

**Document of  
The World Bank**

Report No: 19909-CO

PROJECT APPRAISAL DOCUMENT  
ON A  
PROPOSED LOAN  
IN THE AMOUNT OF US\$225.0 MILLION  
TO  
FOREC  
GUARANTEED BY  
THE REPUBLIC OF COLOMBIA  
FOR AN  
EARTHQUAKE RECOVERY PROJECT

February 25, 2000

Finance, Private Sector and Infrastructure Sector Management Unit  
Country Management Unit for Colombia, Ecuador and Venezuela  
Latin America and the Caribbean Regional Office

## CURRENCY EQUIVALENTS

(Exchange Rate Effective September 30, 1999)

Currency Unit = COP - Colombian Peso

COP1.00 = US\$0.0004965

US\$1.00 = COP2014.00

## FISCAL YEAR

January 1 to December 31

## ABBREVIATIONS AND ACRONYMS

CAS	Country Assistance Strategy
CCF	<i>Caja de Compensación Familiar</i> – Savings and Loans Association
CRQ	<i>Corporación Regional del Quindío</i> – Quindío Regional Development Agency
DNP	<i>Departamento Nacional de Planeación</i> – National Department of Planning
ECLAC	The United Nations Economic Commission for Latin America and the Caribbean
FNC	<i>Federación Nacional de Cafeteros</i> – National Federation of Coffee Growers
FOGAFIN	<i>Fondo de Garantías de Instituciones Financieras</i> – Guarantee Fund for Financial Institutions
FOREC	<i>Fondo para la Reconstrucción y Desarrollo Social del Eje Cafetero</i> – Fund for the Reconstruction and Social Development of Eje Cafetero
GOC	Government of Colombia
IDB	Inter-American Development Bank
INGEOMINAS	<i>Instituto Nacional de Investigaciones Geológicas y Mineras</i> – National Institute of Geological and Mining Studies
IVA	<i>Impuesto de Valor Agregado</i> – Value-Added Tax
NGO	Non-Governmental Organization
UNDP	United Nations Development Program
USAID	United States Agency for International Development

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Sector Manager/Director: Danny Leipziger  
Team Leaders: Eleoterio Codato and Connie Luff

**Colombia**  
**Earthquake Recovery Project**

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Colombia  
Earthquake Recovery Project

## Project Appraisal Document

Latin America and the Caribbean Regional Office  
LCC4C

<b>Date:</b> February 25, 2000 <b>Country Manager/Director:</b> Andrés Solimano <b>Project ID:</b> P065263  <b>Lending Instrument:</b> Emergency Recovery Loan	<b>Team Leaders:</b> Eleoterio Codato and Connie Luff <b>Sector Manager/Director:</b> Danny M. Leipziger <b>Sector:</b> MY - Other Non-sector Specific and UH - Urban Housing <b>Theme(s):</b> Poverty Reduction <b>Poverty Targeted Intervention:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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<b>Project Financing Data</b>				
<input checked="" type="checkbox"/> Loan	<input type="checkbox"/> Credit	<input type="checkbox"/> Grant	<input type="checkbox"/> Guarantee	<input type="checkbox"/> Other [Specify]
<b>For Loans/Credits/Others:</b>				
<b>Amount (US\$m):</b> 225.0 million				
<b>Proposed terms:</b> <input type="checkbox"/> To be defined <input type="checkbox"/> Multicurrency <input checked="" type="checkbox"/> Single currency, US Dollars				
<input type="checkbox"/> Standard Variable <input checked="" type="checkbox"/> Fixed Spread <input type="checkbox"/> LIBOR-based				
<b>Grace period (years):</b>	5			
<b>Years to maturity:</b>	17			
<b>Commitment fee:</b>	0.85% during the first 4 years; 0.75% thereafter			
<b>Service charge:</b>	%			
<b>Front-end fee on Bank loan:</b>	1.0%			
<b>Financing plan:</b> <input type="checkbox"/> To be defined				
	<b>Source</b>	<b>Local</b>	<b>Foreign</b>	<b>Total</b>
	Government	152.00		152.00
	IBRD (including front-end fee)	197.90	27.10	225.00
	<b>Total:</b>	349.90	27.10	377.00
<b>Borrower:</b> <i>Fondo para la Reconstrucción y Desarrollo Social del Eje Cafetero (FOREC)</i> – “Fund for the Reconstruction and Social Development of Eje Cafetero”				
<b>Guarantor:</b> Government of Colombia				

<b>Estimated disbursements (Bank FY/US\$m):</b>				
<b>FY</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
<b>Annual</b>	60.0	100.0	50.0	15.0
<b>Cumulative</b>	60.0	160.0	210.0	225.0
<b>Project implementation period:</b> January 1, 2000 to December 31, 2002				
<b>Expected effectiveness date:</b> April 17, 2000			<b>Closing date:</b> June 30, 2003	
<b>Implementing agency:</b> <i>Fondo para la Reconstrucción y Desarrollo Social del Eje Cafetero (FOREC)</i> – “Fund for the Reconstruction and Social Development of Eje Cafetero”				
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## **A: Project Development Objective**

### **1. Project development objective:** (see Annex 1)

The project would assist the Government of Colombia (GOC) in its efforts to rebuild communities following the devastating effects of an earthquake that struck the coffee growing region on January 25, 1999. The overall Project Development Objective is to assist project beneficiaries normalize economic and social activities through the restoration of essential housing and basic infrastructure following adequate seismic standards. In particular, the project would provide: (a) grants for housing reconstruction and repair for the poorest strata; (b) reconstruction of damaged social infrastructure (i.e., schools, health facilities and community centers); (c) rehabilitation of public infrastructure (i.e., transport, water and sewerage and power systems); (d) improved natural disaster management capacity; (e) restoration of social capital; and (f) strengthened project management capacity.

Bank financing would contribute to the reconstruction program of the disaster-affected region which is estimated to cost a total of about US\$1.6 billion. The proposed loan would complement the US\$93 million reallocated from Loans 3615-CO, 3683-CO, 3871-CO and 3973-CO, as approved by the Board in August 1999 and declared effective on November 11, 1999. These funds would retroactively finance all eligible expenditures incurred by the GOC from January 25, 1999. The reallocated funds are being disbursed and are expected to cover the needs of the reconstruction program until the proposed loan becomes effective. Furthermore, the Inter-American Development Bank (IDB) would provide about US\$180 million, while other donors (USAID, Governments of Italy and Spain) would provide an additional US\$70 million.

### **2. Key performance indicators:** (see Annex 1)

In an emergency operation, the pace of project implementation is one of the most important initial indicators of project performance. Key performance targets have been established for Implementation Indicators, Output Indicators and Impact Indicators (Annex 1). For the Implementation Indicators, appraisal projections on disbursements within each of the five expenditure categories would be used to measure actual performance. Achievements during project implementation with respect to the Output Indicators would be measured through (i) the proportion of completed housing units funded under the project and complying with the seismic and other building codes of the 1998 Building Code; (ii) the proportion of qualifying participants in the target group receiving project assistance; (iii) the proportion of social infrastructure funded under the project and complying with both established community priorities and seismic and related codes; (iv) the proportion of public infrastructure funded under the project and complying with both established GOC priorities and seismic and related codes; (v) the number of micro-zoning studies completed; (vi) improvements in quantifiable indicators for both the emergency response time and the level of preparedness of public entities; and (vii), measurable indicators of satisfaction-level of beneficiaries with the performance of the Non-Governmental Organizations (NGOs) in the reconstruction process. Performance with respect to the Project Impact Indicators will be measured through (i) the number of new housing completed and the number of units repaired, all meeting required seismic and related codes; (ii) the number of families moving out of temporary living facilities; (iii) unemployment and output indicators in the zone and (iv), the number of reconstruction and micro-zoning plans implemented in the affected zone.

## **B: Strategic Context**

### **1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)**

Document number: 17107

Date of latest CAS discussion: 11/18/99

The project is addressed in the CAS Progress Report which was presented to the Board on November 18, 1999. This project will contribute to the overall development objectives of the CAS. Specifically, it will support activities whose goals include: (a) poverty alleviation, (b) restoring infrastructure; and (c) rural development. Furthermore, the reconstruction of the coffee region should act as a mitigating force against the possible infiltration of guerrilla movements, thus supporting the CAS objective of promoting peace and development. The activities to be implemented under this operation are also consistent with the specific development goals outlined in the GOC's National Development Plan 1999-2003.

### **2. Background and strategy:**

An earthquake measuring 6.2 on the Richter scale struck the coffee-growing region of Colombia, with an area of about 1,360 square kilometers in five Departments -- Caldas, Quindío, Risaralda, Tolima and the Valle de Cauca. The initial impact, along with an aftershock of 5.2 and numerous smaller aftershocks, resulted in 1,185 deaths, over 4,000 injuries and more than 150,000 people were left homeless. The municipalities of Armenia, Barcelona, Calarcá and La Tebaida suffered the most extensive property losses. According to geological studies and seismic experts, the coffee-growing zone is traversed by at least two active fault-lines and the reoccurrence of earthquakes should be expected in the region with 15-20 year frequencies. When earthquakes strike the region, the volcanic soil and poorly-compacted filled sites contribute to its vulnerability.

Overall, of the estimated 1.5 million residents in the affected area, about 560,000 suffered some form of earthquake-related losses. The United Nations Economic Commission for Latin America and the Caribbean (ECLAC) estimates damages to be about US\$1.6 billion (or about 30 percent of the regional GDP), including both direct and indirect costs. Direct costs refer to destruction of buildings, losses of household property and commercial equipment, as well as damage to infrastructure. Indirect costs are characterized as losses in wages, production, market share, sales, tax revenue, as well as the actual cost of the relief effort and insurance compensation.

The data on damages indicates that the most important impact has been on the region's housing and social infrastructure, such as schools, health centers, hospitals and cultural/historical buildings. Initial estimates indicate that up to 90,000 housing units (about 70 percent of the total loss) suffered some type of damage (see Annex 5, Tables A-B, for a summary of housing losses). Most of the homes in the disaster-affected area have tiled roofs and walls that are made of plaited cane and mud panels or bamboo. However, other material such as bricks and cement have also been used without adequate reinforcement. Lightweight panels and bamboo walls tend to cause less injuries and loss of life than thick adobe or brick walls. The region's infrastructure also suffered considerable damage including the airport in Armenia, primary and secondary roads, transmission lines and the water and sewerage systems. While the earthquake did not cause direct damage to coffee trees and other agricultural crops, the damage to processing and storage structures and farm equipment, workers' homes as well as assets of other input suppliers (fertilizers, pesticides, financing, transport, etc) has been substantial.

The region had suffered an economic downturn over the last few years due to low international coffee prices that was exacerbated by the earthquake. Approximately 80 percent of those affected by the disaster have low-incomes and could not afford to rebuild or repair their homes. If these affected groups are not assisted quickly and systematically, the situation could deteriorate both from a macro-economic as well as social and cultural perspectives.

With such geographically widespread and substantial damages in so many sectors, formulating an appropriate response has not been an easy task. The GOC, in coordination with various relief agencies, managed to feed the disaster-affected residents and control outbreaks of diseases and related health problems which usually occur after such disasters.

*Measures taken by the GOC during the relief phase:*

- placing the area under military control to prevent looting and to coordinate relief efforts;
- relocating the President's office temporarily to the affected area;
- appointing a prominent national figure as Executive Coordinator of the Presidency for Emergency and Reconstruction Activities;
- appointing an independent private company (KPMG-Peat Marwick) to audit all relief assistance;
- signing of Presidential Decrees, including: (a) creation of a Regional Reconstruction Fund "Fondo para la Reconstrucción y Desarrollo Social del Eje Cafetero" (FOREC); (b) definition of subsidy/credit conditions for shelter reconstruction; and (c) authorization for additional budgetary expenditures; and,
- investing over US\$2.0 million in temporary shelter to house over 51,000 people left homeless by the earthquake.

*Measures taken by the GOC during the reconstruction phase:*

After the first few days of shock, all levels of government mobilized to deal with the disaster. The National Government and affected municipalities reached a consensus that the private sector and NGOs were best equipped to handle the day-to-day efforts to rebuild the affected communities. The most urgent priorities for reconstruction were identified with the assistance of community groups and NGOs. These groups play a major role in organizing and implementing reconstruction activities and in promoting follow-up actions such as community development and facilities maintenance. The Coffee Growers Association play a key role in the planning and implementation of rural reconstruction activities. They prepared a detailed damage assessment by sector, location, and profile of those affected in the rural areas, while the Solidarity Network prepared a similar report for the urban sector.

At project appraisal, it was estimated that about 50% of the building debris had been removed. The estimate for Armenia is somewhat higher at about 70%. Most of the debris has been placed in temporary disposal locations, which are not considered technically suitable for final disposal. In some cases, these locations present a considerable public health and safety risk. The GOC with support from the IDB has contracted an Italian consulting firm to prepare a feasibility study for debris disposal (including recycling) in the 28 municipalities affected by the earthquake. The Environmental Management Plan (see Annex 6 for a summary) takes the results of this study into account and suggests a management process for ensuring that over the long term the debris is disposed of in an environmentally benign manner.

Finally, the GOC has allocated about US\$4.6 million in housing subsidies. This investment benefits 3,227 people whose homes were destroyed or damaged by the earthquake. In addition, approximately US\$1.7 million has been assigned for the purchase of plots of land for those families who lived in high risk areas, allowing the construction of 5,440 homes.

### **3. Sector issues to be addressed by the project and strategic choices:**

Normally, sector issues are not addressed in Emergency Recovery Loans (ERL). However, this project will incorporate several features which are consistent with GOC policies such as direct targeted subsidies, private sector construction and transparency in beneficiary selection. A detailed discussion of issues and

the shelter reconstruction program supported by the project can be found in Annex 5. In the housing sector, Colombia has a long tradition of active and multi-faceted government intervention. Over the last four decades more than US\$1 billion has been invested in various shelter programs. The GOC has also created specialized housing finance mechanisms and entities along with targeted subsidy systems programs. The Unit of Constant Purchasing Power System (UPAC), established in 1972, is one of the country's most enduring attempts to support the sector. This program has recently come under increasing criticism from borrowers and lenders, and several lending institutions are facing serious loan-recovery problems with many homeowners in default. The Colombian Congress has recently begun implementation of a new housing policy.

## **C: Project Description Summary**

**1. Project components:** (see Annex 2 and Annex 5 for a detailed description and Annex 3 for a detailed cost breakdown)

Bank financing will include a US\$225 million loan and the US\$93 million provided under the four loan amendments. The proposed project will have five components, as follows:

- (i) **Shelter Assistance** (US\$150 million). This component would fund the repair and reconstruction of about 43,480 units partially damaged, about 17,550 totally damaged and about 18,420 units structurally damaged in the affected zone. It would finance subsidies, in the form of grants, to owners of units who meet criteria established by the GOC and agreed to by the Bank. Subsidies would be based on the actual cost of repair or rebuilding subject to a maximum amount of US\$6,000 equivalent per unit, which would provide a minimum housing solution for each eligible family. It would also assist the GOC to provide a subsidy for new house construction to displaced renters who are characterized as vulnerable (i.e., female head of household, the elderly and those in poor health). Other renters in the affected zone will be given special priority in the GOC's ongoing housing subsidy program.
- (ii) **Rehabilitation and Retrofitting of Social Infrastructure** (US\$75 million). This component would consist of retrofitting of vulnerable structures which survived the earthquake but which are not in compliance with current or proposed new building code in the affected zone. This component would finance the rebuilding and repair of social infrastructure (i.e., schools, health facilities and community centers), including consulting services required for the design and supervision of such subprojects.
- (iii) **Rehabilitation of Public Infrastructure** (US\$115 million). This component would provide funding for rebuilding and repairing damaged water and sewerage, power, and transport systems, as well as environmental protection investments, in the affected area, including consulting services required for the design and supervision of such subprojects.
- (iv) **Capacity Building for Natural Disaster Management** (US\$7 million). As part of the reconstruction effort associated with a natural disaster, there is also the need to prepare reconstruction plans which emphasize the strengthening of prevention, mitigation and management skills of public sector agencies. Important studies would be undertaken such as microzoning of high risk areas, land use mapping, geological and geo-technical research, feasibility studies for debris disposal and the preparation of new building codes. The Government of Italy would provide parallel financing to cover the costs of expatriate experts in support of these studies. In addition, this component would finance works and the purchase of equipment (seismic and other) associated with disaster prevention and mitigation efforts supported by the project.
- (v) **Social Capital Restoration** (US\$8 million). This component would finance the costs of activities to restore the social cohesiveness and studies to identify both public and private sector opportunities to the reactivation of the regional economy. Such activities would include community hearings and workshops

to enhance cultural and social cohesiveness, as well as psychological support to disaster-affected families, etc. It would also finance the purchase of equipment required for carrying out such activities, and the design and implementation of training programs as well as studies aimed at strengthening the communities' capacity to re-establish the livelihood of the most vulnerable groups, such as the training of construction craftsmen, for example.

