

# EMERGENCY PROGRAM IN RESPONSE TO NATURAL DISASTERS

(GU-0137)

## EXECUTIVE SUMMARY

**BORROWER AND GUARANTOR:** Republic of Guatemala

**EXECUTING AGENCY:** Ministry of Communications, Transport, Public Works and Housing

**AMOUNT AND SOURCE:**

IDB: (OC)	US\$40,000,000
Local counterpart funding:	<u>US\$ 4,470,000</u>
Total:	US\$44,470,000

**FINANCIAL TERMS AND CONDITIONS:**

Amortization period:	30 years
Grace period:	3 years
Disbursement period:	3 years
Commitment period:	2 years
Interest rate:	variable
Inspection and supervision:	1%
Credit fee:	0,75%
Currency:	U.S. dollars, from the Single Currency Facility

**OBJECTIVES:** The program objective is to prevent, avoid and reduce the effects that, as a result of the natural disasters that hit Guatemala in the last six months, cause loss of life and property damage, worsen the living conditions of the population affected, and damage the environment and economic infrastructure. The main problems encountered this year have been floods attributed to the El Niño phenomenon, which have caused landslides, avalanches, high water in the rivers, and mudflows. Hurricane Mitch caused severe damage. We are including US\$15 million for this purpose in the operation.

**DESCRIPTION:** **Component 1: Disaster damage prevention:**

The government has been implementing preventive measures in all areas for the past three years, stepping up its efforts since August 1998, with the official declaration of an emergency. Some of the specific projects to be carried out as part of the program, as listed in Table 1, involve the following activities: (i) in the south: drainage works in farming and urban areas, cleanup, canalization, and riverbank protection to prevent flooding, the

cleaning and rehabilitation of drainage ditches and sewerage systems, road improvements, the repair and rebuilding of bridges, and the protection of schools, historic monuments and archaeological sites; (ii) in the north: watershed management, the repairing of access roads, the rebuilding of bridges and school repairs.

**Component 2: Mitigation of the impact of the emergency and reconstruction phase:**

This component includes the temporary rehabilitation and permanent rebuilding of physical infrastructure and basic services damaged by natural disasters in the transportation, sanitation and other sectors to be decided on by the borrower and the Bank. Table 1 lists some of the projects identified for financing under this component.

**ROLE OF THE PROJECT IN THE BANK'S COUNTRY AND SECTOR STRATEGY:**

Priorities under the Bank's country strategy for Guatemala include: (i) incorporating the poor, indigenous, rural population into the development process; (ii) expanding and upgrading social services; (iii) modernizing the State; and (iv) furthering the development and growth of productive sectors.

Moreover, in cases of natural disasters with unusually severe aftermaths, the Bank helps member countries cope with the unforeseen effects of such disasters and their socioeconomic and environmental repercussions.

**ENVIRONMENTAL AND SOCIAL REVIEW:**

An independent environmental consultant will be hired to implement the program's environmental management system, which is to be comparable to that of other similar Bank projects. The terms of reference for the consultant will be included in the program's operating regulations.

**BENEFITS:**

**Economic impact.** The program should help reduce economic losses engendered by natural disasters by keeping access roads open to traffic and executing other infrastructure projects, such as the repair and rebuilding of housing and channels, watershed management, etc. Plans include drainage along over 50 km of rivers, dredging of over 275,000 m<sup>3</sup> of rivers, channels, and creeks, and rehabilitation of some 6,500 dwellings.

**Social impact.** The program should also help reduce loss of human life and increase the capacity of the

population to cope with natural disasters. An estimated 400,000 people will benefit directly from the program.

**Long-term positive impact on socioeconomic development.** The preventive measures being taken by the government are such that their effects go beyond the emergency per se and contribute to sustained socioeconomic development in the areas in which these works are being carried out. The program will make use of labor-intensive methods and will promote the reintegration of areas impoverished by the armed conflict and affected by natural disasters. Reconstruction work will have built-in community participation mechanisms. Some 650,000 people will benefit throughout the country.

**Environmental impact.** Proposed program activities are designed to mitigate the adverse effects of natural phenomena and, as such, are expected to have a positive impact on the environment.

**RISKS:**

The main risk is that the different agencies and organizations conducting various activities during the emergency phase will fail to properly coordinate their efforts, particularly during the program's startup phase. This risk is minimized by the existence of the Coordinadora Nacional para la Reducción de Desastres (CONRED) [Disaster Mitigation Coordination Committee] and of an interagency coordination and implementation agreement signed by the ministries involved in the program.

**SPECIAL  
CONTRACTUAL  
CONDITIONS:**

**Special contractual conditions precedent to the first disbursement:**

(a) establishment of the Authorization Committee (see paragraph 3.9) and the program coordination unit (see paragraphs 3.2, 3.3 and 3.4); (b) opening of a special program account (see paragraph 3.10); and (c) program operating regulations (see paragraph 3.7).

The loan contract will specify that the interagency coordination agreement will have been executed prior to the program's approval (see paragraph 3.1).

**EXCEPTIONS TO  
BANK POLICY:**

See Procurement.

**PROCUREMENT OF  
GOODS AND  
CONTRACTING FOR  
WORKS AND  
CONSULTING  
SERVICES:**

The program will adhere to Bank contracting and procurement policies. The thresholds for international competitive bidding will be US\$1.5 million for works, US\$250,000 for goods, and US\$200,000 for consulting services. The general procurement notice (GPN) for this emergency program will need to be published in the international publication *Development Business* on a one-time basis only. The notice will indicate that specific procurement notices will not be published in *Development Business* but, rather, advertised in newspapers with nationwide circulation, with a stipulation to the effect that there will be no restrictions on bidding by international firms (see paragraphs 3.14 and 3.15).

