

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 1, 1998)

Currency Unit = Peso

1 Peso = US\$0.06

US\$1.00 = 15.7 Pesos

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

CC	Project Coordination Unit (Comisión Coordinadora)
CEPAL	Economic Commission for Latin America and the Caribbean
	Dominican Electricity Corporation
DC	Civil Defense
EIB	European Investment Bank
FEMA	Federal Emergency Management Agency
GODR	Government of the Dominican Republic
IDB	Interamerican Development Bank
INAPA	National Institute of Water and Drainage
INDRHI	National Institute of Water Resources
INVI	National Housing Institute
NWS	National Weather Service
ONM	National Meteorological Office
PROCOMUNIDAD	Fund for Promotion of Community Initiatives
SEOPC	Secretariat of Public Works and Communications
STP	Technical Secretariat of the Presidency
USAID	United States Agency for International Development

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**Dominican Republic
Hurricane Georges Emergency Recovery Project**

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Map

DOMINICAN REPUBLIC
Hurricane Georges Emergency Recovery Project

Project Appraisal Document
Latin America & the Caribbean
LCC3C

Date: December 3, 1998	Task Team Leader/Task Manager: Eugene D. McCarthy
Country Manager/Director: Orsalia Kalantzopoulos	Sector Manager/Director: Daniel M. Leipziger
Project ID: 63201 Sector: Multi-sectoral	Program Objective Category: Emergency Assistance
Lending Instrument: Emergency Recovery Loan	Program of Targeted Intervention: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Project Financing Data	<input checked="" type="checkbox"/> Loan	<input type="checkbox"/> Credit	<input type="checkbox"/> Guarantee	<input type="checkbox"/> Other [Specify]
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For Loans/Credits/Others:

Amount (US\$): 111.11million

Proposed terms:

<input type="checkbox"/> Multicurrency	<input checked="" type="checkbox"/> Single currency - US\$	
<input type="checkbox"/> Standard Variable	<input checked="" type="checkbox"/> Fixed	<input type="checkbox"/> LIBOR-based

Grace period (years): 3

Years to maturity: 12

Commitment fee: .75%

Front-End Fee: 1%

Financing plan (US\$m):

Source	Local	Foreign	Total
Government	15.2		15.2
IBRD	7.1	104.0	111.1
Total	22.3	104.0	126.3

Borrower: The Government of the Dominican Republic (GODR)

Guarantor:

Responsible agencies: The Technical Secretariat of the Presidency, The Central Bank of the Dominican Republic

Estimated disbursements (Bank FY/US\$m):

	1999	2000	2001	2002
Annual	60	20	20	10
Cumulative	60	80	100	110

Project implementation period: 3 years

Expected effectiveness date: 1/31/99

Expected closing date: 1/31/02

A: Project Development Objectives

1. Project development objectives (see Annex 1):

- To help restore, or maintain, growth in key sectors of the economy.
- To support the reconstruction and rehabilitation of key social and economic infrastructure damaged or destroyed by Hurricane Georges in September 1998.
- To reinforce vulnerable infrastructure facilities in order to reduce losses and interruption of critical public services from future natural disasters.
- To strengthen the country's institutional capacity to prepare for and respond to future natural disaster emergencies.

2. Key Performance Indicators

Outcome Indicators

- Stabilization of economic activity for the current (1999) and following year (2000).
- Effective country-wide communication and disaster preparedness prior to future emergencies.
- Appreciable reduction in time for restoration of key public services following a disaster.
- Reduction in damage to the country's critical infrastructure following comparable natural disasters in the future.
- Minimal loss of human lives.

Output Indicators

- Economic activity indicators in tourism and agriculture.
- Completion of physical works in each subcomponent in accordance with design standards and within implementation schedule.
- Completion of operations & maintenance plans for physical works, including annual allocation of funding in national budget, within implementation schedule.
- Emergency management agencies (*Civil Defense, National Meteorology Office(ONM)*) staffed with technically qualified people, with clear roles and responsibilities, and adequately equipped with instruments and facilities by the end of 2002.
- Enactment of building codes and construction standards for public buildings and private residences.
- Completion of hazard analysis vulnerability mapping study and integration of findings in development planning.