(vi) **Project Management** (US\$19.75 million). This component would help to finance project management costs incurred by FOREC, such as consulting services and training required to strengthen its project implementation capacity, the purchase of vehicles and equipment, the design and implementation of a communication campaign, and incremental administrative costs under the project, such as the salaries of its technical staff.

Component	Sector	Indicative Costs (US\$M)	% of Total	Bank-financing (US\$M)	% of Bank-financing
1. Shelter Assistance	UH	150.00	40.0	100.00	67.0
2. Rehabilitation and Retrofitting of Social Infrastructure	MY	75.00	20.0	40.00	53.0
3. Rehabilitation of Public Infrastructure	MY	115.00	30.7	60.00	52.0
4. Capacity Building for Natural Disaster Management	BI	7.00	1.9	5.00	71.0
5. Social Capital Restoration	SY	8.00	2.1	5.00	63.0
6. Project Management	BY	19.75	5.3	12.75	65.0
<b>Total</b>		374.75	100.100	222.75	59.0
<b>Total Project Costs</b>		374.75	100.0	222.75	59.0
<b>Interest during construction</b>				0.00	
<b>Front-end fee</b>		2.25		2.25	100.0
<b>Total Financing Required</b>		377.00		225.00	60.0

## 2. Key policy and institutional reforms supported by the project:

According to OP 8.50, long term economic, sectoral or institutional development goals are not addressed under ERLs, nor do they include specific conditionality linked to macro-economic policies. However, an important output of the capacity building component would be improved performance of key public agencies to manage and respond to natural disasters.

## 3. Benefits and target population:

In addition to restoring assets lost as a result of the earthquake, the project is expected to generate the following benefits: (i) about 75,000 direct and 25,000 indirect jobs for skilled and semiskilled laborers; (ii) the reactivation of the construction industry; (iii) housing subsidies to an estimated 76,000 beneficiaries between owners and renters; (iv) reduction of the risk to families who had their homes in unsafe areas by supporting their resettlement to safer areas<sup>1</sup>; (v) increase in social capital gained through

<sup>1</sup> Bank procedures for Emergency Recovery Assistance (OP 8.5) are applied in this project. The GOC has established the eligibility criteria and compensation levels for families that would be resettled.

the partnership between local government, NGOs and community; and (vi) economic gains to the rural population by investments in reconstruction of agricultural assets, forestry and rural tourism.

The project would help to lessen the negative economic and social impacts of the earthquake, especially for the poor. Bank assistance is targeted at the most vulnerable groups by providing direct subsidies for rebuilding their homes. Beyond this, it would help earthquake survivors to reconstruct their lives – not only through the reconstruction of homes and public/social infrastructure that is seismic-resistant, but also by reconstituting the social fabric of families and communities. In addition, the project would assist the GOC in its efforts to improve institutional capacity to respond to natural disasters.

Component 1 has been designed to target Bank support to the most vulnerable groups. Only affected families with household income below four minimum salaries per month would be eligible. The GOC has collected reliable data on this population which should facilitate the rapid and efficient transfer of resources to these households. In addition, information regarding vulnerable groups (such as female-headed households, the elderly, handicapped and those in poor health) would be provided by NGOs working in the region. All residents of the affected area will benefit from Components 2-5 as these have been designed to respond to damages which impact the population as a whole.

Furthermore, the use of NGOs in the management of reconstruction activities contributes to the improvement of governance and transparency in this type of intervention. Given the participatory approach used by NGOs, affected communities have been given a voice in the decision-making process and a sense of ownership and shared responsibility for the outcome of the reconstruction.

#### **4. Institutional and implementation arrangements:**

##### *Institutional arrangements*

*Fondo para la Reconstrucción y Desarrollo Social del Eje Cafetero* (FOREC) would be the borrower and executing agency while the Republic of Colombia would be the guarantor. The Borrower would deposit the loan proceeds in a special foreign-exchange account to be established in a commercial bank acceptable to the Bank.

FOREC is a national entity of a special nature created in response to the earthquake emergency by Decree-Law 197/1999 and accountable to the Presidency of Colombia. This agency has been endowed with authority over national resources and financial autonomy, allowing it to finance, execute, and coordinate the economic, social and ecological reconstruction of the disaster-affected region. FOREC is governed by a board of directors of nine members, including a chairperson, appointed by the President (Decree 199/99), while its management is entrusted to an Executive Director, named by the board. Of the nine members of the board, six are from the private sector and three from the public sector, representing the interests of local, regional, and national entities. The National Department of Planning (DNP) is the technical secretariat of the board.

The principal functions of FOREC are to: (a) design operational guidelines for implementation of reconstruction activities; (b) work with mayors and other officials to define the overall framework for the reconstruction program; and (c) oversee the implementation of the reconstruction effort, including preparation of terms of reference for consultants, review of procurement for goods and works, review of subproject proposals and monitoring and evaluation of activity implementation, including technical and procurement audits. These functions are carried out through a Technical Committee formed by chief advisors in the areas of: housing and urban development; infrastructure and public services; economic development; education; environment; health; NGOs and community organization; rural development;

communications; external relations; finance; and, information management, monitoring and evaluation. As part of its role as the focal point for the recovery of the affected area, this committee deliberates on Zonal Action Plans that comprise the specific subprojects and budgets for the reconstruction of each of the 32 zones into which the disaster-affected region has been divided. Each Plan is submitted for the Committee's consideration by the NGO/Zone Manager who has the responsibility to advance the reconstruction program in its respective zone in the most responsive, timely, and participatory way possible.

#### *Implementation arrangements*

The project would be implemented over a period of about three-years ending December 31, 2002. The Closing Date would be June 30, 2003.

Project implementation would be governed by an Operational Manual which has already been put into effect for the utilization of funds reallocated under other four Bank loans. The substantive aspects of this manual would be changed only with the Bank's concurrence. The Operational Manual includes the eligibility criteria and procedures for the review and approval of individual financing proposals/subprojects, as well as guidelines for overall management and implementation of reconstruction activities by FOREC and the 32 Zone Managers (NGOs).

For carrying out its responsibilities, FOREC would enter into agreements with different local and national organizations, both governmental and non-governmental. Furthermore, to facilitate quick and efficient project implementation, the disaster-affected area has been divided into 32 zones in which the implementation of reconstruction activities would be managed by selected NGOs. These NGOs would work closely with affected communities in prioritizing reconstruction activities and would be responsible for identifying beneficiaries and managing housing subsidies. They would also be responsible for submitting all investment and housing grant proposals for FOREC's approval, as well as managing and supervising all reconstruction activities in their respective zones. If the NGO/Zone Manager is responsible for directly carrying out certain activities, then supervision would be contracted by FOREC with a third party.

Project funds would be managed by a Trust Fund Agency (the fiduciary) already hired by FOREC. The fiduciary would hold all FOREC's accounts in local currency and, following instructions from FOREC's Executive Director, would transfer funds to the Zone Managers or contractors hired by them, all in accordance with the terms and conditions stipulated in the contract signed between FOREC and each Zone Manager or between the Zone Manager and each contractor. With guidance and support from the Bank, FOREC has established an appropriate financial management mechanism. Through the final financial management assessment, certain areas still needing improvement were identified and a time-bound action plan was agreed with project management. The satisfactory implementation of this action plan would be completed not later than September 20, 2001 (i.e., 18 months after the Board presentation date).

Reconstruction activities carried out by FOREC will be monitored by means of standard government control mechanisms and will be subject to external financial and technical audits. Moreover, citizen supervisory panels will play a central role as control mechanisms for the affected communities. The reconstruction program will also be subject to review by a monitoring and evaluation system arranged with a network of nationally and regionally prestigious universities and to full-time public scrutiny of its activities available through the Management Information System. During project implementation, FOREC would prepare semi-annual audit and progress reports and present them to the Bank no later than two months after the end of each calendar semester. These progress reports would describe achievements in implementing the project, provide a critical assessment of problems arising during project execution and propose remedial actions.

## D: Project Rationale

### 1. Project alternatives considered and reasons for rejection:

The IDB and the Bank agreed with the GOC that a program of direct subsidies for disaster-affected low-income owners and renters would be preferable to that of interest rate subsidies for housing reconstruction loans to homeowners, as initially proposed. Especially, as disaster-affected families lost their assets and employment, they would not be able to obtain credit from a financial institution. Furthermore, given the financial crisis the Colombian banking system is currently facing in the wake of economic recession, purely market-based financing of new housing for risky groups was deemed unlikely to be available. In addition, as a result of discussions between government authorities, IDB and the Bank, the GOC decided that it would be necessary to include a program to assist vulnerable renters.

### 2. Major related projects financed by the Bank and/or other development agencies:

(completed, ongoing and planned)

Sector issue	Project	Ratings (Bank-financed projects only)	
		ICR Rating	OED Rating
<b>Completed Projects</b>			
Emergency Rehabilitation and Reconstruction	Popayan Region Earthquake Reconstruction Project – Loan 2379	Satisfactory	Satisfactory
Emergency Rehabilitation and Reconstruction	Mexico – Earthquake Rehabilitation And Reconstruction Project – Loan 2665	Satisfactory	Satisfactory
Emergency Rehabilitation and Reconstruction	North China Earthquake Reconstruction Project – Credit 2091	Satisfactory	Satisfactory
Emergency Rehabilitation and Reconstruction	Armenia Earthquake Reconstruction – Credit 2562	Satisfactory	Satisfactory
Emergency Rehabilitation and Reconstruction	El Salvador – Earthquake Reconstruction Project – Loan 2873	Satisfactory	Unsatisfactory

Ongoing Projects	Project	Implementation Progress	Development Objective
Emergency Rehabilitation and Reconstruction	Honduras Hurricane Emergency - Loan 3159	Satisfactory	Satisfactory
El Niño Emergency Recovery Project (Ecuador, Peru, Bolivia, etc)	El Niño Emergency Recovery Project (Ecuador, Peru, Bolivia,) – Loan 4257-EC	Satisfactory	Satisfactory

### 3. Lessons learned and reflected in the project design:

According to OED's Précis No. 174 of 1998, the following are the main lessons of Bank experience with natural disaster response, all of which have been incorporated in the project design:

- project design should be simple, based on extensive participation by the local community/beneficiaries, and take into account local implementation capacity;
- implementation should be flexible to ensure responsiveness to community needs. Attempts to

use the emergency operation to promote social reform, relocation, and land acquisition should be avoided;

- if feasible, in situ reconstruction should be promoted to take advantage of existing infrastructure and community facilities, while minimizing resettlement and its attendant social dislocation. This should be combined with self-help efforts in low-cost reconstruction;
- along with the reconstruction of damaged infrastructure, local vulnerabilities should be identified and addressed so as to be reduced in ways that lead to durable solutions. To ensure the sustainability of infrastructure reconstructed after the disaster, long-term measures to address disaster mitigation should be devised. Options to be considered (within the context of what is affordable) include financial incentives, land use and management practices, a review of land tenure patterns, upgraded building codes and enforcement programs, training for construction craftsmen, and other nonstructural measures to lessen vulnerability;
- approaches selected should be cost-effective. Thus, while families should be allowed to rebuild according to their tastes and incomes, they should also be provided with guidance in disaster-resistant building techniques, as well as appropriate incentives. Low-cost reconstruction is desirable, but economizing on the structure of buildings is not cost-effective given recurrent disasters. Extremely poor areas, informal settlements, and areas where building codes are not enforced require special treatment;
- to avoid reconstruction delays, streamlined decision-making and procedures for contracting civil works should be put in place;
- emergency projects require a strong positive cash flow and special attention to the design and implementation of disbursement arrangements. To meet these requirements, the emergency loan should be quick-disbursing, and bottlenecks to cash flow should be minimized through provision of guidelines, sample bidding documents, technical assistance to first-time borrowers, and simple local disbursement procedures;
- emergency assistance should promote equitable development. For example, a policy to deal with renters in the post-disaster context is required. The use of public money to provide multiple housing replacements for the wealthy, while doing nothing for the renter, is inequitable;
- local institutions should be strengthened so that they are better able to cope with the current event and stronger the next time around. Institutional development objectives should be stated in emergency recovery project documents, and they should include measurable indicators so that the degree to which they are attained is verifiable.

#### **4. Indications of borrower commitment and ownership:**

In order to provide immediate relief, key institutions in the disaster-affected region such as the Coffee Growers Association and the Solidarity Network worked closely with national and local governments to assist the most seriously affected families and communities. To implement reconstruction activities, and after reaching consensus that the private sector and NGOs were best equipped to do so, the GOC moved quickly to engage qualified NGOs. Furthermore, the GOC has issued essential legislation for a speedy implementation of reconstruction efforts and provided temporary housing for 24,000 people and over \$5.0 million in resources to assist these communities. The GOC also legislated a new tax on financial transactions to help fund the reconstruction effort. This tax is expected to generate close to US\$1.0 billion in funds.

## **5. Value added of Bank support in this project:**

The Bank's role as a knowledge institution and its international experience in other disaster relief operations have been vital in the design of this operation. The Colombian authorities have sought the Bank's advice in shaping the policies and procedures that govern the project. For example, the direct subsidy scheme for housing and the inclusion of assistance to vulnerable renters were the direct result of consultations with the Bank. Since the day of the disaster, the Bank has worked closely with the GOC in identifying priority actions for FOREC and in establishing the guidelines for the reallocation of funds from four existing loans. Bank involvement has also been important in identifying environmental and social issues, especially those related to the more vulnerable groups, and in providing guidance for the formulation of appropriate policies to deal with them. The Bank has also provided guidance to FOREC with setting up appropriate financial management and accounting systems. Bank support from the Resident Mission has helped in numerous areas, especially in project design and the provision of advice on environmental issues and in the preparation of the Project Operations Manual.

## **E: Summary Project Analysis:**

### **1. Economic and Fiscal Impact:**

Because the project is meant to restore assets destroyed by the earthquake, it is not expected to generate any additional fiscal responsibilities. However, the reconstruction costs would have put pressure on an already delicate fiscal situation. To deal with this problem, and as was said before, the GOC enacted a new tax on financial transactions which is expected to generate close to US\$1.0 billion in funds to help finance the reconstruction effort. The additional revenues generated by this tax should offset the public finance gap created by the earthquake.

### **2. Technical:**

All subprojects would be included in Zone Reconstruction Plans and implemented upon their approval by FOREC. Zone Reconstruction Plans would be prepared by the corresponding NGOs in collaboration with the impacted communities and local authorities. The investment program of each zone would be defined according to damage assessments of physical and social losses.