Contract awards for values under the indicated thresholds for international bidding will be made in accordance with simplified procedures consistent with domestic legislation and Bank procedures. These simplified procedures were developed based on the Bank's previous experience with emergency programs for Ecuador (loan 1057/OC-EC and project No. EC-0187), Peru (loan 1058/OC-PE), Argentina (loan 1118/OC-AR) and Paraguay (loan 1117/OC-PR). Detailed information on these procedures can be found in the technical files available for consultation.

## I. FRAME OF REFERENCE

### A. Types of natural disasters

- 1.1 The geological and geographic situation of the Republic of Guatemala exposes it to numerous threats, such as floods, droughts, volcanic eruptions, landslides, earthquakes, etc. The country's vulnerability to a wide range of phenomena with a tendency to cause disasters has engendered massive loss of human life, loss of social capital valued in the millions, and lags in the pace of production and, in general, in all facets of sustainable development, requiring stepped-up efforts to mitigate the adverse effects of natural disasters grounded in participatory, collaborative approaches, through the implementation of policies and programs before, during and after their occurrence.
- 1.2 The specific types of disasters seriously affecting Guatemala over the course of this past year are landslides or slope washouts, floods, fires and volcanic eruptions. Landslides or slope washouts are natural phenomena occurring as a byproduct of heavy rains reducing the consistency of mountain sides or as a result of even the smallest telluric movements. Flash floods are another byproduct of heavy or torrential rains which, in turn, are produced by meteorological phenomena such as hurricanes, which release large amounts of moisture in the form of scattered storms upon colliding with orographic barriers, as these storms move inland. These heavy or torrential rains raise the levels of rivers, which overflow their banks, producing flooding and causing damage mostly to the country's southern coastal areas.
- 1.3 Another phenomenon exposing the country to risks of massive flooding is the phenomenon known as El Niño which, due to the heavy concentrations of clouds produced by the warming of the Pacific Ocean, is causing heavy rainfall in all parts of the country.
- 1.4 El Niño has been a recurring phenomenon in Guatemala over the course of the past several years, varying in its severity, producing extremely heavy rainfall in the south and droughts in the northern and eastern parts of the country. Torrential rains associated with tropical storm Javier (Xavier) lashed the entire country throughout the first two weeks of August 1998, particularly the southern and northwestern coasts, along its border with the Mexican state of Chiapas, hitting the department of San Marcos especially hard, causing landslides and the flooding of approximately 11 rivers, resulting in massive human casualties and property damage.
- 1.5 Excessive tree cutting associated with the use of wood as fuel by residents of areas hardest hit by natural disasters, the advance of the agricultural frontier into the upper reaches of river valleys, and the replacement of native vegetation by new plant species with

a higher market value but incompatible with prevailing climatic conditions are precipitating shrinkages in plant cover and soil erosion in watershed areas.

- 1.6 In addition to these problems, climatic changes along the Atlantic and Pacific coasts triggered by different types of environmental effects are causing severe droughts. As a result, raging fires devastated portions of northern Petén back in March 1998, a jungle area regarded as one of the world's lungs. Guatemala City was seriously affected by eruptions of the Pacaya Volcano in March and September 1998, producing showers of ash up to 10 cm thick and requiring the international airport of La Aurora to shut down on both occasions. These incidents also necessitated the relocation of several communities in the vicinity of the volcano. The large quantities of ash caused problems with clogged drainage and sewerage systems throughout Guatemala City.

B. Damage from natural disasters

1. Impact on Guatemala's infrastructure and economy

- 1.7 Over the last six months, torrential rains brought by tropical storms have fallen throughout the national territory, particularly the southern and northwestern coast along the border with the Mexican state of Chiapas. This has caused significant landslides and more than 11 rivers have burst their banks, causing loss of human life and property. According to CONRED data, as of September 16, infrastructure damage had been quantified as follows: 1,099 dwellings at high risk, 111 with severe damage, 84 with moderate damage, 142 with slight damage, and 299 completely destroyed; one school had sustained minor damage and another was completely destroyed; a total of 67 landslides on 12 roads, 15 bridges destroyed; in the agriculture sector, 1,858 hectares of crops were damaged; in other areas, 215 beach kiosks were destroyed.
- 1.8 The economic sectors most directly and severely affected by natural disasters are agriculture, transportation and agro-based industries. Losses of value added by production directly attributable to natural disasters could be on the order of 0.5 to 1.0 percentage points of GDP. Accordingly, the growth rate for the Guatemalan economy, which was projected at 5% for the year 1998 before the country was hit by the latest series of natural disasters, is expected to be cut back to between 4.0% and 4.5%.
- 1.9 The agricultural sector has been deeply affected by natural disasters in different ways, with nearly 2,000 *manzanas* [1,400 hectares] of farmlands flooded along the country's southern coast, representing over 200,000 hundredweight of lost crops. Guatemala does not expect an improvement in climatic conditions anytime in the immediate future. On the contrary, the situation is expected to get worse.