Input Indicators

- Specific monitorable indicators to measure the implementation progress of each project subcomponent are summarized in Annex 7

B: Strategic Context

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

Latest CAS document number: 14260-DO
Expected date for next CAS discussion:

Date of latest CAS discussion: May 2, 1995
Spring 1999

The emergency operation directly supports three key goals of the Bank's assistance strategy for the Dominican Republic: alleviating poverty, enabling private sector development by easing critical infrastructure constraints, and improving environmental management.

Through the support to emergency imports by the private sector and the reconstruction and rehabilitation of key economic infrastructure, the emergency operation will help to restore productive capacity affected by the hurricane and thereby mitigate the hurricane's negative impact on economic growth and employment in general. The operation is also designed to address directly the impact of this natural disaster on the poor, as hardest hit marginal areas, typically populated by low income communities, will be specifically targeted for infrastructure rehabilitation efforts.

Environmental damage prevention and mitigation measures of the irrigation subcomponent will lessen the future probability of losses of income, assets and lives resulting from recurrent flooding in specific areas, particularly rural. More broadly, the Emergency Management Institutional Strengthening subcomponent will improve the country's capacity to identify vulnerable areas, prepare disaster plans at the national and community levels, receive and disseminate early warnings, and adopt and enforce risk-mitigating standards and codes.

Since the discussion of the 1995 CAS, the Dominican Republic has experienced significant economic growth, in the context of a transition toward a political environment which is more open to policy reform. This is leading to expectations of a strengthened Bank Group country program in the medium term. Although the parameters for this country program will be clarified in the context of the upcoming CAS, the strengthening of national capacity to prevent and mitigate the impact of natural disasters is already emerging as a key program priority for the medium term. This emergency operation provides a bridge between the latest CAS and the upcoming 1999 CAS, by helping to strengthen the growing consensus on the need for a systematic program of disaster prevention and mitigation.

2. Main sector issues and Government strategy:

Hurricane Georges

Hurricane Georges passed over the Dominican Republic on September 22, 1998, as a category III hurricane with winds reaching 130 miles per hour (map). The eye of the hurricane entered the southeast portion of the country in the morning, traversed the country at approximately 6 mph on a northwest path and arrived at the border with Haiti in the evening, downgraded to category I. The destructive winds destroyed housing, agricultural and industrial infrastructure, uprooted trees and destroyed crops, mainly in the eastern part of the country. The heavy rain was centered in the south/southwest areas of the country and led to floods and rivers overflowing with water and mud, which destroyed bridges, homes, and household and farming equipment; damaged roads, schools, health clinics and water supply systems; and washed away crops, including sugar, bananas, yucca, coffee and vegetables. Because of its diameter, the hurricane affected at least 70% of the country, equivalent to 34,000 square kilometers. The areas most affected are the eastern and southern portions of the country, including some important urban areas such as La Romana, San Pedro de Macoris, Santo Domingo, and San Juan de la Maguana. Some of the principal tourist enclaves in the southeast were badly damaged, as well as critical agricultural zones, such as the fertile San Juan valley and Cibao valley. The death toll now stands at 235.

Economic and Social Impact

A team from the Economic Commission for Latin America and the Caribbean (CEPAL) visited the Dominican Republic in the second half of October and estimated the total cost of direct damages at US\$1.3 billion (8 percent of GDP). While the adverse impact of the hurricane on GDP growth and inflation is expected to be short-lived and limited, the economic recovery is likely to lead to a temporary widening of the fiscal and external current account deficits, largely reflecting increased spending on (mostly imported) basic needs and reconstruction materials.

- ***Agriculture:*** The most important sector of the economy, agriculture accounts for 16 % of GDP. It sustained the greatest damage, from the winds that uprooted trees and plants and destroyed infrastructure, and the rains that caused the rivers, particularly in the south/southwest regions, to overflow, flood fields and destroy cultivated land. One third of all cultivated land was affected

The crops grown for internal consumption were the most affected, particularly bananas and corn. Total damages in the sector, including livestock and fisheries, are estimated at US\$527 million.