To ensure sustainable solutions for housing and infrastructure reconstruction, INGEOMINAS is doing the micro-zoning of the disaster-affected area. This would provide information on four different types of vulnerability: seismic, volcanic, landslides and flooding. A risk map for each municipality would define high-risk areas and those suitable for construction. The reconstruction effort would require that structures be built or repaired to the 1998 seismic-resistant building code, which meets international standards. Public infrastructure (i.e., schools, hospitals, and water, sewerage and power systems, etc.) would be reconstructed according to sector standards and regulations. The corresponding utility or regulatory agency would ensure fulfillment of these norms. The design and construction would be contracted with foreign and local consulting firms.

All subprojects would be subject to an independent technical supervision. FOREC would directly contract supervision when the NGO is the executing agency or for contracts above US\$ 75,000.00 equivalent. Otherwise, NGOs would be responsible for supervision. NGOs would also be responsible for the training of local construction workers. This training would focus on new building techniques and disseminating knowledge of seismic-resistant building codes and standards. It is expected that up to 2,000 construction workers would be trained.

### **3. Institutional:**

#### **a. Executing agency (FOREC):**

As discussed above, FOREC is responsible for approving, monitoring, supervising and evaluating the reconstruction and social development activities in the region. As the reconstruction program has a clearly participatory approach and builds upon the strong social capital in the region, all activities would be developed in collaboration with the community and managed by NGOs with guidance from state and municipal governments. The model of intervention for the reconstruction and social development of the disaster-affected region is therefore based on a decentralized model.

Although FOREC has no executing capacity of its own, it has put together an important team of professional advisors on reconstruction and social development issues. FOREC's board of directors and executive director will base their policy decisions on the technical advice of 13 senior FOREC sector professionals, who meet as the National Technical Committee. In addition to these 13 sector professionals, FOREC is comprised of 5 finance and budget staff, 5 legal advisors, 30 junior professional staff, and 20 support staff. FOREC headquarters is located in the City of Armenia.

With regard to the management of funds, FOREC has established fiduciary accounts with a financial institution to fund approved reconstruction and social development activities, including payments to NGOs and other contractors and suppliers hired directly by FOREC or NGOs. FOREC has in place an integrated financial system (RECREAR) that ensures adequate financial and accounting controls. Other project implementation mechanisms, such as external audits and community supervision would provide adequate levels of control to ensure the transparent use of funds.

#### **b. Project management (NGOs):**

As mentioned before, management of project activities would be carried out by the 32 NGOs selected by FOREC. These NGOs have been selected according to criteria agreed upon with the Bank through a competitive process. The criteria were defined in order to ensure the selection of highly qualified NGOs. Such criteria included number of years of operation, amount of contracts executed, proof of relevant technical capacity, etc.

### **4. Social:**

The project has put social development at the heart of its approach and one of the objectives of the project is to restore social capital. Specifically, the project would target the housing subsidies to benefit the most vulnerable social groups, i.e., low-income families, including renters, in both urban and rural areas (see Annex 5, Table C, for percentage of population suffering losses by income strata). The intervention model involves a highly participatory, inclusive approach. No negative social impacts are foreseen as a result of the project. On the contrary, it is expected that there would be positive impacts on the groups most affected by the earthquake.

The project is expected to generate the following social benefits: (i) about 75,000 direct and 25,000 indirect jobs for skilled and semiskilled laborers; (ii) housing subsidies to an estimated 76,000 beneficiaries between owners and renters; and (iii) increase in social capital gained through the partnership between local government, NGOs and community.

### **5. Environmental assessment:**                      Environmental Category     A            B            C

The GOC has in place an established system of environmental laws and regulations. Immediately after the earthquake, several environmental experts from the GOC, IDB, and the Bank visited the affected zone

to review the situation. In line with the findings and recommendations of these experts, the GOC prepared an Environmental Management Plan (see Annex 6 for a detailed discussion of environmental issues and a summary of the Plan). A final version has been submitted and found to be satisfactory to the Bank. This Plan has the following objectives: (i) mitigate the environmental impacts of the earthquake; (ii) ensure that environmental considerations are incorporated into the region's reconstruction program; and (iii) ensure that natural resources are available for the reconstruction and that they are managed in a sustainable manner. Specifically, the Plan provides environmental guidelines for the following: (i) demolition of damaged buildings; (ii) erosion control; (iii) transportation of materials; (iv) management of liquid and solid waste, including hazardous materials; (v) management of construction activities to minimize air and noise pollution; and (vi) measures related to public safety. Among the main areas of focus are:

- (a) demolition, debris removal and appropriate disposal. During the rescue phase, it was essential to gain access to the victims and, therefore, debris was dumped in several temporary holding sites. Since that time, debris has been recycled when possible and permanent sites have been identified for the disposal of non-recyclable debris. Studies are currently underway to locate additional permanent sites. It is estimated that about 50 percent of the debris has been removed in the disaster-affected region and that, in Armenia, this percentage reaches 70. However, most of this debris has been placed in temporary disposal locations, which are not suitable for final disposal. In some cases, these locations present a public health and safety risk. The GOC, with support from the IDB, has contracted an Italian consulting firm to prepare a feasibility study for debris disposal and recycling in the 28 municipalities affected by the earthquake.
- (b) sustainable harvesting of bamboo used in housing construction. Bamboo is an important resource for the reconstruction of the region. Over the last few months, the demand for bamboo has increased. For the most part, this demand is being met by the available supply produced in the region. However, as the reconstruction effort intensifies, there is considerable concern that the harvesting of the region's bamboo will not be sustainable in addition to creating additional environmental hazards. The local environmental agency has a program to foster commercial bamboo plantations. This agency will provide technical assistance and bamboo seedlings while the municipalities will provide land and labor;
- (c) mitigating measures for public safety, land and materials management, air quality and noise levels during construction; and,
- (d) prevention of resettlement in hazardous and vulnerable zones. Relocated families are entitled to monetary compensation according to Presidential Decree No. 196 of January 30, 1999. To ensure durable solutions to reconstruction, the GOC has started to identify vulnerable areas where construction would be either prohibited or subject to strict enforcement of enhanced building codes. Most of the urban areas in the region occupy areas identified as highly susceptible to seismic events as well as at high risk for flooding and mud slides. Most of these settlements are along hillsides and in natural drainage areas. This situation is particularly acute in Armenia where thousands of families reside in high-risk areas. Following the earthquake, Armenia's mayor signed a legal decree (No. 0072) declaring these areas at high risk. With support from FOREC, INGEOMINAS is preparing a study to identify areas of high seismic risk for the 28 municipalities that were impacted by the earthquake.

A special committee comprising representatives from local and national environmental agencies, including a representative from FOREC, has been established to oversee the implementation of the Environmental Management Plan. Through NGOs, FOREC's environmental specialist will work in close collaboration with the disaster-affected communities to address environmental issues.

## 6. Participatory approach:

The model of intervention designed for the reconstruction and social development of the disaster-affected region, based on the principles of participation, decentralization and transparency, is highly inclusive of key stakeholders. The structure and functioning of the mechanisms established under the reconstruction program facilitate the representation and negotiation of the interests of the parties concerned. In effect, FOREC's board of directors is made up of nine members representing government, private and civil society sectors. The management of project activities will be carried out by specialized NGOs in the urban area and by the Coffee Growers Association in rural area. These organizations, in turn, would collaborate closely with local government and organized beneficiary groups.

Key stakeholders would play a major role in the identification of needs, as well as the design, organization and implementation of activities. The subprojects comprised in the reconstruction plans for each zone would reflect a consensus among citizens and local authorities. FOREC and the NGOs would be accountable to local governments, communities and beneficiary groups by providing public information on a continuing basis. Citizens committees have been formed to oversee the implementation of this process.

This model of intervention is viewed by the GOC as an opportunity to try out a new approach to regional development. It is hoped that the expanded use of this model could contribute to bringing about lasting economic and social gains, as well as to establish an environment for peaceful co-existence.

The table below summarizes the key beneficiaries and stakeholders of the project and the level of participation expected, using four critical dimensions: information sharing (IS); consultation (CO); joint decision-making (DM); and self-management (SM).

Primary Beneficiaries	Information Sharing	Consultation	Joint Decision Making	Self Management
Owners and Renters	X	X		
Local Governments	X	X	X	
Local NGOs		X	X	
Producers		X	X	X
Public officials of social services	X	X	X	

Other Stakeholders	Information Sharing	Consultation	Joint Decision Making	Self Management
FOREC	X	X	X	X
NGOS of Management Zones	X	X	X	X
Departmental Government	X	X	X	
Other Donors (nat. intern.)	X	X	X	X
General Public	X	X		

## F: Sustainability and Risks

### 1. Sustainability:

As this project addresses an emergency situation, no provision will be made to carry over the organizational structure or direct budgetary support beyond the project execution timeframe. However, the project would finance the strengthening of both national and local governments' ability to respond to future natural disasters. In addition, the reconstruction of public infrastructure and housing will be done according to the 1998 seismic-resistant building codes, thus ensuring the sustainability of project outputs.

**2. Critical Risks:** (reflecting assumptions in the fourth column of Annex 1)

<b>Risk</b>	<b>Risk Rating</b>	<b>Risk Minimization Measure</b>
<b>From Outputs to Objective</b>		
Major earthquakes would hit the area during the reconstruction phase.	N	The project would improve the capacity of both national and local governments to respond to natural disasters.
Lack of incentives to attract participants for housing unit reconstruction with adequate seismic standards.	M	Public communication campaign to stress the dangers of not reconstructing according to adequate seismic standards. In addition, local governments would strictly enforce building codes.
<b>From Components to Outputs</b>		
Lack of coordination among governmental/non-governmental organizations and beneficiaries.	S	Stress the importance of effective consultation and communication among these entities.
Poor qualification process followed for selection of local contractors.	S	Project launch workshop would stress proper qualification processes.
Lack of transparency in the development of community reconstruction plan.	M	Strengthen the checks and balances in the existing participatory approach used in the development of community reconstruction plans.
Deterioration of security situation within the project area.	M	Strengthen the economic regeneration of the coffee region to mitigate against the infiltration of guerrilla movements.
Inadequate supply of building materials available on the local market.	M	Strengthen competition by allowing national and international suppliers to enter the regional market.
<b>Overall Risk Rating</b>	<b>M</b>	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

**3. Possible Controversial Aspects:**

- (a) political sensitivities could arise from having NGOs brokering between local authorities and the disaster-affected communities; and,
- (b) the participatory, decentralized and transparent model adopted for the operation has resulted in delays in the start up of reconstruction activities. However, it is expected that this model would ensure enhanced governance and, thus, produce better results in the end.

**G: Main Loan Conditions**

**1. Effectiveness Conditions:**

Established a set of final indicators, acceptable to the Bank, required to monitor the progress of the project and the attainment of its objectives.

**2. Other :** (classify according to covenant types used in the Legal Agreements)

Financial: within eighteen months after the expected date of Board approval, carry out a time-bound action plan acceptable to the Bank for the strengthening of the Borrower's financial

management system in order to enable the Borrower, not later than September 20, 2001, to prepare quarterly Project management reports acceptable to the Bank.

### H: Readiness for Implementation

1. a) The engineering design documents for the first year's activities are complete and ready for the start of project implementation.

1. b) Not applicable.

2. The procurement documents for the first year's activities are complete and ready for the start of project implementation.

3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.

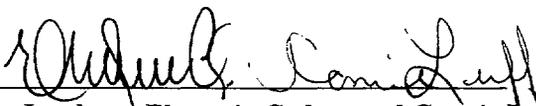
4. The following items are lacking and are discussed under loan conditions (Section G):

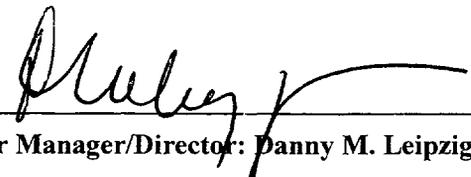
- a) a monitoring and evaluation system required to check implementation progress of the project and the attainment of its objectives; and
- b) a financial management system that would enable the Borrower to prepare quarterly project management reports acceptable to the Bank.

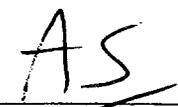
### I: Compliance with Bank Policies

1. This project complies with all applicable Bank policies.

2. The following exceptions to Bank policies are recommended for approval. The project complies with all other applicable Bank policies.

  
Team Leaders: Eleoterio Codato and Connie Luff

  
Sector Manager/Director: Danny M. Leipziger

  
Country Manager/Director: Andrés Solimano

**Annex 1: Project Design Summary  
COLOMBIA: Earthquake Recovery Project**

<b>Hierarchy of Objectives</b>	<b>Key Performance Indicators</b>	<b>Monitoring &amp; Evaluation</b>	<b>Critical Assumptions</b>
<b>Sector-related CAS Goal:</b>	<b>Sector Indicators:</b>	<b>Sector/ country reports:</b>	<b>(from Goal to Bank Mission)</b>
Mobilize existing and new project resources to facilitate rapid recovery from the earthquake of January 25, 1999, in support of the CAS goal of infrastructure restoration and rural sector recovery.	<ul style="list-style-type: none"> <li>Positive trend in regional GDP growth following Jan. 25, 1999 earthquake.</li> </ul>	<ul style="list-style-type: none"> <li>Government economic statistics and reports;</li> <li>Bank analytical work (occasional)</li> </ul>	<ul style="list-style-type: none"> <li>The poor will benefit from restoration of infrastructure and rural sector recovery in the region;</li> </ul>
<b>Project Development Objective:</b>	<b>Outcome / Impact Indicators:</b>	<b>Project reports:</b>	<b>(from Objective to Goal)</b>
Project beneficiaries resume normal economic and social activities as a result of the restoration of essential housing and basic infrastructure built according to adequate seismic standards.	<ul style="list-style-type: none"> <li>Significant increase in the number of housing starts and the number of repaired facilities meeting seismic standards in the earthquake-affected areas.</li> <li>Progressive reduction in the number of families living in temporary quarters;</li> <li>Significant improvement in economic indicators which reflect a positive trend in the earthquake-affected areas;</li> <li>Reconstruction &amp; micro-zoning plan implemented in earthquake affected areas.</li> </ul>	<ul style="list-style-type: none"> <li>FOREC quarterly reports;</li> <li>Supervision mission reports;</li> <li>Evaluation mission reports (mid-term &amp; final);</li> </ul>	<ul style="list-style-type: none"> <li>Effective coordination among various donors during the recovery period.</li> </ul>
<b>Output from each component:</b>	<b>Output Indicators:</b>	<b>Project reports:</b>	<b>(from Outputs to Objective)</b>
<p>1. Access restored to participant-owned housing units in target areas through reconstruction activities which comply with adequate seismic standards.</p> <p>2. Public access restored to a minimal level of social infrastructure in target areas, with NGO management.</p> <p>3. Public access restored to a minimal level of public infrastructure in target areas</p>	<p>1. 100% of completed housing units funded under the project comply with seismic &amp; other construction / building standards in the 1998 Building Code; 100% of participants receiving subsidies qualify under the project's definition of target group (as measured by independent and periodic random audits of participants, designed for statistical validity).</p> <p>2. 100% of social infrastructure funded under the project, according to priorities identified and plans agreed between government agencies and affected communities, comply with seismic &amp; other standards;</p> <p>3. 100% of public infrastructure funded under the project, according to priorities identified and plans agreed between government agencies and affected communities, comply with seismic &amp; other standards;</p>	<ul style="list-style-type: none"> <li>FOREC quarterly reports;</li> <li>Independent participant audit reports, designed to verify standards compliance and participant qualifications (periodic);</li> <li>Supervision mission reports;</li> <li>Evaluation mission reports (mid-term &amp; ICR);</li> <li>Report from the team of international experts in emergency preparedness (output 4);</li> <li>Beneficiary survey report (for output 5);</li> <li>Financial and technical audit reports (semi-annual)</li> </ul>	<ul style="list-style-type: none"> <li>No major earthquakes during the reconstruction phase</li> <li>Adequate incentives in component 1 to attract participants for housing unit reconstruction with adequate seismic standards.</li> </ul>