- 1.10 The transportation industry is also directly impacted, with damage to the road system in flooded areas obstructing the flow of highway traffic. There are close to 8,000 kilometers of damaged unpaved roads requiring repair and maintenance work, along with more than 15 bridges and nearly 300 kilometers of paved highways which need to be rebuilt.
- 1.11 There are presently 482,829 people threatened by flooding throughout the country, particularly in the departments of Escuintla, Alta Verapaz, San Marcos, Jutiapa, Retalhuleu, El Petén, Izabal, Santa Rosa, Guatemala, Quetzaltenango, El Progreso and Zacapa, with more than 83,000 homes exposed to this same risk in the same areas of the country.
- 1.12 The effects of Hurricane Mitch, which hit the country starting on October 30, have been considerable. Damage was severe in 14 of Guatemala's 22 departments. To date, there have been 186 fatalities, 78,000 people evacuated, 100,000 homes destroyed, 30 roads damaged, and 22 bridges destroyed. An early estimate of losses in infrastructure approaches US\$30 million. In the agriculture sector, damage was caused to banana plantations on the Atlantic coast, maize, bean, melon, vegetable, tomato, rice, and sesame seed crops have been severely affected, and over 250,000 hundred weight of coffee have been lost.

## 2. Social effects

- 1.13 The social effects of massive flooding are enormous and particularly severe in poorer areas, which are generally areas especially prone to flooding. These social effects are embodied in losses of human lives, losses of jobs, drops in household income, in a severe, adverse impact on the delivery of social services, in the weakening of physical social infrastructure, in the erosion of what are already precarious living conditions for poor and extremely poor groups, and in the traumatic disruption of the daily lives of all social strata in the regions directly affected.
- 1.14 Water supply and sewerage infrastructure and latrines in rural areas have been severely damaged by these same phenomena. Piles of refuse and solid wastes are turning into sources of pollution. The collapse of water supply, sewerage and drainage systems is creating conditions propitious to a general regression in the status of public health, embodied in outbreaks of epidemics, increased morbidity associated with acute diarrheal diseases and acute respiratory infections, the resurgence of dengue fever and malaria, the erosion of food safety, and the likelihood of outbreaks of rabies during the emergency phase and of bubonic plague in its aftermath.
- 1.15 More specifically, Guatemala's problems stemming from natural disasters occurring in the second and third quarters of 1998 can be summed up as follows: over 80,000 victims, approximately

220 fatalities, and over 600,000 people at risk. Roughly 75% of the victims are concentrated in the department of San Marcos, with the remaining 25% along the country's southern coast. The majority are members of poor and extremely poor rural and indigenous communities. Women and children directly affected by disasters will require special attention.

C. Government strategy for coping with the effects of natural disasters

- 1.16 On August 3, 1998, the government declared an emergency in the departments of Escuintla, Retalhuleu, Suchitepequez, San Marcos, Quiché, Alta Verapaz, Izabal, Huehuetenango and Quetzaltenango and parts of Guatemala City. By Government Decree 1-98 of October 30, 1998, the government declared the entire country a public disaster.
- 1.17 Guatemala is equipped with a coordination system enabling it to mount disaster preparedness and mitigation activities via the Coordinadora Nacional para la Reducción de Desastres (CONRED) [Disaster Mitigation Coordination Committee], an agency equipped with its own network of field offices at the regional, departmental, municipal and local levels established under the provisions of Decree 109-96. This coordination system draws on the government and private sectors, as well as on service organizations. Physical and financial donor relief efforts in all emergency situations faced by the country are coordinated by CONRED.
- 1.18 CONRED is comprised of representatives of the Ministry of National Defense, the Ministry of Public Health and Social Welfare, the Ministry of Education, the Ministry of Public Finance, the Ministry of Communications, Transport, Public Works and Housing, the Ministry of the Interior, the Fire Department, the Coordinating Committee for Agricultural, Business, Industrial and Financial Associations, and the Conference of Presidents of Professional Associations.
- 1.19 It operates at the following levels: (i) the nationwide level, in conjunction with the National Council and the Executive Board and Executive Secretariat for Disaster Mitigation; (ii) the regional level, made up of public, private and civil society organizations; (iii) the departmental, municipal and local levels, within each community, with the active involvement of mayors, governors and regional CONRED directors.
- 1.20 By means of the June 5, 1996, agreement with the Comisión Nacional del Medio Ambiente (CONAMA) [National Environment Commission] (Decree Law 68-96/1-931), the Dirección General de Caminos (DGC) [Highways Directorate] is authorized to issue official opinions on behalf of CONAMA and set environmental impact assessment criteria via the Departamento de Gestión Ambiental (DGA) [Department of



Environmental Management] attached to the Planning and Studies Division of the MCTOPV/DGA.

- 1.21 The DGC participates in the disaster preparedness phase by performing dredging operations, protecting riverbanks and rebuilding highway infrastructure (drainage works, bridges, roads, etc.), and in the emergency phase by clearing landslides, evacuating communities, transporting materials, etc.

D. Assistance from other international agencies

- 1.22 CONRED has received the following support from the international community: the Swedish International Development Authority is financing a project to reduce the risk of flooding in the Coyolate River basin, for a total of US\$237,000; the German Ministry of Cooperation is providing financial support for the project to strengthen local early-warning structures and systems for a total of US\$272,500; the European Community granted US\$28,000 to support the local early-warning system for floods and additional aid in the amount of US\$90,000 is being arranged; the Norwegian Agency for International Development is providing US\$106,700 to strengthen local disaster mitigation structures in San Sebastián, Retalhuleu; USAID provided US\$25,000 to fight the forest fires that raged in Petén early this year. The international community has begun a significant humanitarian aid campaign to alleviate the initial effects of Hurricane Mitch.