- **Transport:** The heavy rains caused serious damage to highways, roads and bridges. 20% of highways were affected, and 40% of local roads. 112 bridges were damaged, 55 of them destroyed. Total damages in the sector, including ports and airports, are estimated at US\$292 million.
- **Housing:** The wind destroyed roofs, windows and external installations, and the rains flooded many homes. The most affected provinces have some of the highest concentrations of poor in the country: Santo Domingo, Monseñor Nouel, San Juan de la Maguana and San Pedro de Macoris. A total of 171,000 of houses, or 10% of the total, were affected, while 49,000 houses, or 3% of the total, were completely destroyed. Total damages are estimated at US\$232 million.
- **Tourism:** The greatest damages were sustained in La Romana, La Altagracia and Juan Dolio. A total of 6,000 rooms were affected, at a estimated cost of US\$149 million.
- **Electricity:** Transmission and distribution networks sustained the greatest damages, primarily in the eastern part of the country. Total damages are estimated at US\$46 million.
- **Education:** 1,334 schools (28% of the total) were affected by the hurricane, of which 203 (4% of the total) were completely destroyed. As 443 of the largest schools were used as refuges for the homeless, the school year started several weeks late for close to 100,000 students. Total damages in the sector, which includes sports and recreation facilities, are estimated at US\$69 million.
- **Health:** Damages in physical infrastructure were moderate – US\$2 million in buildings and US\$4 million in furniture and equipment; the regions most affected are Santo Domingo, La Altagracia, San Pedro de Macoris and La Romana. The indirect cost of attending to emergency needs, estimated at US\$17 million, has made the greatest impact on the sector, as the lack of running water, food and medicine and accumulation of solid wastes resulting in water pollution, have increased the incidence of infectious diseases.
- **Water & Sanitation:** As a consequence of flooding, the sector was adversely affected by damaged electricity lines, water mains and treatment plants, wells, access roads, distribution networks, windmills and emergency motors. Total damages are estimated at US\$16.4 million.
- **Irrigation:** The torrential rains damaged canals and electrical infrastructure. Damages cannot be fully quantified yet because some areas are still inaccessible, but the estimated total so far is US\$8.8 million.

Institutional Preparedness

The lack of national emergency management capability was clearly manifested by the passage of the hurricane. The population was not forewarned appropriately about the impending danger of the hurricane, and the preparation measures taken were vastly insufficient. GODR relies primarily on three agencies to respond to natural disasters: The Red Cross, Civil Defense, and the National Meteorology Office. The Red Cross tried to warn the population about the hurricane in the days before its arrival, but had limited resources and support to do so. It has been quite effective in coordinating the emergency relief effort since the hurricane though, marshalling support from NGOs and international branches of the Red Cross. Civil Defense, an agency of GODR, is poorly staffed and equipped with very weak institutional capacity. It did not forewarn the population about the hurricane, and in the aftermath, has been unable to play a significant role in the relief effort. The National Meteorology Office (ONM), a government entity that depends on the Agricultural Secretariat, is also poorly equipped and staffed. While it supplied accurate information in the days preceding the hurricane, it was hampered by deficient communications technology. The impact of the hurricane was greatly exacerbated by the lack of prevention capabilities of GODR, as evidenced by the fact that the hurricane hit other countries equally hard, but caused minimal or no fatalities (Puerto Rico).

Government Strategy

GODR declared a state of emergency the day after the hurricane, and immediately requested assistance for reconstruction from the international community. Soon after GODR created the Solidarity Fund for Reconstruction, to pool the emergency resources from the state, public and private donations, as well as loans from bilateral and multilateral organizations. GODR has been working very closely with the Bank and other donors, to identify damages and needs and to accelerate loan processing.

GODR has acknowledged the serious shortcomings in its emergency management capability, and has sent a letter to the presidents of both the Bank and the IDB (Annex 11) within the context of the emergency operation, describing its commitment to a program for restructuring and modernizing the institutions responsible for disaster management. The program is described in detail in the accompanying Action Plan and Chronogram (Annex 12). The Puerto Rico offices of the U.S. National Weather Service (NWS) and U.S. Federal Emergency Management Agency (FEMA) have been providing technical assistance to GODR since the emergency to help elaborate such a program. The program, which could be funded by several donors, would be executed in parallel with the reconstruction effort. The Bank would finance US\$7.1 million, specifically to provide: (i) specialized early warning equipment for the ONM; (ii) technical consultants and logistical support for disaster preparedness and response; and (iii) training for national-level ONM staff in disaster preparedness, and for local staff in helping local governments and rural communities to prepare for and respond to emergencies arising from recurring natural disasters.