<p>4. Government capacity to respond to similar public emergency situations enhanced.</p> <p>5. Social disruption minimized during reconstruction efforts.</p>	<p>4. Micro-zoning studies completed; satisfactory response times achieved by government entities as part of emergency simulation exercises; favorable review of emergency preparedness by independent team of international experts;</p> <p>5. Favorable perception of beneficiaries regarding the government and NGO role in the delivery and management of reconstruction activities (as per beneficiary survey).</p>		
<p><b>Project Components / Sub-components:</b></p>	<p><b>Inputs: Implementation Indicators/ budget for each component</b></p>	<p><b>Project reports:</b></p>	<p><b>(from Components to Outputs)</b></p>
<p><b>1. Shelter Assistance</b> Repair and reconstruction of about 43,480 units partially damaged, about 17,550 totally damaged and about 18,420 units structurally damaged in the affected zone.</p> <p><b>2. Rehabilitation and Retrofitting of Social Infrastructure</b> Concessionary funding for priority retrofitting of vulnerable structures which survived the earthquake but which are not in compliance with current or proposed new building code requirements in the affected zone.</p> <p><b>3. Rehabilitation of Public Infrastructure</b> Recovery and restoration of water and sewerage systems, power systems, and airport and other transport terminals, among others, in the affected area.</p> <p><b>4. Capacity Building for Natural Disaster Management</b> Strengthening of prevention, mitigation and management skills of public sector agencies.</p> <p><b>5. Social Capital Restoration</b> Participatory processes for rebuilding communities.</p> <p><b>6. Project Management</b> Strengthening of project management capacity, including consultant's services in connection with the shelter component.</p>	<p>1. US\$ 150 million.</p> <p>2. US\$ 75 million.</p> <p>3. US\$ 115 million.</p> <p>4. US\$ 7 million</p> <p>5. US\$ 8 million</p> <p>6. US\$ 19.75 million</p> <p><b>Total: US\$ 222.75 million</b></p>	<ul style="list-style-type: none"> <li>• FOREC quarterly progress reports;</li> <li>• Ministry of Housing project reports;</li> <li>• Ministry of Transport and Local Water Authority project reports (component 3);</li> <li>• Disbursement reports (quarterly);</li> <li>• Audit reports (annual)</li> </ul>	<ul style="list-style-type: none"> <li>• Effective coordination among governmental/non-governmental organizations and beneficiaries.</li> <li>• Rigorous qualification process followed for selection of local contractors;</li> <li>• Open and transparent process followed for community reconstruction plan development;</li> <li>• Security situation within the project area remains stable;</li> <li>• Adequate supply of building materials available on local market;</li> </ul>

## Annex 2: Project Description

### COLOMBIA: Earthquake Recovery Project

#### Project Component 1 US\$150 million

*Shelter Assistance.* This component would fund the repair and reconstruction of about 43,480 units partially damaged, about 17,550 totally damaged and about 18,420 units structurally damaged in the affected zone. It would finance subsidies, in the form of grants, to owners of units who meet criteria established by the GOC and agreed to by the Bank. Subsidies would be based on the actual cost of repair or rebuilding subject to a maximum amount of US\$6,000 equivalent per unit, which would provide a minimum housing solution for each eligible family. It would also assist the GOC to provide a subsidy for new house construction to displaced renters who are characterized as vulnerable (i.e., female head of household, the elderly and those in poor health). Other renters in the affected zone will be given special priority in the GOC's ongoing housing subsidy program.

#### Project Component 2 - US\$ 75 million

*Rehabilitation and Retrofitting of Social Infrastructure.* This component would consist of retrofitting of vulnerable structures which survived the earthquake but which are not in compliance with current or proposed new building code in the affected zone. This component would finance the rebuilding and repair of social infrastructure, such as government office buildings, fire departments, prisons and others, as well as social infrastructure, such as schools, health facilities, child care centers, churches, community centers, cultural centers, homes for the elderly, public markets, slaughterhouses and others. It would also finance the consulting services required for the design and supervision of such subprojects.

#### Project Component 3 - US\$ 115 million

*Rehabilitation of Public Infrastructure.* This component would provide funding for rebuilding and repairing damaged water and sewerage, power, and transport systems, as well as environmental protection investments, in the affected area, including consulting services required for the design and supervision of such subprojects.

#### Project Component 4 - US\$ 7 million

*Capacity Building for Natural Disaster Management.* As part of the reconstruction effort associated with a natural disaster, there is also a need to prepare reconstruction plans which emphasize the strengthening of prevention, mitigation and management skills of public sector agencies. Important studies to be undertaken include microzoning, land use mapping, geological and geo-technical research, feasibility studies for debris disposal and the preparation of new building codes. The Government of Italy will support some of these studies through parallel financing. In addition, this component would finance works and the purchase of equipment (seismic and other) associated with disaster prevention and mitigation efforts supported by the project.

#### Project Component 5 - US\$ 8 million

*Social Capital Restoration.* This component will finance the cost of activities aimed at restoring social cohesiveness in affected communities. Such activities may include community hearings and workshops to enhance cultural and community spirit, psychological support to affected families, etc. It would also finance the purchase of equipment required for carrying out such activities, and the design and implementation of training programs as well as studies aimed at strengthening the communities' capacity to re-establish the livelihood of the most vulnerable groups, such as the training of construction craftsmen, for example.

#### Project Component 6 - US\$ 19.75 million

*Project Management.* This component would help finance project management costs incurred by FOREC, such as consulting services and training required to strengthen its project implementation capacity, the purchase of vehicles and equipment, the design and implementation of a communication campaign, and incremental administrative costs under the project, such as the salaries of its technical staff. It would also finance consulting services needed by FOREC or any of the 32 Zone Managers in connection with the implementation of the Shelter Assistance Component, such as those for house damage assessments and supervision.

**Annex 3: Estimated Project Costs**

**COLOMBIA: Earthquake Recovery Project**

<b>Project Cost By Component</b>	<b>Local</b>	<b>Foreign</b>	<b>Total</b>
	<b>US \$ million</b>		
Shelter Assistance	150.00	0.00	150.00
Rehabilitation and Retrofitting of Social Infrastructure	63.75	11.25	75.00
Rehabilitation of Public Infrastructure	103.50	11.50	115.00
Capacity Building for Natural Disaster Management	4.90	2.10	7.00
Social Capital Restoration	8.00	0.00	8.00
Project Management	19.75	0.00	19.75
<b>Total Baseline Cost</b>	<b>349.90</b>	<b>24.85</b>	<b>374.75</b>
Physical Contingencies			
Price Contingencies			
<b>Total Project Costs</b>	<b>349.90</b>	<b>24.85</b>	<b>374.75</b>
Interest during construction			
Front-end fee		2.25	2.25
<b>Total Financing Required</b>	<b>349.90</b>	<b>27.1</b>	<b>377.00</b>

*Note:* Both physical and price contingencies would be calculated for each individual sub-project financed under the project but, because of the project's programmatic approach, are not known in advance and, therefore, not presented above.

<b>Project Cost by Category</b>	<b>Local</b>	<b>Foreign</b>	<b>Total</b>
	<b>US \$ million</b>		
<b>Goods</b>	40.62	5.50	46.11
<b>Works</b>	117.08	15.93	133.00
<b>Services and Training</b>	39.25	3.43	42.68
<b>Housing Grants</b>	150.00	0.00	150.00
<b>Incremental Operational Costs</b>	2.97	0.00	2.97
<b>Total Project Costs</b>	<b>349.90</b>	<b>24.85</b>	<b>374.75</b>
Interest during construction			
Front-end fee		2.25	2.25
<b>Total Financing Required</b>	<b>349.90</b>	<b>27.10</b>	<b>377.00</b>

## **Annex 4: Procurement and Disbursement Arrangements**

### **COLOMBIA: Earthquake Recovery Project**

#### **Procurement**

***Procurement Process Responsibility.*** The project implementation will require procurement of a limited quantity of goods but a significant process of construction and employment of consulting firms and individual consultants to carry out consulting and other technical assistance services. FOREC, the project's executing agency, will be responsible for the overall procurement regulation and supervision activities, including compliance with procedures agreed with the Bank through the Project Operations Manual. FOREC has entrusted the primary responsibility for most of the financed procurement activities under the project to about 32 Non-Governmental Organizations (NGOs) or not-for profit civil society organizations. These NGOs were selected following consultation with the Colombian Confederation of NGOs immediately after the earthquake, and subsequently at the Bank's request, following a public advertisement and prequalification process acceptable to the Bank. FOREC has assigned supervisory responsibilities on procurement to qualified staff with vast experience on IDB operations and now familiar with the Bank's Guidelines and procedures. The publication of a General Procurement Notice in the *United Nations Development Business* is expected to be published in January, 2000.

FOREC will provide the NGOs, known as Zone Managers, with a Procurement Operational Manual prepared by DNP and FOREC, closely reflecting Bank's procedures and outlining all procedural aspects of procurement under the project. In addition, a procurement workshop, involving FOREC staff and all of the participating NGOs, was carried out in October, 1999. The workshop focussed on specific procurement arrangements under the Project.

***Procurement Plans.*** Given the nature of the project, which consists of the housing and reconstruction of a large number of small and scattered public infrastructure damaged by the earthquake and as well as the de-centralized implementation scheme through NGOs, is not possible to develop a detailed procurement plan for the project's goods, works, and consulting services. Notwithstanding the above, FOREC will maintain a procurement plan listing contracts, methods amounts and key dates of contracting and implementation to register the aggregate amounts assigned to the various procurement methods. These aggregate amounts were established on the basis of the experience with the restructuring of four existing lending operations processed immediately after the earthquake packaging with due consideration to applicable bidding procedures and process scheduling; and consultant selection process for the project's consultant services, including possible contract packaging at the district or inter-district level. The procurement plan and consultant selection process plan will be updated periodically, every 6 months. The plans include the (i) list of contracts completed, under execution, under procurement, to be procured in the upcoming calendar semester and, tentatively in the subsequent semester; (ii) costs of completed and under execution contracts, estimated costs for upcoming contracts; (iii) schedule of bidding; and (iv) particular methods of procurement of goods or selection of consultants.

***Methods for Bank Financed Procurement.*** Bank financed goods and works will be procured in accordance with the *Guidelines for Procurement* (published in January 1995, revised in January and August 1996, September 1997 and January 1999) and the provisions stipulated in the Loan Agreement. Bank's Standard Bidding Documents will be used for ICB procedures financed procurement. The Bank's financed consultant services will be procured in accordance with the *Guidelines for Selection and Employment of Consultants by World Bank Borrowers* (published in

January 1997, revised in September 1997 and January 1999 and provisions stipulated in the Loan Agreement. The Bank's Standard Request for Proposals will be used for Bank's financed consultant services. The project procurement arrangements are summarized in Table A.

**Methods for Non Bank Financed Procurement.** Project procurement not financed by the Bank will be carried out in accordance with procedures established in the Operational Manual, but not necessarily the same procedures that apply to Bank-financed procurement which appears in Annex C of the Operational Manual. Procurement arrangements under parallel financing from the IDB would be the responsibility of the Borrower and the co-financiers. The IDB operation will finance the same type of goods, works and services as the Bank in the same geographical areas using procedures (thresholds and methods) very close to those agreed with the Bank. FOREC will decide which loan will finance each sub-project on a one-by-one basis.

**Bank Financed Housing, Works, Goods and Associated Procedures.** The shelter assistance component will consist of payments of direct subsidies to beneficiaries for the repair or reconstruction of damaged houses. There are no procurement methods involved in this component. The beneficiaries will use the proceeds of the subsidy to pay for their own arrangements for the repair and construction of houses. The NGOs will provide technical assistance to the individual beneficiaries. Any procurement of civil works costing more than US\$5.0 million and goods costing more than US\$350,000 would be procured through International Competitive Bidding (ICB). Additionally, contracts for civil works costing US\$5.0 million or less, but more than US\$500,000 will be procured on the basis of National Competitive Bidding (up to an aggregate of US\$60.0 million) or Simplified National Competitive Bidding<sup>2</sup> (up to an aggregate of US\$40.0 million), using procedures acceptable to the Bank. Contracts for civil works costing US\$500,000 or less will be procured on the basis of quotations from at least three qualified local contractors (up to an aggregate of US\$6.0 million). Contracts costing less than US\$50,000 will be procured through direct contracting (up to an aggregate of US\$3.0 million). Contracts for goods costing between US\$200,000 and US\$ 350,000 will be procured through National Competitive Bidding (NCB) up to an aggregate of US\$13.7 million or Simplified National Competitive Bidding up to an aggregate of US\$15 million, in accordance with procedures acceptable to the Bank. Contracts costing less than US\$ 200,000 up to an aggregate of US\$10.0 million will be procured on the basis of quotations from at least three qualified local suppliers. Goods and services required for carrying out activities under the Social Capital Restoration Component, costing less than US\$15,000 equivalent, up to an aggregate amount of US\$4.0 million, may be procured through community participation as set forth in the Operational Manual. Goods of a proprietary nature or spare parts in individual packages costing US\$10,000 or less will be procured through direct contracting up to an aggregate of US\$2.3 million.

**Bank Financed Consulting Services and Associated Procedures.** The proposed project would finance consulting services for: (i) project implementation support and audits; (ii) coordination and monitoring; and (iii) project preparation and (iv) project supervision (or *interventorias*). A few of these services will be carried out directly by FOREC, but the majority will be hired by the

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<sup>2</sup> Simplified NCB is a procurement method commonly used in emergency and recovery projects, consisting of a formal invitation to bid to qualified bidders previously known by the implementing agency as good performers in other projects. The simplified NCB implies the use of standard bidding documents, bid security and evaluation criterion in the bidding documents. Also, bids have to be responsive and adhere to all the requisites and requirements as in NCB; however, there is no public advertisement.

Zone Managers (NGOs).

The project's selection and employment of consultants will be carried out under arrangements acceptable to the Bank. Most of the project's studies, implementation supervision, and financial and procurement audits would be carried out following Quality and Cost-Based Selection (QCBS) procedures. Other consulting services estimated to cost less than US\$100,000, including long-term individual consultants to assist FOREC, would be carried out on the basis of Consultants Qualifications (CQ) method. The hiring of individual consultants, up to an aggregate amount of US\$7.0 million, will be carried out on the basis of their qualifications for the assignment, as per Chapter V of the *Guidelines for Selection and Employment of Consultants by World Bank Borrowers*. Single-source selection of consultants for carrying out activities under the Capacity Building for Natural Disaster Management and Project Management components, up to an aggregate amount of not more than US\$0.5 million would be allowed, in accordance with the provisions of Chapter III of said guidelines.

**Procurement Review.** Bank's procurement review will be in accordance with Appendix 1 of *Guidelines for Procurement* and the provisions stipulated in the Loan Agreement. All International Competitive Bidding (ICB) and QCBS will be subject to prior review. Any direct contracting for civil works and goods beyond the aggregate amounts or the use of other procurement methods under the guidelines but not listed above will require prior review. All contracts with individual consultants costing US\$50,000 or more will be subject to prior review by the Bank, including terms of reference, qualification, experience, and terms of employment. All contracts with consulting firms costing US\$100,000 or more but less than US\$200,000 will be subject to prior review by the Bank of terms of reference, short list of firms, the results of the technical evaluation, and the draft contract. All contracts with firms costing US\$200,000 or more will be subject to prior review by the Bank of all the selection documentation and the draft contract.