E. The Bank strategy and the role of Bank assistance

- 1.23 The Bank's strategy in Guatemala, as defined in the country paper, consists of: (i) incorporating poor, indigenous and rural populations into the process of sustainable development, primarily through community participation programs helping to speed up and consolidate the peace process; (ii) expanding and improving social services through programs designed to strengthen the coverage, quality and efficiency of basic social services; (iii) modernizing the State, by supporting reforms designed to improve efficiency in all three branches of government, strengthen the delivery and regulation of public services and restructure government spending and public financial management; and (iv) furthering the development and growth of productive sectors through activities that promote the efficient flow of capital and boost the international competitiveness of products.
- 1.24 Bank policy in regard to natural disasters (OP-704) specifies that the main goal of Bank involvement in this area is to help disaster-stricken member countries effectively protect themselves and resume their socioeconomic development effectively and adopt appropriate measures to prevent or curtail losses caused by natural disasters.

## II. THE PROGRAM

### A. Design, operational structure and objectives

- 2.1 The design and operational structure of the emergency program to support Guatemala are based on the experience gleaned by the Bank in conducting similar operations in Ecuador (loan 1057/OC-EC), Peru (1058/OC-PE), Paraguay (1117/OC-PR) and Argentina (1118/OC-AR).
- 2.2 The program objective is to help the Government of Guatemala finance necessary operations to repair damage and provide relief for disaster-stricken populations, and to mount activities for the prevention and mitigation of losses of physical infrastructure and services engendered by natural disasters, and the reconstruction thereof.
- 2.3 The volume of program funding and selected works and projects are those most urgently needed to mitigate present damage and prevent future negative effects, including an early estimate to cope with the damage caused by Hurricane Mitch. There are no budgeted funds for the performance of these works, in view of the unpredictability of disasters. The works were chosen by disaster mitigation institutions for their important social and economic impact on the national development process.

### B. Program components

- 2.4 The emergency program in response to natural disasters has two main components, namely: (i) Component 1, prevention, with a total cost of US\$17.9 million; and (ii) Component 2, mitigation and reconstruction, with a total cost of US\$25,146,000. As indicated in Table 1, preventive works and activities amounting to US\$9 million (Component 1) and disaster mitigation and reconstruction works and activities amounting to approximately US\$8 million (Component 2) were identified on a preliminary basis. These projects have been selected by the institutions involved - MCTOPV, MAGA, and CONRED - in the context of the procedures established for this operation and because they are high priority projects for the regions affected by natural disasters in 1998.
- 2.5 Additional projects and activities will be jointly identified by the borrower and the Bank during the first six months of the program, to be financed by the remaining US\$25,96 million. These as yet unidentified projects and activities will be designed primarily to strengthen local structures for the establishment of a natural disaster preparedness and mitigation culture through the implementation of early flood warning systems, emergency preparedness training for students, parents and teachers, the provision of communications equipment, etc., in line with Bank policy in this area.

<b>TABLE 1. COST BREAKDOWN, BY ACTIVITY</b>	
<b>EMERGENCY PROGRAM IN RESPONSE TO NATURAL DISASTERS (GU-0137)</b>	
<b>ACTIVITY:</b>	<b>Total cost (US\$)</b>
<b>Component 1: Prevention works</b>	
Drainage of a total of 8 km of land used for agriculture and/or forestry along the Coyolate River.	312,500
Special restoration work for slope stabilization, in various watersheds.	781,250
Dredging of the estuary and beach nourishment, Isla el Tulate, Tilapa.	468,750
Dredging of 100,000 m <sup>3</sup> along the Sarampaña-Las Lisas-Barra El Jijote section. Dredging of 75,000 m <sup>3</sup> between La Avellana-Monterrico. Dredging of 100,000 m <sup>3</sup> between La Barrita-San José. Cleanup and stump removal in the Chiquimuililla channel.	1,687,500
Riverbank protection and correcting meanders of the Paz River.	1,093,750
Protection of the approaches to bridges III and IV on the San Rafael-Pies de la Cuesta-Malacatán section of National Highway I.	781,250
Flood control in El Guisocoyol subdivision and hamlet of El Castaño Puerto de Iztapa, María Linda River.	1,875,000
Studies Salamá River watershed	2,000,000
Subtotal identified:	<b>9,000,000</b>
Subtotal pending:	<b>8,944,000</b>
Total for Component 1:	17,944,000
<b>Component 2: Mitigation and reconstruction works</b>	
Repair and/or construction of drainage works for a total of 37 km of agricultural land, Naranjo River	1,093,750
Riverbank protection and correcting meanders of Naranjo River	468,750
Protection of Santa Ana Mixtán and Santo Domingo, 5 km, Coyolate River	1,875,000
Meander correction, Villa Lobos	1,250,000
Stabilization of the river channel, riverbank protection, Pensativo River	1,562,500
Repair and/or construction of drainage works on agricultural land in El Guisocoyol subdivision and hamlet of El Castaño, María Linda River	937,500
Subtotal identified:	<b>8,125,000</b>
Subtotal pending:	17,021,000
Total for Component 2:	25,146,000