In addition to the regular tasks of prior and ex-post reviews, the Bank may also carry out spot checks of the quality and consistency of its financed procurement work, with the objective of strengthening the fiduciary responsibilities. If misprocurement is detected in the ex-post review, FOREC would exclude the subprojects from Bank-financing; however, loan funds would not be cancelled given the programmatic nature of the project.

The implementation of procurement arrangements under the project will be subject to independent procurement audits carried out by FOREC twice yearly using terms of reference and hiring procedures acceptable to the Bank.

**Procurement Records.** Detailed procurement records, reflecting the procurement of goods, works, subsidies and consulting services, including records of time taken to complete key steps in the process and procurement activities related to supervision, review and audits, will be maintained by the NGOs (or Zone Managers) for procurement carried out by them. FOREC will maintain records, summaries and lists of procurement actions authorized under each sub-project in a project information system. Procurement actions to be carried out by FOREC and the inter-institutional agreements will be kept safely by FOREC at headquarters in Armenia. These records will be maintained for at least two years after the project's closing date. The records for goods and works will include public notices, bidding documents and addenda, bid opening information, bid evaluation reports, formal appeals by bidders and outcomes, signed contracts with related addenda and amendments, records on claims and dispute resolution, and any other useful information. The records for consulting services will include public notices for expression of interest, request for proposals and addenda, technical and financial reports, formal appeals by consultants and outcomes, signed contracts, addenda and amendments, records on claims and

dispute resolution and any other useful information.

**Non-Bank Financed Components.** Custom duties and taxes (as provided in the General Conditions, Section 5.08), local dealers' commissions and mark-ups (in accordance with OP 12.00), operating costs, including fuel, operation and maintenance of vehicles, and temporary personal services would not be financed under the Loan.

**Procurement Risk Assessment.** The Country Procurement Review (CPAR) for Colombia is dated April 1997. A key aspect for defining the level of prior review has been the procurement capacity assessment of FOREC and the participation of civil society organizations in project implementation. The methods, thresholds and review levels are also consistent with those applied by the Bank in the reformulation of four existing loans to help the Government in the reconstruction of the disaster-affected region and by the IDB in its parallel co-financing operations. The assessment involved interviews with officials of FOREC and the NGOs. Based on this assessment, and taken into account that the current procurement law (Law 80) stipulates that the procurement policies and procedures of the international financiers apply to projects financed by them, the project's procurement risk rating assessment is average.

Overall Procurement Risk Assessment:

High	<input type="checkbox"/>
Average	<input checked="" type="checkbox"/>
Low	<input type="checkbox"/>

Frequency of procurement supervision missions proposed: one every 6 months, including special procurement supervision for post-review/audits.

**Retroactive financing:** Retroactive financing, in an aggregate amount not to exceed US\$45.0 million, may be made on account of payments made for eligible expenditures incurred within twelve months before the date of loan signing. This aggregate amount represents 20 percent of the loan amount and is within the limits on retroactive financing set in OP 12.10 of January 1995. It is justified given the high speed of project implementation observed under the four Bank loans restructured to respond to the emergency, especially in the case of housing grants under the project's Shelter Assistance Component.

### **Disbursement**

The proceeds of the loan would be disbursed against eligible expenditures according to Table C. Bank funds would be disbursed against Statement of Expenditures: (a) for training, housing grants and incremental administrative costs; and (b) under all contracts that are not subject to prior review by the Bank. All other expenditures will be documented with the withdrawal applications. FOREC will also be able to base their disbursements on Project Management Reports (PMR) once they start producing them. FOREC will be responsible for keeping all accounting documentation. Supporting documents would be kept by FOREC and the Zone Managers for at least one year after the end of the fiscal year in which FOREC would had the last expenditures.

**Audits and Use of Statement of Expenses (SOEs):**

The project will be subject to two types of audits: (i) financial audits of the project account of FOREC; and (ii) technical audits, including procurement audits, to verify that the activities followed the eligibility criteria and were implemented in an efficient manner. Both audits will be conducted every six months by independent auditors acceptable to the Bank, under terms of reference also satisfactory to the Bank. The audit reports will be submitted within two months of the end of the audited period. The audit of project accounts would include separate opinions on, among others, sources and uses of account funds, internal control, special account and statement of expenditures (SOEs).

**Special Account:**

In order to facilitate disbursements, the Borrower would establish a Special Account in a commercial bank satisfactory to the Bank, to be maintained in US dollars, with an authorized allocation in the amount of \$22.25 million. Given the need for a strong positive cash flow to support reconstruction activities, the initial deposit would be for the full amount of the authorized allocation for the Special Account, that is, US\$ 22.25 million. Payments out of the Special Account would be made exclusively for eligible expenditures under the project. When FOREC moves to disburse on the basis of PMRs, the advances into the Special Account would be related to a six month project budget. In such a case, the advance into the special account would not exceed US\$44.5 million. Replenishment of the Special Account would be made on a monthly basis in accordance with withdrawal applications sent by the Borrower. When disbursement is based on PMRs, replenishment would be made quarterly.

**Annex 4, Table A: Project Costs by Procurement Arrangements**

(in US\$ million equivalent)

Expenditure Category	Procurement Method				Total Cost (including Contingencies)
	ICB	NCB	Other	N.B.F	
1. Housing Grants			150.0 <sup>3</sup> (100.0)		150.0 (100.0)
2. Works	24.0 (24.0)	100.0 <sup>4</sup> (38.4)	9.0 <sup>5</sup> (7.6)		133.0 (70.0)
3. Goods	5.1 (5.1)	28.7 <sup>6</sup> (15.8)	12.3 <sup>7</sup> (4.5)		46.1 (25.4)
4. Consultant's services and training			42.7 (25.4)		42.7 (25.4)
5. Incremental Administrative Costs			3.0 <sup>8</sup> (1.9)		3.0 (1.9)
6. Front-end Fee			2.3 (2.3)		2.3 (2.3)
<b>Total</b>	29.1 (29.1)	128.7 (54.2)	219.3 (141.7)		377.0 (225.0)

Figures in parenthesis are the amounts to be financed by the Bank loan

<sup>3</sup> Housing Component; Subsidies; Private Procedures by Private Beneficiaries;

<sup>4</sup> NCB = US\$ 60 million; SNCB = US\$ 40 million

<sup>5</sup> Quotations for Minor Works = US\$ 6 million; Direct Contracting US\$ 3 million

<sup>6</sup> NCB = US\$ 13.7 million; SNCB = US\$ 15 million;

<sup>7</sup> Shopping = US\$ 10 million; Direct Contracting: US\$ 2.3 million

<sup>8</sup> Communication campaigns, salaries and operating costs in accordance to an agreed bi-annual plan

**Annex 4, Table B: Thresholds for Procurement Methods and Prior Review<sup>9</sup>**

<b>Expenditure Category</b>	<b>Contract Value (Threshold)</b>	<b>Procurement Method</b>	<b>Contracts Subject to Prior Review</b>	
	<b>US \$ thousands</b>			
<b>1. Works</b>				
	5,000	ICB	All	24.0
	>5,000	NCB or SNCB	First 3 Contracts	
	<500	Quotations	None	
	<50		All beyond aggregate	
<b>2. Goods</b>				
	350	ICB	All	5.1
	>200	NCB or SNCB	None	
	<200	Shopping	None	
	<10	Direct Contracting	All beyond aggregate	
<b>3. Services</b>				
	>200	Firms QCBS	All	
	>100	Consultants' qualifications	All except for technical evaluation report	
	>50	Individuals CQ	All	
	50 or less	Individuals	All TORs	
		Sole source	All beyond aggregate	
		Subtotal Services		37.7
<b>4. Miscellaneous</b>				
		Bi-annual Plan	All	
<b>Total value of contracts subject to prior review:</b>				<b>66.8</b>

<sup>9</sup> Thresholds generally differ by country and project. Consult OD 11.04 "Review of Procurement Documentation" and contact the Regional Procurement Adviser for guidance.

**Annex 4, Table C: Allocation of Loan Proceeds**

<b>Expenditure Category</b>	<b>Amount in US\$ million</b>	<b>Financing Percentage</b>
Housing Grants	90.00	100% of amounts disbursed
Civil Works	63.00	100% of foreign expenditures and 85% of local expenditures
Goods and Equipment	22.87	100% of foreign expenditures and 85% of local expenditures
Consultants' Services and Training	22.88	100%
Incremental Administrative Costs	1.72	85%
Unallocated	22.28	-
<b>Total Project Costs</b>	222.75	-
<b>Front-end Fee</b>	2.25	100%
<b>Total</b>	225.00	-

## Annex 5: Housing Policy

### COLOMBIA: Earthquake Recovery Project

**Affected Families.** Overall, it is estimated that approximately 60% of the 136,000 shelter units in both urban and rural areas of the affected zones suffered some type of earthquake damage. Approximately 7,000 of these units are in rural areas while about 76,000 are in urban areas. Of those located in urban areas, units with minor damage comprise about 54% of the total (approximately 41,000), with the remaining 46% (approximately 34,000 units) being those with structural or total damage. Tables A, B, and C contain greater details on urban housing sector losses and the income strata of the affected groups.

The region has a relatively large proportion of residents who are renters or owners of multiple units, not all of which are occupied throughout the year. For the urban areas, there are about 18,000 owners who lost their units and about 16,000 renters who lost the units in which they lived. Additionally, soon after the earthquake, a significant but unknown number of persons fled the area (one reason for the large number of unaccounted-for persons in early casualty reports). Many of these people are now returning, but again, definitive figures are not available. It is thus difficult to avoid double counting and get very accurate shelter data in such a situation.

**Losses.** Because of the large number of units, their heterogeneity and the type of damage sustained, it is difficult to accurately quantify the losses suffered for shelter units. A survey by CEPAL shortly after the earthquake puts the total estimated shelter losses (both urban and rural) at about US\$800 million. Some of the families had insurance coverage (either as part of mortgage conditions or on their own account). However, details on the number of claims and loss-payments are not yet available. As noted in Table C, the majority of the population fall in the three lowest income strata. Most of them were uninsured. The characteristics of the units lost or damaged reflect the low income strata of the residents (small living space, poor construction quality, low quality material, poor location, etc.).

**Temporary Shelter.** Currently, there are about 17,000 families in 29 temporary shelters (e.g., stadiums, soccer fields, invaded coffee farms) scattered throughout the affected zone. Additionally, about 5,000 families are on the lots where they lived before the disaster struck while another 15,000 share living facilities with other families whose units were not damaged or who have repaired their units on their own. A common problem in such emergencies is the attempt by non-affected groups to be included in the program designed for victims. While some "leakages" have occurred, it appears that the authorities have enough documentation through censuses on file to minimize its impact. There could nevertheless be some long-lasting negative outcome if the temporary shelter sites or the vacated plots in vulnerable areas are occupied by non-affected families after they are vacated by the affected families. During project implementation, this situation will be monitored to help prevent such occurrences.

**Government Shelter Assistance Program.** The GOC has prepared a shelter-reconstruction program to assist both owners whose units were either damaged or lost as a result of the earthquake, as well as renters who were living in units which were destroyed and are now living in shelters. Additionally, the program provides assistance to help re-locate residents who either lived or are living in vulnerable seismic zones. It also incorporates several features aimed at providing priority assistance to vulnerable families (female-headed, those with young children, handicapped residents, etc.). The following is a description of the shelter reconstruction program for the various affected groups.

Options Offered. Assistance to qualified affected residents is in the form of either direct subsidies or subsidized credits. While there may be some special cases where a qualified beneficiary can receive both types of assistance (e.g., an owner could receive a direct subsidy to rebuild his or her unit and a subsidized commercial credit to rebuild or repair a rental unit), beneficiaries have to make a choice between a direct up-front subsidy or the subsidized credit. There are also provisions and incentives in place to prevent resettlement in vulnerable zones and to assist existing residents of such zones to move to safer sites.

Direct Subsidy. The direct subsidy program provides a one-time subsidy to qualified beneficiaries for use exclusively for the repair, reconstruction or acquisition of a new unit which must, among other things, comply with the updated building code. It covers actual losses incurred, up to a specified level, after taking into account any insurance payment received by the applicant. The subsidy is offered to all owners who suffered losses from the earthquake, irrespective of their income level. However, there are provisions for limiting the assistance offered to such groups as relatively wealthy owners with expensive units or owners of multiple units. An additional point to note in this context is that, as shown in Table C, the majority of residents of the affected zone fall in the lowest three income strata and so the risk of having wealthy residents benefiting disproportionately is rather small.

Subsidized Credit. Under this option, beneficiaries can opt for a credit of up to COP 120 million (approx. US\$60,000), with subsidized interest rate from participating commercial banks. The subsidy is in the form of monthly payments made over the life of the loan, covering any difference between the commercial lending rate charged by the lender and the CPI. There is also a sliding-scale modifier to the CPI, decreasing the interest subsidy offered as the unit price rises to the allowable limit. This option does not appear to be as attractive as the direct subsidy and only about fifty families have so far expressed interest in it. Additionally, from the supply side, only three banks have so far shown interest in making such subsidized loans.

**Owners.** There are several groups of owners, viz. those suffering damages and able to show legal titles and those without such titles. A third group is made up of those who suffered losses but cannot rebuild on their lots because it is in a vulnerable zone, and those who may not have suffered losses but do live in vulnerable zones.

Direct subsidy assistance for these groups is in the form of a grant to cover actual losses suffered up to a maximum of COP 8 million (approx. US\$4,000) per family. If the beneficiary lives or lived in a vulnerable zone, apart from the COP 8 million, there is an additional payment of COP 4 million (US\$2,000) to acquire the lot which has to be vacated, thus assisting the owner to purchase a lot in a less vulnerable site.

**Renters.** Families who lost the units they rented are entitled to subsidy assistance amounting to COP 5.9 million (US\$2,950) toward the acquisition of their own home if they provide proof that they: (a) earn less than four minimum salaries or about US\$480 per month, (b) were renting a unit on January 25, 1999 (the date of the earthquake); (c) were forced to seek alternate shelter because the unit was destroyed and (d) do not own any other shelter unit in the country (owning a plot of land is not a disqualifying factor).

In selecting families for subsidies within this group, there is also a formula which seeks to give priority weights to such factors as (a) whether or not the applicant lives in a temporary shelter (maximum of 20 points); (b) number of children in the family (maximum of 20 points); presence of handicapped residents (maximum of 5 points); (c) type of unit to be acquired (maximum of 20 points for the smallest size); (d) women-headed household (10 points); own savings (maximum of

20 points) and (e) number of times the family was turned down before (5 points for three times or more unsuccessful requests).

**Rural Shelter Reconstruction.** FOREC has designated the Federación Nacional de Cafeteros as the lead entity for rural reconstruction works in the coffee-growing areas. Its program is very advanced at this time, having provided subsidies and credits to approximately 4,500 families for about COP 1.8 billion (approximately US\$1 million). Rural residents with damaged or destroyed units are being assisted under criteria similar to those of the urban areas. FNC uses a blend of FOREC subsidy and a separate credit program for such families. According to the periodic reports of the FNC, it has already passed the midway point in its assistance program. The FOREC assistance program is available for other rural (non coffee growers).

**Financing.** Based upon available data, and assuming that the number of beneficiaries and/or repair costs do not increase substantially, indications are that there will be sufficient funding for all of the owners and renters who will require subsidies under the shelter reconstruction component. The funding sources identified so far include the GOC's earmarked tax levy (an IVA surcharge), municipalities, the Bank, IDB, USAID and the beneficiaries themselves. The Government has decided to use approximately US\$100 million from the proposed loan for the shelter reconstruction component. Bank Project funds would be used only to partially finance the direct subsidy program for owners, the disbursements being made as the subsidies are paid out to the beneficiaries. The GOC has identified the other resources (via FOGAFIN) to finance the subsidized loan component.