1. Component 1. Disaster damage prevention (Total cost: US\$17.9 million)
- 2.6 The objective of this component is to prevent or minimize future damage and physical losses caused by natural disasters, by building an adequate emergency response capacity within institutions established for this purpose.
- 2.7 The government has been conducting a number of preventive activities with regular national budget funds since August of this year, when the emergency arose.
- 2.8 Some of the main preventive activities provided for under this operation are as follows:
  - (a) Drainage of farmland: in the communities of Santa Ana Mixtán and the Santo Domingo district, municipality of Nueva Concepción, Escuintla. It is estimated that 8 km, with a 15-m<sup>2</sup> hydraulic section, will help to improve the current conditions of the land. An estimated 6,600 people will benefit, with disaster mitigation provided for almost 2,000 dwellings.
  - (b) Stabilization of slopes and landslide-prone areas: mechanical means and bioengineering techniques are expected to be used, to help prevent disasters like the ones that already hit communities in Quiché and San Marcos. Some 200 families (about 1,200 people) who live in extreme poverty will benefit directly.
  - (c) Dredging of the estuary and nourishment of the Isla Tulate beach in Tilapa: the erosion of the beach near the mouth of the Naranjo River caused Isla Tulate to be partially destroyed. The works will benefit some 90 families (540 people). Some 26,000 people in this sector are indirectly endangered.
  - (d) Dredging of the Chiquimulilla channel; activities to be carried out include the dredging of 275,000 m<sup>3</sup>, with a section estimated at 15 meters wide and 2 meters deep. These works will directly benefit 4,000 people along the Las Lisas-La Barra section; 2,000 along the Avellana-Monterrico section; and 32,300 along the Barrita-San José section.
- 2.9 In terms of social organization, CONRED has been working to strengthen the social network to establish a culture of natural disaster prevention and mitigation. Currently, two pilot projects are being carried out, one in the Coyolate River basin and the other in the Salamá River basin. In both cases, a monitoring system for early flood warning is being set up, managed by the respective communities.
- 2.10 Table 1 contains a list of projects identified for financing with program resources under this component, amounting to US\$9 million.

2. Component 2. Disaster mitigation and reconstruction phase  
(Total cost: US\$25.15 million)

- 2.11 The objective of this component is to minimize loss of human life and property in the face of natural disasters and repair damage to transportation infrastructure and sanitation services as soon as possible. The value of projects for disaster mitigation works identified at this stage is US\$8.1 million (see Table 1).
- 2.12 Accordingly, this component includes activities providing for the temporary repairing and permanent rebuilding of damaged physical infrastructure and basic services in the following areas: (i) transportation; (ii) sanitation; (iii) equipment; and (iv) other activities to be jointly decided on by the borrower and the Bank at a future date.
- 2.13 These sectors were selected in conjunction with the government, bearing in mind the involvement of other international agencies in the financing of disaster mitigation activities and reconstruction work in other impacted sectors. The areas most damaged by the recent natural disasters have been identified through this process, and the projects identified have high priority.
- 2.14 The main activities to be carried out under this component include:
- (a) Rehabilitation and/or construction of farmland drainage systems, Naranjo River: the districts of La Blanca, Chiquirines, San Luis and El Tule, with over 10,100 people, will be benefited. A 9-m<sup>2</sup> hydraulic section for 32,000 linear meters of drainage channels is being considered.
  - (b) Protection of Santa Ana Mixtán and Santo Domingo, 10 km; Cerro Colorado, 4 km; and Texcuaco and Chontel, 13 km, on the Coyolate River. These actions will benefit some 65,000 people.
  - (c) River-bed stabilization and riverbank protection for the Pensativo River: this project will directly benefit the population of Antigua Guatemala, through the stabilization and correction of the river-bed and the construction of some 360 m<sup>3</sup> of dikes. The dredging of 87,500 m<sup>3</sup> is being considered. Approximately 60,000 people will benefit.

C. Total cost and financing plan

- 2.15 The cost of the program is US\$44.47 million, of which the Bank would finance US\$40 million, or 90% of the total cost, from the ordinary capital under the Single Currency Facility.
- 2.16 The financial conditions are as follows: a variable interest rate, a commitment fee equal to 0.75% of undisbursed loan balances, an inspection and supervision fee equal to 1% of the loan, and a 30-year amortization period. This period is justified by the state

of emergency, and is consistent with the provisions of the Bank's policy on natural disasters (OP-704) and its policy on amortization periods (OP-902, GN 91-6).

- 2.17 The following items will be financed with loan proceeds: (i) preventive activities, as well as disaster mitigation and reconstruction phase activities, in the selected sectors, and program administrative costs; (ii) financial audits; and (iii) the inspection and supervision fee.
- 2.18 The US\$2.8 million in local counterpart funding will be furnished by the national treasury, and will be used to finance: (i) part of the cost of the disaster prevention, mitigation and reconstruction components; (ii) part of the program's administrative costs; (iii) the credit fee; and (iv) taxes on goods and services (value added taxes and customs duties).
- 2.19 Administrative costs include: (i) program coordination unit (PCU) operating costs for a period of three years; and (ii) the cost of independent external financial audits.
- 2.20 The additional PCU operating costs include fees for up to eight technical evaluation experts, including experts in environmental, social and institutional assessments and a financial/accounting expert, as well as the cost of travel and per diems to inspect works in progress, and the cost of the procurement of two vehicles. Staff assigned to the project will be recognized as local counterpart funding of the PCU. Incremental administrative and operating costs that the PCU generates in managing the program will also be recognized as local counterpart.

TABLE 2. PROGRAM COSTS (In thousands of U.S. dollars)			
Financing items	IDB	Local 1/	Total
1. <u>Administrative costs of the program</u>	618	62	680
1.1 Coordination unit	568	62	630
1.2 Independent external financial audits	50	0	50
2. <u>Program components</u>	38,982	4,108	43,090
2.1 Prevention	16,350	1,594	17,944
2.1.1 Civil works	14,350	1,594	15,944
2.1.2 Consulting services	2,000	0	2,000
2.2 Mitigation and reconstruction	22,632	2,514	25,146
2.2.1 Civil works	22,632	2,514	25,146
3. <u>Financial costs</u>	400	300	700
3.1 Credit fee		300	300
3.2 Inspection and supervision	400	0	400
TOTAL	40,000	4,470	44,470
PERCENTAGE	90	10	100

1/ Includes the payment of taxes.

### III. PROGRAM IMPLEMENTATION

#### A. Borrower and executing agency

- 3.1 The borrower is the Republic of Guatemala. The executing agency for the program will be the Dirección General de Caminos (DGC) [Highways Directorate] attached to the Ministry of Communications, Transportation, Public Works and Housing (MCTOPV), with all activities to be coordinated by a coordination and execution team headed by the Director of the DGC. CONRED and the Ministry of Agriculture and Food Supply (MAGA) will actively participate and collaborate in the program. A framework interagency coordination and execution agreement was signed by the ministers of the participating agencies in October of 1998.

#### B. Program coordination unit (PCU)

- 3.2 The responsibility for program coordination and execution will lie with the DGC, via the program coordination unit (PCU). To enable it to discharge its functions, the PCU will be staffed with DGC permanent professionals and staff members, as well as with consultants in specialized areas not covered by the DGC staff, such as an expert in social assessment. The terms of reference for these contractors will need to be agreed upon with the Bank in advance.
- 3.3 The functions of the PCU will be to: (i) monitor and assess the social impact of natural disasters on poor populations; (ii) monitor the program's environmental impacts; (iii) monitor the program's institutional aspects, to which end PCU personnel will need to have experience in planning post-disaster recovery operations; (iv) monitor the procurement process for program goods and services and furnish supporting administrative and accounting services; (v) review eligibility criteria for activities targeted for financing with the Authorization Committee; (vi) accept and review applications for financing and verify compliance with general and specific project eligibility requirements; (vii) make recommendations for the financing of eligible activities, in line with program criteria and procedures; (viii) present requests for disbursements of funding under the loan contract with the Bank and assist the executing agency in obtaining local counterpart funds, to ensure that the program is fully funded; (ix) ensure the program's environmental quality, based on standards to be agreed upon with the Bank; (x) prepare program progress reports for submission to the Bank and furnish any other technical, legal, economic, institutional or financial information it may be asked to provide; (xi) ensure compliance with all obligations in regard to the program's execution; and (xii) closely coordinate the efforts of all program participants.



- 3.4 The establishment of the PCU with the functions, personnel and other resources required for execution of the program will be a condition precedent to the first disbursement

C. Program execution mechanisms

- 3.5 Program execution will be driven by requests for the financing of eligible activities presented by the executing agency to the Authorization Committee and the PCU. These requests will originate with bodies such as regional and local governments and institutions, which will be responsible for conducting the activities in question, and will be channeled through the ministries to which they report or with which they are connected.
- 3.6 Insofar as possible, the borrower will rely on the experience of public or private local institutions (including nonprofit organizations), drawing on this experience for the design and execution of program activities, particularly operations involving humanitarian aid, as well as for technical monitoring and the design of program dissemination mechanisms. PCU professional staff members will need to familiarize themselves with these agencies and organizations, to enable them to make recommendations with respect to including them in or hiring them for the program.
- 3.7 The program operating regulations will be drafted and provide full particulars on: (i) procedures associated with drafting and presenting requests for the financing of eligible activities for approval by the Authorization Committee; (ii) technical, financial and environmental eligibility criteria (including terms of reference for the PCU environmental specialist and a preliminary environmental appraisal on the EIA requirements for projects shown in Table 1) of the projects to be financed; (iii) the flow and allocation of resources and disbursement procedures; (iv) coordination mechanisms; and (v) monitoring and reporting mechanisms. The presentation of program operating regulations for consideration and approval by the Bank will be a condition precedent to the first disbursement.

D. Communication mechanism

- 3.8 CONRED will provide mechanisms for communicating with the population in high-risk areas to provide information on procedures to be followed in the event of a disaster and on the assembly points to which disaster victims should report to have their basic needs attended to. For this purpose, CONRED has a network of field offices at the departmental and local levels around the country, through which detailed surveys are conducted on the needs of the population directly affected.

E. Financing mechanism and Authorization Committee

- 3.9 Requests for financing presented to the executing agency will be approved by an Authorization Committee consisting of the Minister of Communications, Transport, Public Works and Housing (MCTOPV), the Minister of Agriculture and Food Supply (MAGA), and the CONRED Executive Board and Executive Secretariat Coordinator, or their representatives. The Director of the Highways Directorate will sit on the committee in his capacity as the officer in charge of program implementation. The establishment of the Authorization Committee and its operating mechanism will be a condition precedent to the first disbursement.
- 3.10 Program resources earmarked for the financing of eligible activities will be deposited into a special account, whose accounting records will be kept separately from those of the other accounts maintained by the executing agency. The opening of this special account will be a condition precedent to the first disbursement.

F. Recognition of expenditures and retroactive financing

- 3.11 Considering that ongoing preventive activities date back to August of 1998, when the emergency was first declared, and that the government has already made large outlays, it is recommended that: (i) a total of up to US\$1.5 million in expenditures be allowed against the local contribution; and (ii) up to US\$3 million be recognized retroactively against the proceeds of the loan. Allowable expenditures are those made in accordance with Bank procedures for the procurement of goods and services and the contracting of works.

G. Commitment and disbursement periods

- 3.12 The period for the commitment of loan proceeds will be two years, from the effective date of the loan contract. Balanced not committed during this period will be cancelled by the Bank. The period for disbursement of the loan will be three years from the same date.
- 3.13 The following table contains a preliminary disbursement schedule:

DISBURSEMENT SCHEDULE (millions of U.S. dollars)				
	Year 1	Year 2	Year 3	Total
Bank	20.0	15.0	5.0	40.0

H. Procurements of goods and contracting for works and services

- 3.14 The Bank's Procurement Policy and Coordination Office (REI/PRM) has developed simplified procurement procedures for this type of operation based on its previous experience with emergency programs for Ecuador (loan 1157/OC-EC and project No. EC-0187), Peru (loan 1158/OC-PE), Argentina (loan 1118/OC-AR) and Paraguay (loan 1117/OC-PR). Detailed information on these procedures are available in the technical files for consultation.
- 3.15 Procurement procedures applicable to the implementation of this emergency program require that the general procurement notice (GPN) be published in *Development Business* on a one-time basis, for procurements subject to international competitive bidding in line with current thresholds for Guatemala. Procurements for values under these threshold amounts will be made in accordance with procedures indicated in domestic legislation and with Bank procedures specified in the project's technical files.