For the renter subsidy program, the Government has also already identified the funding sources. These comprise the Caja de Compensación Familiar (CCF), USAID, beneficiaries and NGOs. The CCF will allocate 10% of the resources it manages over the next two years as grants for shelter reconstruction in the affected zone. From this source, it is expected that about US\$20 million would become available. While there are some conditions favoring CCF members above non-members, a survey within the affected area shows that only about three thousand are members of the CCF. The preference program for CCF funds should not therefore crowd out other beneficiaries.

From the USAID, about US\$10 million is being made available for shelter grants to renters and there is also expected to be various in-kind contributions from municipalities, beneficiaries and NGOs. All of these funds will be used in the rental subsidy program as outright grants.

Many of the temporary shelter units have material which are of very good quality and can be used for starter homes once beneficiaries acquire or are assigned a lot. Also, many municipalities have urbanized or semi-urbanized lots which they plan to make available to some beneficiaries. If these two in-kind sources are taken into account, they can help to meet any funding deficit which may arise in the rental shelter assistance program.

**Implementation Arrangements.** FOREC and the NGOs which are responsible for the various zones have in place a well-defined system for identifying, screening and selecting beneficiaries for the direct subsidy and subsidized credit programs for all groups. The finance, administrative, monitoring and follow-up processes are also well-defined, with a good built-in and transparent system of control and accountability. One very commendable feature is the preparation and widespread dissemination of a very comprehensive yet readable publication (with ample illustrations) tracing all key steps for each target group to follow in order to get the appropriate assistance. The operation manual also contains a clear step-by-step presentation covering all phases of the program. Some of the key steps are as follows:

- a) Affected families apply to the Zone Manager's offices in the municipal area where they live. Owners take their ID and proof-of-ownership cards while those without title take their ID and any other documents which could support their ownership claim (cadastre location, tax receipts, service receipts), along with a sworn document from five owners living in the same zone attesting to the fact that the applicant has occupied the property.
- b) If the damaged unit is in an area which is identified as a vulnerable zone, the applicant has to submit a certificate from the authorities verifying that the lot is not one which is to remain unoccupied.
- c) After a legal declaration at the zonal level, data from the document is then entered into a computer where it is analyzed and checked against several data bases (ownership, vulnerable zone, duplication of claims, residency before the earthquake, etc.). Documents clearing this phase are then forwarded to the engineering section.
- d) At the engineering section, technical staff visit the site where they do a detailed loss evaluation. For units totally lost, photos are taken of the lot. For partially-damaged units, apart from two pictures of the front and back, they also prepare an estimate of the physical quantities of inputs needed to effect the repairs. For units already repaired by the owner, they document and verify the extent of work done so that such owners can also be compensated for their losses if they qualify. All reconstruction or repair works must comply with the updated building codes.
- e) The field data is entered into the computer where, using unit costs developed by the insurance sector, a proposed reconstruction or repair budget is prepared. This information is then discussed with the applicant who has the option of agreeing with the assessment or appealing the decision and requesting another evaluation. For those who agree with the analysis, the next decision would be whether to accept a direct subsidy or take a subsidized credit. If the proposed repair or reconstruction cost exceeds the subsidy offered, they can complement this with their own funds or request the design for a more affordable unit.
- f) The zone manager next sends the package to FOREC where another cross-check is made with various data bases to assure that all conditions are being met by the applicant. FOREC's Board reviews the documents after they are screened and approves or rejects the application, providing reasons for any rejection.
- g) Approved applicants who seek subsidized loans are advised to arrange their loans through commercial banks where the necessary interest rate subsidy arrangement would be worked out with FOGAFIN. Those seeking direct subsidies are given letters through the zone managers indicating the amount of subsidy they are entitled to and stipulating the conditions governing use of the subsidies.
- h) The recipient of a direct subsidy has to open an account in a bank where the funds would be deposited. Withdrawals from the account would depend upon the manner in which the repairs or reconstruction works are done. If the zone manager is designated by the beneficiary to do the work then withdrawals are authorized by the zone manager. If the recipient decides to hire his or her own contractor, then the joint withdrawal signatures are those of the recipient and a consultant appointed by the zone manager to supervise the work of the contractor. If the sum involved is less than COP 2.4 million (US\$1,200) the subsidy is paid in one payment; if it is greater, payments are made in two tranches.

- i) For renters, after passing through the verification system, applications are forwarded by the zone managers to the regional Cajas (for both Caja and USAID funds), where they are reviewed and accorded priority according to the criteria described earlier. (USAID and non-Caja funds which are administered by the Caja will not be subject to the member-preference rule of the Caja). If the recipient wishes to buy a unit, he or she can make the arrangements and the Caja will effect the payment of the direct subsidy portion to the seller of the unit or lot. If the recipient wishes to construct a unit, then the zone manager will be asked to supervise the work and authorize payments according to the degree of advance of the work. FOREC estimates that the above funding sources will cover the demand for housing subsidies to renters. In case these are not sufficient, FOREC will use up to 10% from Bank loan proceeds to cover any funding gaps.

While at first glance these procedures may appear long and cumbersome, data gathered so far shows that it is not so. One reason is that there are thirty-two different zone managers with multi-offices in several zones. Additionally, the zone managers have capable staff and computerized systems with easily-accessible data bases for the screening and other analytical work. At various levels, the staff communicate frequently with FOREC staff with both hard copies and electronic files.

#### **Eligibility Criteria for Allocation of Housing Subsidies**

- House must be registered in the official census carried out after the earthquake
- Zone Manager must certify the type of damage and the agreed course of action: (i) repairs; (ii) reconstruction; (iii) relocation
- Zone Manager must verify that the house and lot are not located in an area of high risk
- Zone Manager has estimated the value of the repairs or reconstruction
- Owner or occupier of the house must provide documentation that the repair or reconstruction work will be undertaken by licensed contractors
- Works comply with environmental and seismic regulations
- In the case of relocation, a detailed relocation plan will be submitted prior to receiving the subsidy

<b>Table A: Summary of Losses by Type and Zone</b>							
<b>Non-Rented Housing Units</b>							
		<i>Number of Units with:</i>					Unknown
		Total # of Units	No Damages	Minor Damages	Not Habitable	Totally Damaged	
<b>Caldas</b>		152	4	117	10	20	1
1	Chinchiná	152	4	117	10	20	1
<b>Quindío</b>		43,245	5,988	21,455	7,770	7,825	207
1	Armenia	29,014	4,845	13,547	5,264	5,234	124
2	Buenavista	133	2	78	24	29	-
3	Calarcá	5,857	386	3,276	1,026	1,148	21
4	Circasia	1,070	91	614	162	194	9
5	Córdoba	350	22	136	119	73	-
6	Filandia	436	9	337	27	63	-
7	Génova	83	2	78	1	-	2
8	Le Tebaida	2,441	374	1,037	725	292	13
9	Montenegro	1,454	110	797	194	346	7
10	Pijao	724	50	358	111	188	17
11	Quimbaya	1,441	82	1,021	105	221	12
12	Salento	242	15	176	12	37	2
<b>Risaralda</b>		7,706	374	5,465	502	1,310	55
1	Pereira	6,352	323	4,467	426	1,093	43
2	Dosquebradas	935	34	669	52	170	10
3	Marsella	177	6	142	5	24	-
4	Santa Rosa de Cabal	242	11	187	19	23	2
<b>Tolima</b>		1,090	18	853	59	158	2
1	Cajamarca	1,038	17	808	59	152	2
2	Roncesvalles	52	1	45	-	6	-
<b>Valle del Cauca</b>		3,117	58	2,586	101	362	10
1	Alcalá	329	10	283	20	15	1
2	Argelia	64	-	45	9	10	-
3	Bolívar	66	-	63	1	2	-
4	Caicedonia	1,039	26	802	29	177	5
5	La Victoria	249	1	195	15	37	1
6	Obando	360	4	338	5	13	-
7	Sevilla	741	13	633	19	73	3
8	Ulloa	269	4	227	3	35	-
<b>Total:</b>		55,310	6,442	30,476	8,442	9,675	275

Units with minor damages have broken windows, missing roof covering, missing cladding material.  
 Units not habitable are those with missing roofs and missing (repairable) support structures.  
 Units totally damaged are those which have collapsed or cannot be repaired.

Source: DANE data and Mission Estimates

<b>Table B: Summary of Losses by Type and Zone</b>							
<b>Rented Housing Units</b>							
		<i>Number of Units with:</i>					
		<b>Total # of</b>	<b>No</b>	<b>Minor</b>	<b>Not</b>	<b>Totally</b>	<b>Unknown</b>
		<b>Units</b>	<b>Damages</b>	<b>Damages</b>	<b>Habitable</b>	<b>Damaged</b>	
<b>Caldas</b>		19	2	14	3	-	-
1	Chinchiná	19	2	14	3	-	-
<b>Quindío</b>		27,555	3,331	8,916	7,956	7,240	112
1	Armenia	18,500	2,586	5,562	5,486	4,807	59
2	Buenavista	66	4	27	10	25	-
3	Calarcá	4,153	257	1,491	1,049	1,336	20
4	Circasia	314	30	145	52	84	3
5	Córdoba	179	12	58	62	46	1
6	Filandia	77	5	58	-	14	-
7	Génova	25	3	21	-	1	-
8	Le Tebaida	2,429	243	753	1,012	411	10
9	Montenegro	921	97	394	147	279	4
10	Pijao	482	50	179	104	136	13
11	Quimbaya	374	41	209	31	91	2
12	Salento	35	3	19	3	10	-
<b>Risaralda</b>		2,559	236	1,487	289	521	26
1	Pereira	2,426	213	1,412	278	499	24
2	Dosquebradas	97	17	58	6	14	2
3	Marsella	12	1	9	-	2	-
4	Santa Rosa de Cabal	24	5	8	5	6	-
<b>Tolima</b>		193	3	136	16	38	-
1	Cajamarca	188	2	133	16	37	-
2	Roncesvalles	5	1	3	-	1	-
<b>Valle del Cauca</b>		283	35	182	16	48	2
1	Alcalá	28	2	23	2	1	-
2	Argelia	6	-	4	-	2	-
3	Bolívar	1	1	-	-	-	-
4	Caicedonia	149	14	87	11	35	2
5	La Victoria	1	-	1	-	-	-
6	Obando	27	2	24	1	-	-
7	Sevilla	51	16	28	2	5	-
8	Ulloa	20	-	15	-	5	-
<b>Total:</b>		30,609	3,607	10,735	8,280	7,847	140

Units with minor damages have broken windows, missing roof covering, missing cladding material.  
 Units not habitable are those with missing roofs and missing (repairable) support structures.  
 Units totally damaged are those which have collapsed or cannot be repaired.

Source: DANE data and Mission Estimates

<b>Table C: Percentage of Population Suffering Losses by Income Strata</b>							
		<i>Income Strata:</i>					
		1	2	3	4	5	6
<b>Caldas</b>							
1	Chinchiná						
<b>Quindío</b>							
1	Armenia	10	14	50	22	3	1
2	Buenavista	72	26	2	0	0	0
3	Calarcá	19	44	33	4	0	0
4	Circasia	21	41	37	1	0	0
5	Córdoba	20	80	0	0	0	0
6	Filandia	28	56	16	0	0	0
7	Génova	23	64	12	0	0	0
8	Le Tebaida	16	68	16	0	0	0
9	Montenegro	28	63	9	0	0	0
10	Pijao	25	28	47	0	0	0
11	Quimbaya	50	41	9	0	0	0
12	Salento	7	86	7	0	0	0
<b>Risaralda</b>							
1	Pereira	20	13	25	24	10	8
2	Dosquebradas	20	32	34	7	7	0
3	Marsella						
4	Santa Rosa de Cabal	43	15	36	7	0	0
<b>Tolima</b>							
1	Cajamarca	6	27	67	0	0	0
2	Roncesvalles	19	24	57	0	0	0
<b>Valle del Cauca</b>							
1	Alcalá	42	50	8	0	0	0
2	Argelia	0	73	27	0	0	0
3	Bolívar	25	42	33	0	0	0
4	Caicedonia	5	47	46	2	0	0
5	La Victoria	70	30	1	0	0	0
6	Obando	45	43	12	0	0	0
7	Sevilla	26	43	26	5	0	0
8	Ulloa	25	72	4	0	0	0

## Annex 6: Environmental Issues and Management Plan Summary

### COLOMBIA: Earthquake Recovery Project

**Background.** The Borrower has in place a legal framework and system of environmental laws and regulations. Additionally, under Bank Loan 3973, the GOC is receiving technical assistance aimed at improving the operation of its Ministry of Environment (*MinAmbiente*). Immediately after the earthquake, several environmental experts from the GOC, IDB, Italy and the World Bank visited the affected zone and reviewed the situation.

In line with the findings and recommendations of these experts, the Borrower prepared an Environmental Management Plan (EMP) which, among other things, lists various measures to be taken to reduce adverse health and environmental impacts of reconstruction activities and identifies additional studies and activities to be undertaken during project implementation. A special committee comprising representatives from local and national environmental agencies, including a representative from FOREC, has been established to oversee the implementation of the EMP. FOREC's environmental specialist will work in close collaboration with the affected communities, through NGOs assigned to each district, and with the environmental agencies and consultants to address project environmental issues and to initiate and contribute to other specific project-related activities.

**Environmental Impacts and Risks.** The Borrower and the Bank have identified the following environmental issues: (a) building demolition, debris removal and appropriate disposal; (b) sustainable harvesting of bamboo (used in housing construction); (c) public safety, land, materials, air quality and noise levels are properly managed during construction; and (d) prevention of resettlement in hazardous and vulnerable zones in the project area. The latter is complemented by a monetary compensation (established by Presidential Decree No. 196 of January 30, 1999) offered to owners of plots in such vulnerable areas, as an incentive for them to settle in safer zones.

During the rescue phase, there was urgent need to gain access to the victims and so debris was dumped in several temporary holding sites. Feasibility studies have been prepared which identify permanent disposal sites for debris and, where appropriate, recommendations on recycling.

As for the harvesting of bamboo (*guadua*), the GOC is working with various NGOs and community groups to help promote substitution of other acceptable building material where possible. At the same time, the Regional Corporations (CRQ and CARDER) who have legal authority over the management of natural resources will monitor the cutting of bamboo and will take steps to ensure that there is no overharvesting. Overexploitation of bamboo could result in an increased risk of flooding, landslides and soil erosion especially along hills and mountainsides.

To prevent resettlement in areas of high seismic risk, the GOC has identified several zones where housing or other similar use would be prohibited. With the assistance of the Government of Italy, there are studies underway to map out additional vulnerable zones in the coffee-growing region.

**The Legal Framework Post-earthquake Environmental Management.** Among the most important existing laws which in part address environmental problems associated with natural disasters are: (i) *Law 9 1989, Relocation of Settlements in High Risk Zones*; (ii) *Decree 919 1989, Institutional Responsibilities for Disaster Management*; and (iii) *Decree 93 1998, National Plan for Prevention and Attention to Disasters*. In addition, the GOC has in place laws that

mandate the preparation of municipal land use plans (*ordenamiento territorial*) which will highlight areas of high risk to natural disasters. Since the earthquake, various levels of government have prepared and approved laws and decrees to supplement and reinforce the existing legal framework. The most important of these are: (i) *Decree 350 1999, Suspension of Environmental Prerequisites in the Eje Cafetero*; (ii) *Decrees 195 and 223 1999, Requirements for the Use of Natural Resources during the Reconstruction*; and (iii) *Decree 0072 1999, Declaration of High Risk Areas in Armenia*.