I. Operation and maintenance

- 3.16 Each agency benefitting from works and equipment financed with Bank funding must undertake to operate and maintain these works and equipment in accordance with generally accepted technical standards. To this end, the borrower will need to present annual reports by the end of the first quarter of each calendar year, beginning in 1999 and continuing throughout the program implementation period, on the condition of these works and equipment based on the findings of the monitoring of a representative sample of projects financed with program resources.
- 3.17 The borrower will allow the Bank to visit and inspect projects financed under the program throughout the program execution period. Should the Bank find the maintenance of any such project unacceptable, the borrower and the interested agency will be obligated to take all necessary steps to remedy this situation.

J. Inspection and supervision

- 3.18 The Bank will determine what it considers to be necessary inspection procedures to help ensure that the program is properly executed, especially with regard to the bidding process, given the simplified procedures that are being authorized, including the technical supervision of works financed with program resources. The PCU, in turn, will need to have its own supervision plan, and will be required to furnish any and all necessary assistance for the optimal achievement of this goal.

K. Program monitoring

1. Execution plan, progress reports, semiannual meetings and final report

- 3.19 The PCU will submit an initial report to the Bank establishing a detailed plan of action for the activities to be carried out over the next six months, including a timetable, resources required, delegated responsibilities and targets. This report will be submitted as part of the initial report provided for under the general conditions set forth in Bank contracts.
- 3.20 It will also present half-yearly progress reports evaluating the implementation of the action plan referred to in the preceding paragraph with an appropriate degree of detail. These reports will contain, *inter alia*, information on works and equipment financed, beneficiaries served, procedures followed for the use of loan proceeds, and on the number of projects approved over the course of the six-month reporting period. The progress report for the last six months of the program execution period will serve as the final program report.
- 3.21 Program monitoring meetings will be held within a period of one month from the date of submission of each half-yearly progress report to discuss calls for tenders, the environmental effects of projects carried out, disbursements, any problems arising in the course of program implementation and ideas for overcoming such problems, as well as other issues relevant to the program implementation process. These meetings will also be used to decide on the specifics for the plan of action for the upcoming six-month period.

2. Financial audits

- 3.22 The PCU will be required to submit audited financial statements for the program to the Bank, duly certified by an outside auditing firm acceptable to the Bank, in accordance with Bank procedures. Program audit reports must be presented within 120 days from the close of the fiscal year in question.

3. Environmental monitoring

- 3.23 In general, the proposed program activities are designed to mitigate the adverse effects of natural phenomena and, as such, are expected to have a positive impact on the environment and important social benefits. However, the following criteria have been established as part of the program for purposes of minimizing any potential environmental damage:
- 3.24 **General criteria.** The following general criteria have been established to guide PCU operations:

- a. Program activities are to be conducted in accordance with principles of sustainability. Any environmental ramifications will need to be assessed in advance, to prevent, mitigate or offset any adverse effects on the environment.
  - b. For the projects to be executed, an environmental quality control procedure will be established that includes a preliminary environmental appraisal. Only projects with significant adverse environmental effects will require an environmental impact assessment (EIA).
  - c. The nature and scale of the projects are such that the environmental review process for most will end with the preliminary environmental appraisal. Projects requiring closer scrutiny include the rebuilding of transportation and sanitation infrastructure and projects identified as such in their preliminary environmental appraisal. All projects will be reviewed for compliance with domestic environmental legislation and standards (for which the DGC/DGA has been vested with the necessary authority by CONAMA) or, in their absence, with recognized international provisions.
  - d. An effort will be made to ensure that program-funded activities do not engender any operations with adverse effects on parks and protected areas, cultural heritage sites, and environmentally fragile areas with valuable ecological resources.
  - e. The impacted population should be involved insofar as possible.
- 3.25 To ensure proper environmental impact monitoring, the PCU will retain the services of an environmental specialist, with terms of reference to be agreed upon with the Bank, to perform the following functions: (i) assess and verify the environmental eligibility of programs and projects based on general and sector criteria established for the program; (ii) organize, study and process environmental data; (iii) ensure the implementation of environmental damage mitigation measures and environmental management plans; (iv) ensure the performance of environmental impact assessments, where required for reconstruction projects; and (v) develop procedures promoting consultation and participation by the impacted population. The environmental specialist will work closely with the Department of Environmental Management (DGA) attached to the DGC.

#### IV. PROGRAM FEASIBILITY, BENEFITS AND RISKS

##### A. Institutional and technical feasibility

- 4.1 Guatemala has an effective network for coping with emergencies, which was already put to the test in the prevention phase and responded by operating effectively.
- 4.2 In fact, CONRED has a network of field offices at the regional, departmental, municipal and local levels established under the provisions of Decree Law 109-96. The coordination system encompasses all government services, private organizations and the general population, with support from each ministry in programming, physical execution and use of budget funds. This institutional arrangement is considered adequate to cope with the emergency.
- 4.3 Moreover, the PCU team to be formed as part of the program will coordinate all decisions affecting program implementation in general and, in particular, resource allocation decisions, directly with the Authorization Committee, to channel funding to the various ongoing activities.
- 4.4 Impacted sectors will be represented by the respective ministry, namely by MAGA, CONRED and the MCTOPV/DGC. Program activities will be conducted either through responsible regional or local agencies or directly by the appropriate ministry and coordinated by the DGC. In any event, participating agencies (i.e. MAGA, CONRED) have the necessary experience with which to carry out the required activities.

##### B. Environmental feasibility

- 4.5 The impacts of natural disasters like those targeted by the proposed program significantly alter the natural and human environment. The proposed program activities are geared to mitigate the adverse effects of natural phenomena and, as such, should have a positive environmental impact, with important social benefits.
- 4.6 Activities mounted during the emergency phase will focus on repairing damage to physical infrastructure and restoring services, and on providing disaster victims with food, shelter, medicine and safe water. The nature of these activities and time constraints are such that only preliminary environmental appraisals will be performed during this phase. Rehabilitation and reconstruction work could impact on the environment, which is why the program includes provisions for the performance of environmental impact assessments and for monitoring compliance with domestic environmental standards.

- 4.7 Provisions for setting up the program coordination unit include the hiring of an environmental specialist with duties defined in terms of reference agreed upon with the Bank.

C. Program beneficiaries

- 4.8 According to calculations of the impact of natural disasters on the populations of high-risk departments, the affected population resides in poor and extremely poor areas.
- 4.9 However, while the program is not targeted exclusively at the poorest segments of the population, it is clear that, as preventive and mitigating measures are successfully implemented, it is these groups which will benefit most from program activities, in that victims of floods or droughts, shortages of food and medicine, epidemics, etc. are generally inhabitants of the poorest and most disadvantaged areas of cities as well as the countryside.
- 4.10 Program implementation is grounded in labor-intensive methods, calling on the community and on microenterprises to actively participate in various activities, such as the rebuilding and maintenance of roads, the cleanup and building of channels, and agricultural activities, to provide jobs for the population affected by the emergency.
- 4.11 In view of the program's impact on poor populations, the PCU team will include an expert in social assessment, whose main duty will be to monitor the effects of the emergency, the needs of the poor, and the manner in which such needs are being met.

D. Program benefits and risks

1. Benefits

- 4.12 The program benefits arise from both prevention actions and damage mitigation and reconstruction. Estimates indicate that approximately 400,000 afflicted people will benefit directly, while another 650,000 people who are at high risk from flooding will benefit indirectly. The river-beds of at least six rivers that are very important to the country will be improved. Drainage of approximately 2,000 hectares of farmland will be recovered. Some 6,500 dwellings will be repaired. Some 8,000 direct victims will be assisted. Fifteen damaged bridges will be reinforced. Improvement works will be performed on roads affected by the natural disasters.

2. Risks

- 4.13 The main risk is that the different agencies and organizations conducting various activities during the emergency phase will fail to properly coordinate their efforts, particularly in the early stages of reconstruction. This risk is minimized by the experience

in Guatemala of the institutions directly involved in the program, as well as by the existence of a signed interagency coordination and execution agreement signed by participating ministries.



**LOGICAL FRAMEWORK, EMERGENCY PROGRAM IN RESPONSE TO NATURAL DISASTERS  
(GU-0137)**

OBJECTIVES	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
economic and social development in by natural disasters.	Changes in poverty rates in impacted departments	National and regional statistics  Bank special evaluations through the Country Office	The Government of Guatemala continues the program priority.
agency in Guatemala attenuated.	Comparative economic and social data, with and without the program.	National and regional statistics.  Special evaluations through the Country Office.	The program is adopted by the population organizations directly involved.
<p><b>S</b></p> <p>Prevention</p> <p>strengthening channeled and protected and channels cleaned up d drains cleaned up cation campaign on of the community</p> <p>Mitigation during emergency and</p> <p>rastructure rehabilitated and/or rebuilt.</p> <p>ces temporarily restored or rebuilt.</p>	<p>CONRED strengthened by end of program. At least six rivers channeled and protected within 18 months. At least 15 bridges reinforced in six months.</p> <p>200,000 people benefited at end of program. At least three campaigns conducted throughout the country by end of program.</p> <p>300 km of roads rehabilitated and/or rebuilt by end of program.</p> <p>8,000 victims benefited with rehabilitated or rebuilt basic services.</p>	<p>Executing agency files. Progress reports. Monitoring and evaluation meetings.</p> <p>Bank evaluations, through the Country Office.</p> <p>Audits</p>	The population and organizations involved participate actively in the execution phase provide adequate maintenance.

OBJECTIVES	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
activities cation of priorities ed contracting	US\$10,000,000	Program budget  Disbursement control	The population accepts and cooperates in the adoption of measures for prevention and mitigation.  Participating agencies coordinate their efforts well.
activities cation of priorities ed contracting	US\$14,358,000	Audits	The contracts are concluded on a timely basis.  Forecasts involving natural disasters, particularly the El Niño phenomenon, are timely and accurate.
Administration	US\$618,000 Total US\$27,765,000		

RGII-GU157P  
GU-0137  
Original: Spanish

**PROPOSED RESOLUTION**

**GUATEMALA. LOAN \_\_\_/OC-GU TO THE REPUBLICA DE GUATEMALA  
Natural Disasters Emergency Program**

**The Board of Executive Directors**

**RESOLVES:**

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the República de Guatemala, as Borrower, for the purpose of granting it a financing to cooperate in the execution of an Natural Disasters Emergency Program. Such financing will be for the amount of up to US\$40,000,000, from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and will be subject to the "Terms and Financial Conditions" and to the "Special Contractual Conditions" of the Executive Summary of the Loan Proposal.