In addition to the formal legal mechanisms, key institutions in the reconstruction effort have signed cooperation agreements that provide technical support to projects whose primary objective is to mitigate environmental problems. Some of the most important of these are: (i) FOREC-INGEOMINAS (July 26, 1999) "Zoning of Areas of High Seismic Risk"; (ii) CRQ/ Municipality of Armenia (October 1999), "Bamboo Reforestation in High Risk Areas". The INGEOMINAS work will include the preparation of maps with recommendations on land use for 28 municipalities. The results of these studies will be included in the municipal land use plans that are under preparation.

**Progress on Environmental Management since the Disaster.** At project appraisal, the GOC and environmental specialists from CRQ estimated that about 50% of the building debris had been removed. The estimate for Armenia is somewhat higher at about 70%. Most of the debris has been placed in temporary disposal locations, which are not considered technically suitable for final disposal. In some cases, these locations present a considerable public health and safety risk. The GOC with support from the IDB has contracted an Italian consulting firm to prepare a feasibility study for debris disposal (including recycling) in the 28 municipalities affected by the earthquake "Informe Preliminar. Manejo Integral de Escombros y Residuos de Construcción" (August 1999). The EMP takes the results of this study into account and suggests a management process for ensuring that over the long term the debris is disposed of in an environmentally safe manner.

Bamboo (*guadua*) is an important resource for the reconstruction of the coffee-growing region. Over the last few months, the demand for bamboo has increased and is for the most part being met by the available supply produced in the region. At the same time, exports of bamboo to other regions of Colombia have declined dramatically due in part to the needs resulting from the earthquake but also to reduced demand from the building industry associated with the economic recession. Over the longer term, there is considerable concern about overexploitation of bamboo as the reconstruction effort intensifies and demand increases from other regions of the country. In an effort to address the potential for overexploitation the Regional Corporation of Quindio (CRQ) has prepared a project that provides a framework for increased cultivation of bamboo. The National Center for the Study of Bamboo will play a major role in assisting communities with the development of bamboo reforestation programs along with the establishment of bamboo plantations. CRQ has also signed a series of agreements with a number of municipalities which permits the establishment of commercial bamboo plantations. CRQ will provide technical assistance along with bamboo seedlings while the municipality will provide land and labor.

Resettlement in Areas of High Seismic Risk. Most of the urban areas in the coffee-growing region have human settlements that occupy areas identified as highly susceptible to seismic events. Many of these areas are also considered high risk for flooding and mud slides. The most numerous of these areas are along hillsides and in natural drainage areas. This situation is particularly acute in Armenia where thousands of families occupy high risk areas. Following the earthquake, Armenia's mayor has signed a legal decree (No. 0072 1999) declaring these areas as high risk.

The GOC has recognized the importance of ensuring that new human settlements during the reconstruction effort avoid areas of high seismic risk. INGEOMINAS with support from FOREC is preparing a study will identify areas of high seismic risk for 25 municipalities that were impacted by the earthquake. The results of these studies will be included in each municipalities Land Use Plan (POT) and serve as a policy tool for preventing future settlements in these areas. Other studies will be undertaken which will assist municipalities in incorporating environmental considerations into urban zoning.

Public Safety in Construction Areas. The GOC has also prepared environmental guidelines for activities that will be supported during reconstruction. These guidelines will serve as both a checklist of actions to ensure public safety and as a management tool for: (i) demolition of damaged buildings; (ii) control of erosion; (iii) transportation of materials; (iv) management of liquid and solid waste, including hazardous materials; and (v) management of construction activities to minimize air and noise pollution. Additional measures related to public safety are proposed in the project's Environmental Management Plan.

Socio-economic Characteristics. While the earthquake impacted both urban and rural communities, the urban centers of Armenia and Peirera incurred the greatest degree of damage. Within the urban areas sector, low-income residents living in older rental structures and in hillside settlements adjacent to natural drainage areas suffered considerable economic and personal property losses. Public space is poorly developed and in some areas non-existent. Some of these areas are also adjacent to temporary sites for disposal of construction debris.

Since the earthquake, GOC ministries, independent agencies and institutes along with NGOs have worked to obtain and develop accurate data bases on populations affected by the disaster. This information served as an important input into the Environmental Management Plan. Specifically, communities that are most likely to be negatively affected by reconstruction activities have been identified. Zone management teams working in these communities will be provided with the EMP along with specific Sector Environmental Guides (SEG) which provide clear design methods and actions to mitigate environmental impacts associated with reconstruction activities.

**The Environmental Management Plan.** The first draft of the project's Environmental Management Plan (EMP) was reviewed by the Bank project preparation mission and discussed with the LCSES Environmental Specialist and the Quality Control Group. A revised EMP was presented to the Bank Appraisal mission. That mission provided detailed comments on the EMP. A revised EMP was submitted to the Bank shortly after the completion of the mission. The following sections summarize the project's EMP.

Objectives. The EMP has the following objectives:

- (i) Mitigate the environmental impacts resulting from the earthquake of January 25, 1999;
- (ii) Implement actions to ensure that environmental considerations are incorporated into the region's reconstruction program along with the overall reactivation of the region's economy;
- (iii) Ensure that natural resources are available for the reconstruction and that they are managed in a sustainable way;
- (iv) Provide the region with the technical, organizational and natural resources necessary to rebuild in a sustainable way and ensure that appropriate measures are taken to reduce risks to human life related to possible future natural disasters.

Institutional Responsibilities. Following the earthquake the GOC, an "Environmental Coordinating Committee" (ECC) was established comprising the Vice-Minister of Environment (MinAmbiente), the Directors of the Regional Development Corporations of Quindia and Risaralda (CARs), and the Environmental Specialist of FOREC. The ECC has an established set of operating rules and will be responsible for overseeing the implementation of the EMP.

The primary functions of the ECC are to: (i) coordinate the implementation of project activities identified in the EMP; (ii) review reports submitted by other public agencies involved in reconstruction activities; (iii) evaluate and prioritize environmental investments; (iv) assure that the EMP and the Zone Action Plans are implemented in a complementary way. In addition to the ECC, a Regional Environmental Management team will be established in CRQ to prepare projects, budgets and legal contracts. They will also be responsible for ensuring that environmental investment projects are coordinated with the overall reconstruction effort. They will deliver progress reports on a trimester basis to the ECC.

Strategic Focus. In addition to targeting the most important environmental problems associated with the earthquake, the EMP will serve as an important planning tool for the reconstruction effort. The CARs will play a key role in this regard through the provision of technical assistance to municipalities and zone managers in urban environmental management, land use planning, and transfer of clean/sustainable technologies (Decree 350 1999). Technical support will also include efforts to stimulate organizational processes, public participation, and the renewal of community and regional identity. Environmental education will be the primary vehicle and approach for delivering this technical support.

Process. The process for EMP implementation will require participation by national, regional and local government entities, NGOs and community organizations, and the private sector. Screening of infrastructure investments in the housing, transport, health and education sectors will be undertaken by the CAR. Each CAR will review investments based on their compliance with Sector Environmental Guides (SEG) which have been prepared under the direction of the Ministry of Environment. These guides have been included as Annexes to the EMP and will be made available to each zone management team in the 31 Management Zones. SEGs have been prepared for: (i) housing/building construction; (ii) materials transport/roads; (iii) civil works; (iv) water supply and sewer systems; (v) solid and liquid waste management; and (vi) natural resources use and exploitation. In addition, social action plans have been prepared which establish a process to ensure community participation in the reconstruction effort. Community overseer groups will be established in each zone and be responsible for ensuring compliance with the EMP.

Monitoring and Evaluation. The implementation of the EMP will not be monitored and evaluated as a separate set of activities but will be included as part of the overall project monitoring and evaluation exercise which has been described in Annex 1. Several indicators will be in place to monitor compliance and make any required adjustments.

Proposed Environmental Investment. A key element in the EMP is the development of well targeted environmental investments to be financed under the project.

**Annex 6, Table A: Proposed Environmental Investments**

<b>Investment Project</b>	<b>Total Cost (thousands of US dollars)</b>	<b>Responsible Institutions</b>
Municipal government strengthening for environmental management, land use planning, and disaster prevention	432,500	CRQ, CARDER, CVC, CORTOLIMA, CORPOCALDAS
Planning and development of ecotourism-Los Nevados National Park	350,000	CRQ, CARDER, National Parks Administration
Technical Assistance for Sectoral Env. Management:	250,000	Ministry of Environment, CARS, NGO's
Integrated management of debris generated by the earthquake.	2,205,500	Municipalities, Zone Management, NGOs
Technical Assistance to the Environmental Mining Plan for the use of construction materials	170,000	Universities, NGOs, other public organizations
Development of sustainable management systems for bamboo	2,375,000	CARs, NGOs, The Bamboo Research Center, community organizations
Stabilization and recuperation of degraded hillsides	4,860,000	CARs, Zone Management Teams, municipalities, NGOs
Mitigation of seismic risk in the urban centers		INGEOMINAS, CARS, universities
Integrated management of urban watersheds and improved protection of drainage areas	1,500,000	CARs, Zone Management Teams, NGOs
Strategic environmental investments	602,000	CARs, municipalities
Environmental auditing of Reconstruction Plan implementation	100,000	FOREC, Ministry of Environment
Strengthening and institutional support for the Regional Development Corporations in the departments of Quindio and Risaralda	150,000	FOREC, Ministry of Environment, CARs
<b>Total</b>	<b>14,000,000</b>	

**Annex 7: Project Processing Schedule  
COLOMBIA: Earthquake Recovery Project**

<b>Project Schedule</b>	<b>Planned</b>	<b>Actual</b>
<b>Time taken to prepare the project (months)</b>	9 months	9 months
<b>First Bank mission (identification)</b>	2/1/1999	2/1/1999
<b>Appraisal mission departure</b>	10/11/1999	10/10/1999
<b>Negotiations</b>	02/14/2000	02/14/2000
<b>Planned Date of Effectiveness</b>	04/17/2000	--

**Prepared by:**

*Fondo para la Reconstrucción y Desarrollo Social del Eje Cafetero (FOREC)*  
National Planning Department (DNP)

**Preparation assistance:**

Italian Consultant Trust Fund	US\$493,000
Canadian Consultant Trust Fund	US\$42,000

**Core Project Preparation Team:**

<b>Name</b>	<b>Bank Unit</b>	<b>Borrower Agency</b>	<b>Role/Responsibility</b>
Eleoterio Codato	LCSFP		Team Leader
Connie Luff	LCC4C		Team Leader
Issam Abousleiman	LOAEL		Disbursement Officer
Jairo Arboleda	LCCCO		NGO Spec/ Social assessment
José Augusto Carvalho	LEGLA		Legal Counsel
Gary Costello	LCSFP		Consultant/ Environment
Mauricio Cuellar	LCCCO		Projects Officer/Procurement
Natalia Gómez	LCCCO		Projects Officer
Efraim Jimenez	LCOPR		Procurement
Alexandra Ortiz	LCSFP		Urban Economist
Thakoor Persaud	LCSFP		Economist/Housing
Livio Pino	LCOAA		Financial Management
Juan David Quintero	LCSES		Environmental Specialist
Juan Pablo Ruiz	LCCCO		Consultant/ Environment
Antonio Trivizo	LCSFP		Team Assistant
Alcira Kreimer	TWURD		Peer Reviewer
Eugene McCarthy	LCSFP		Peer Reviewer
Luis Carlos Villegas		FOREC	President
Everardo Murillo		FOREC	Executive Director
Teresa Lozano		FOREC/DNP	Advisor
David Bersh		FOREC	Health Specialist
Lucia Gonzalez		FOREC	NGO Specialist
Jorge Ramirez		FOREC	Rural Development Spec.
Silvia Ramirez		FOREC	Housing Specialist
Eduardo Uribe		FOREC	Environment Specialist
Manuel Salazar		DNP	Chief, UPRU
Diego Fernandez		DNP	Advisor, UPRU

## **Annex 8: Documents in the Project File\***

### **COLOMBIA: Earthquake Reconstruction Project**

#### **A. Project Implementation Plan**

- *Reglamento Operativo para la Reconstrucción del Eje Cafetero* (FOREC's Project Operational Manual); FOREC, November 8, 1999.
- *Modelo de Contrato para el Desarrollo de Servicios de Administración Zonal* (Model Agreement for the Implementation of Zone Management Services)
- *Plan de Acción Ambiental para la Recuperación y el Desarrollo Sostenible de la Región del Eje Cafetero* (Environmental Management Plan); FOREC, April 25, 1999.

The above documents can also be found at <http://www.forec.gov.co/>

#### **B. Bank Staff Assessments**

- Bank BTO's and Aide-Memoires (\*)
- Proposed Amendment to the Loan Agreements (for Loans 3615, 3683, 3871 and 3973)

#### **C. Other**

- Minutes of PCD (Loan Amendment) Meeting
- *El Terremoto de Enero de 1999 en Colombia: impacto socioeconómico del desastre en la zona del Eje Cafetero* (Socioeconomic Impact of the Disaster in the Eje Cafetero); UNDP/CEPAL, April 27, 1999.  
Legal Agreements, National Resolutions and Decrees (<http://www.forec.gov.co/>)

\*Including electronic files.

**Annex 9: Statement of Loans and Credits**

**COLOMBIA: Earthquake Reconstruction Project**

Project ID	FY	Borrower	Purpose	<u>Original Amount in US\$ Millions</u>				Difference between expected and actual disbursements	
				IBRD	IDA	Cancel.	Undisb.	Orig	Frm Rev'd
CO-PE-39082	1999	INVIAS	TOLL ROAD CONCESSION	137.10	0.00	0.00	100.00	40.00	0.00
CO-PE-50576	1999	GOVERNMENT	YOUTH DEVELOPMENT	5.00	0.00	0.00	4.79	0.79	0.00
CO-PE-46031	1998	GOVERNMENT	MAGDALENA MEDIO	5.00	0.00	0.00	3.38	0.13	0.00
CO-PE-46112	1998	GOVERNMENT OF COLOMBIA	PASTO EDUCATION	7.20	0.00	0.00	5.89	1.19	0.00
CO-PE-53243	1998	MINHACIENDA	PEASANT ENTERPRISE Z	5.00	0.00	0.00	4.59	0.29	0.00
CO-PE-6861	1998	FINDETER	URBAN INFRASTRUCTURE	75.00	0.00	0.00	70.32	0.32	0.00
CO-PE-6891	1998	GOV OF COLOMBIA	ANTIOQUIA EDUCATION	40.00	0.00	0.00	38.74	3.64	0.00
CO-PE-40102	1997	GOVT OF COLOMBIA	REG.REF.TA	12.50	0.00	0.00	11.69	4.70	0.00
CO-PE-6884	1997	GOVERNMENT OF COLOMBIA	FIN MRKTS DEV TA	15.00	0.00	0.00	13.37	6.87	0.00
CO-PE-39291	1996	GOVERNMENT OF COLOMBIA	URBAN ENVIRONMENT TA	20.00	0.00	0.00	12.99	10.97	0.00
CO-PE-6872	1996	BOGOTA DISTRICT GOVERNMENT	URBAN TRANSPRT	65.00	0.00	0.00	42.93	26.95	4.75
CO-PE-6887	1996	GOVT OF COLOMBIA	POWER MARKET DEVELOP	249.30	0.00	0.00	67.26	29.18	16.52
CO-PE-6894	1996	GOVERNMENT	SANTAFE I (WTR/SUPPL	145.00	0.00	0.00	89.87	66.20	0.00
CO-PE-6880	1995	GOVERNMENT OF CLM	AGRICULTURE TECHNOLO	51.00	0.00	0.00	37.30	21.00	0.00
CO-PE-6893	1995	GOVERNMENT OF COLOMBIA	ENERGY TA	11.00	0.00	0.00	3.55	3.55	0.00
CO-PE-6866	1994	GOV. OF COLOMBIA	SECONDARY EDUC	90.00	0.00	0.00	54.99	43.26	11.52
CO-PE-6868	1994	GOV OF COLOMBIA	NATURAL RESOURCE MAN	39.00	0.00	0.00	17.81	10.82	10.37
CO-PE-6889	1994	GOVERMT OF COLOMBIA	PUBLIC FINANCIAL MAN	30.00	0.00	0.00	4.60	4.60	0.00
CO-PE-6854	1993	GOV OF COLOMBIA IA	MUNICIPAL HEALTH SER	50.00	0.00	0.00	30.30	27.29	19.29
Total:				1,052.10	0.00	0.00	614.37	301.75	62.45

**COLOMBIA**  
**STATEMENT OF IFC's**  
**Held and Disbursed Portfolio**  
**31-Jul-1999**  
**In Millions US Dollars**

FY Approval	Company	Committed IFC				Disbursed IFC			
		Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1963/90	Coltejer	6.32	0.00	0.00	0.00	6.32	0.00	0.00	0.00
1969/85/88/93/95	CF del Valle	0.00	0.00	7.43	0.00	0.00	0.00	7.43	0.00
1977/89/92/94/96	Promigas	12.21	0.00	1.13	33.83	12.21	0.00	1.13	33.83
1981/85/87/89/91/92/94	Leasing Bolivar	4.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
1987	PRODESAL	0.00	0.00	0.59	0.00	0.00	0.00	0.59	0.00
1990/92	ODC	2.89	0.00	0.00	6.77	2.89	0.00	0.00	6.77
1994/95	Corfinansa	0.00	0.00	1.43	0.00	0.00	0.00	1.43	0.00
1995	Corfinsura	13.06	0.00	0.00	0.00	13.06	0.00	0.00	0.00
1995/97	Icollantas	11.00	0.00	0.00	0.00	11.00	0.00	0.00	0.00
1996	Proyectos	9.64	0.00	5.00	0.00	4.17	0.00	5.00	0.00
1997	Suleasing	30.00	0.00	0.00	0.00	7.43	0.00	0.00	0.00
	Total Portfolio:	89.12	0.00	15.58	40.60	61.08	0.00	15.58	40.60

FY Approval	Company	Approvals Pending Commitment			
		Loan	Equity	Quasi	Partic
	Total Pending Commitment:	0.00	0.00	0.00	0.00

**Annex 10: Country at a Glance**

**COLOMBIA: Earthquake Reconstruction Project**

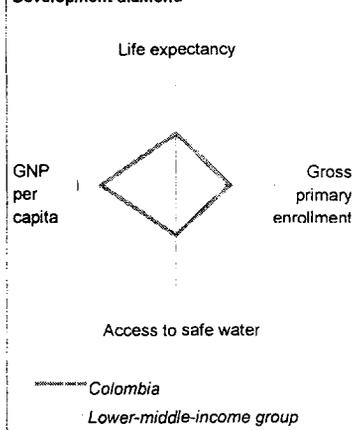
# Colombia at a glance

9/8/99

## POVERTY and SOCIAL

	Colombia	Latin America & Carib.	Lower-middle-income
<b>1998</b>			
Population, mid-year (millions)	40.8	502	908
GNP per capita (Atlas method, US\$)	2,600	3,940	1,710
GNP (Atlas method, US\$ billions)	106.1	1,978	1,557
<b>Average annual growth, 1992-98</b>			
Population (%)	1.9	1.6	1.1
Labor force (%)	2.7	2.3	1.5
<b>Most recent estimate (latest year available, 1992-98)</b>			
Poverty (% of population below national poverty line)	18	..	..
Urban population (% of total population)	74	75	58
Life expectancy at birth (years)	70	70	68
Infant mortality (per 1,000 live births)	24	32	38
Child malnutrition (% of children under 5)	8	8	..
Access to safe water (% of population)	75	75	75
Illiteracy (% of population age 15+)	9	13	14
Gross primary enrollment (% of school-age population)	113	113	103
Male	113	..	105
Female	112	..	100

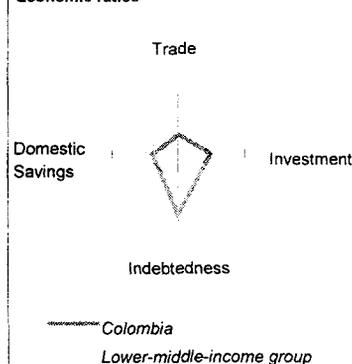
Development diamond\*



## KEY ECONOMIC RATIOS and LONG-TERM TRENDS

	1977	1987	1997	1998	
GDP (US\$ billions)	19.5	36.4	108.6	102.9	
Gross domestic investment/GDP	18.7	19.1	23.0	22.3	
Exports of goods and services/GDP	16.9	17.0	13.9	13.9	
Gross domestic savings/GDP	22.3	23.1	18.0	16.6	
Gross national savings/GDP	21.1	21.2	17.6	16.5	
Current account balance/GDP	1.9	-0.1	-5.4	-5.7	
Interest payments/GDP	0.8	3.7	1.5	1.7	
Total debt/GDP	26.0	46.8	31.2	35.1	
Total debt service/exports	10.7	39.1	46.7	47.3	
Present value of debt/GDP	..	..	27.9	..	
Present value of debt/exports	..	..	198.4	..	
<b>(average annual growth)</b>					
	1977-87	1988-98	1997	1998	1999-03
GDP	3.4	4.0	3.1	0.6	3.6
GNP per capita	0.7	2.6	1.1	-1.3	1.7
Exports of goods and services	5.0	7.1	8.1	-4.8	8.3

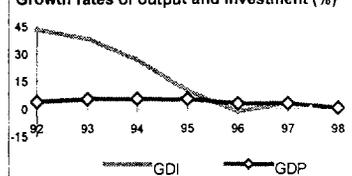
Economic ratios\*



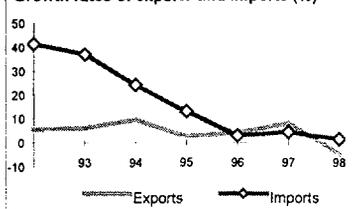
## STRUCTURE of the ECONOMY

	1977	1987	1997	1998
<b>(% of GDP)</b>				
Agriculture	25.0	17.4	14.1	14.5
Industry	30.3	34.8	29.0	27.1
Manufacturing	23.9	20.3	14.2	13.8
Services	44.7	47.8	57.0	58.4
Private consumption	70.0	68.2	65.8	67.2
General government consumption	7.7	8.7	16.2	16.3
Imports of goods and services	13.3	12.9	19.4	19.6
<b>(average annual growth)</b>				
	1977-87	1988-98	1997	1998
Agriculture	2.5	1.7	0.2	0.6
Industry	4.1	2.3	1.3	-2.3
Manufacturing	2.5	1.7	2.5	0.0
Services	3.4	5.7	3.6	2.4
Private consumption	2.9	4.0	3.7	1.9
General government consumption	5.1	5.3	4.7	0.3
Gross domestic investment	2.3	14.0	3.5	..
Imports of goods and services	2.5	16.0	4.4	1.5
Gross national product	2.9	3.9	3.1	-2.5

Growth rates of output and investment (%)



Growth rates of exports and imports (%)



Note: 1998 data are preliminary estimates.

\* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

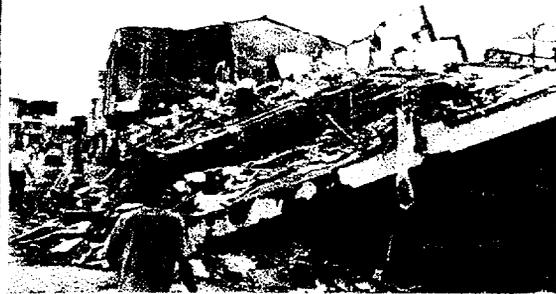
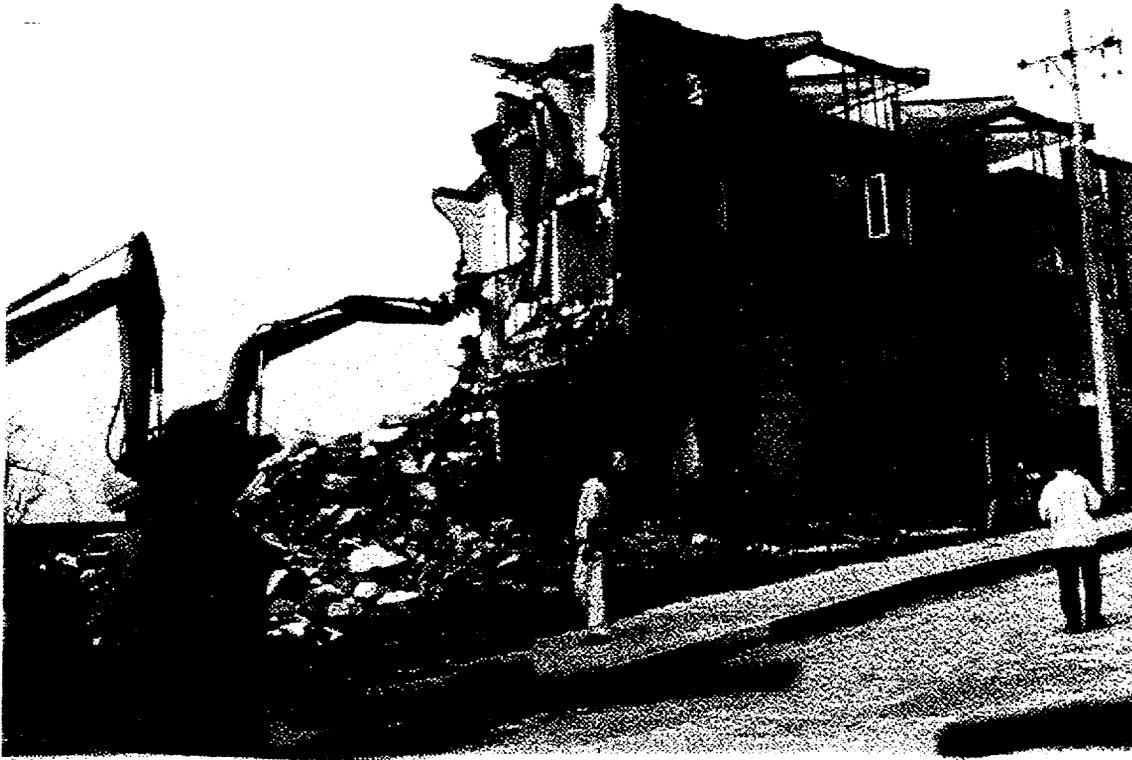


**COLOMBIA: Earthquake Reconstruction Project**

**Photographs**



# IMAGES OF THE DESTRUCTION

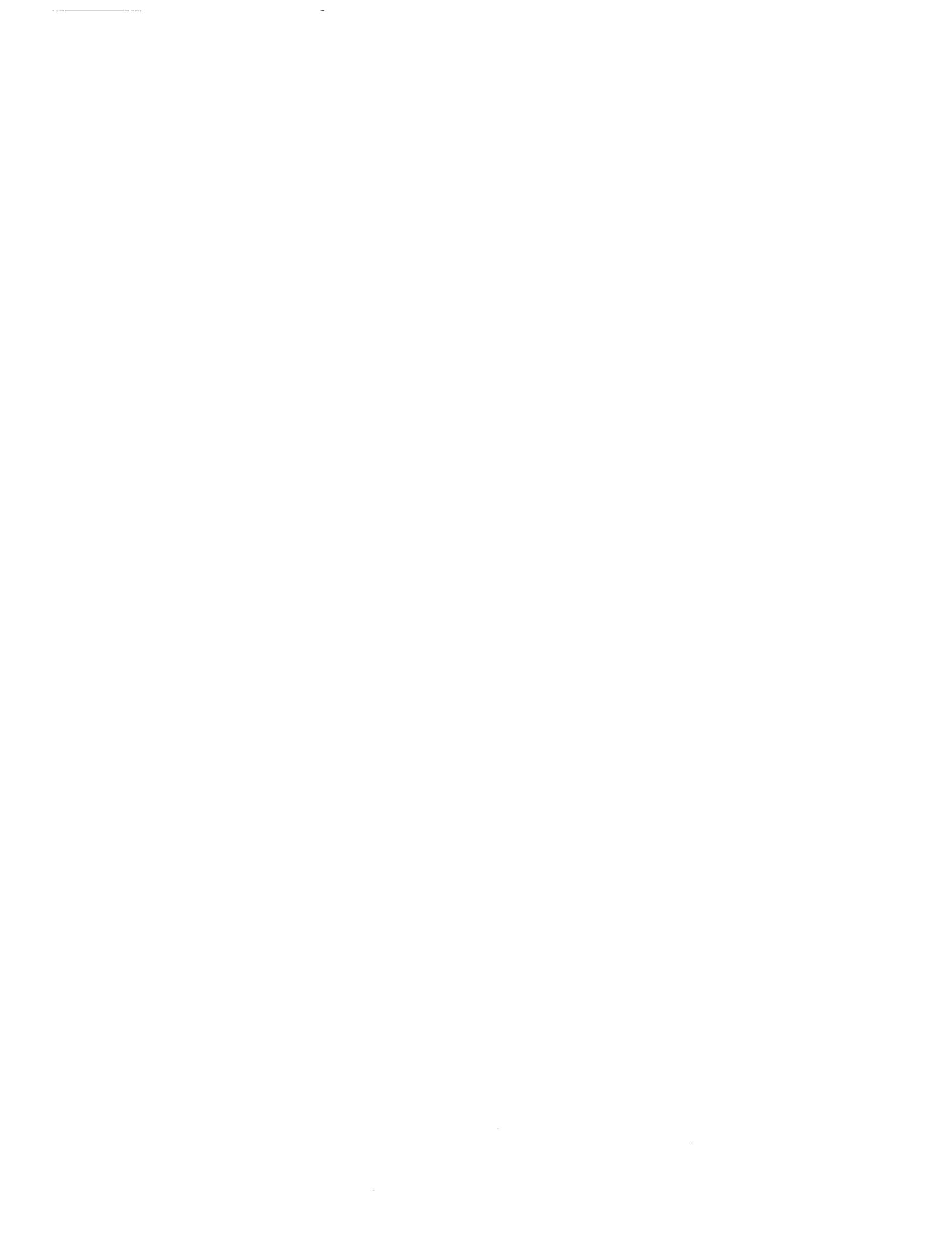


# DIGGING OUT

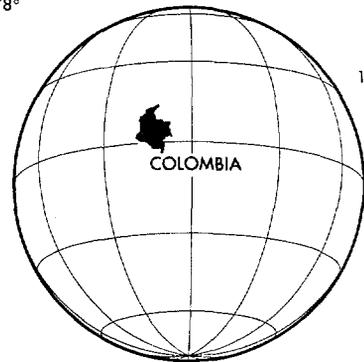


# REBUILDING COMMUNITIES

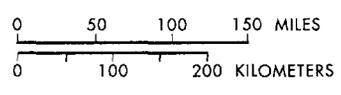




# COLOMBIA EARTHQUAKE RECOVERY PROJECT



- EARTHQUAKE EPICENTER LOCATION
- MUNICIPALITIES MOST AFFECTED
- DEPARTMENT CAPITALS
- NATIONAL CAPITAL
- RIVERS
- DEPARTMENT BOUNDARIES
- INTERNATIONAL BOUNDARIES



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