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

IBRD's three-part strategy to address the emergency situation: The three-part strategy comprises (i) reprogramming of existing projects; (ii) a quick-disbursing component to finance critical imports needed to help stabilize economic activity; and (iii) an emergency investment component. The total amount of Bank financing is US\$134 million.

- ***Reprogramming of investment funds from existing portfolio:*** Approximately 14% of the existing portfolio, or \$24.2 million, has been reprogrammed to provide immediate financing for emergency reconstruction and equipment needs. These funds come from the Basic Education, Provincial Health Services, National Highways and Irrigated Land and Watershed Management Projects, and have been reallocated to address specific needs identified in these four sectors. Disbursements have already begun in all four of the sectors.
- ***Emergency Loan - Quick-disbursing funds:*** GODR has requested emergency assistance to finance urgently-needed imports. This component would provide \$60 million in quick-disbursing funds, which will be used to finance imports from a positive list of items needed to help restore economic activity. Imports would include food, medicines, construction materials, certain chemical products, and primary materials for industry. Approximately 20% of these imports have been procured retroactively. The contents of the positive list have been finalized and are included in Annex 2.
- ***Emergency Loan - Investment funds:*** GODR has also requested emergency investment funds to help finance the multisectoral reconstruction effort. The Bank and GODR have agreed to an investment component of US\$50 million for the following sectors: transport infrastructure (roads & bridges), irrigation and electricity. The Bank has determined that these are the sectors in which reconstruction is most urgent and in which the Bank has either already an ongoing presence (transport and irrigation) or has sectoral experience from similar emergency operations (electricity). The investment component would also include a subcomponent for strengthening of emergency preparedness & response (disaster preparedness, mitigation and management), as well as project implementation support.

**IBRD FUNDS FOR HURRICANE
GEORGES RECONSTRUCTION (US\$M)**

SECTOR	REALLOCATED FUNDS	EMERGENCY LOAN FUNDS	TOTAL
Health	3	0	3
Education	10	0	10
Highways	7.5	22.5	30
Irrigation	3.7	12	15.7
Electricity	0	7.4	7.4
SUBTOTAL	24.2	41.9	66.1
Quick-Disbursing Funds (Imports)		60	60
Strengthening of Emergency Preparedness and Response		7.1	7.1
Project Implementation Support		1	1
TOTAL		110*	134.2

IDB's Emergency Operation: The IDB has prepared emergency financing of US\$178 million, comprising US\$89 million in reallocated funds, US\$30 million to finance emergency social programs in the flood affected areas, US\$30 million for low-income communities (to be channeled through the social fund, PROCOMUNIDAD), US\$20.3 million for rehabilitation in the water and electricity sectors, US\$3.8 million for institutional strengthening in disaster prevention capability (which would be closely coordinated with the Bank-financed component), and US\$5 million to support project implementation. This emergency financing was approved by the IDB Board on December 2, 1998.

C: Project Description Summary

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

Component	Category	Cost Incl. Contingencies (US\$M)	% of Total	Bank-financing (US\$M)	% of Bank-financing
I. Quick-disbursing component		60.0	48	60.0	100
II. Reconstruction & Mitigation					
A. Roads/Bridges	Physical	32.1	26	22.5	70
B. Irrigation	Physical	15	12	12.0	80
C. Electricity	Physical	9.3	7	7.4	80
D. Strengthening of Emergency Preparedness & Response	Institution Building	7.8	6	7.1	100
F. Project Implementation Support	Project Management	1.0	1	1.0	100
	Total	125.2	100	110.0*	

Actual amount of the loan is US\$111,110,000 due to capitalization of the front-end fee of 1%.

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

- This is a multi-sectoral emergency operation which is not intended to address long-term economic issues nor includes conditionality linked to macro-economic policies. Longer term issues of the implementation capacity and maintenance arrangements for infrastructure are being addressed as policy reforms under separate sectoral investment projects.
- However, important investments are included to help reduce the vulnerability of different infrastructure works to recurring natural disasters

- The institutional strengthening subcomponent will improve long-term national preparedness for natural disasters and mitigation capability.

3. Benefits and target population:

Benefits

- The two principal benefits of the project will be:
 - the resumption of economic activity supported by: (i) the quick-disbursing component, which would finance imports needed for agriculture, and reconstruction, and (ii) the investment component, which would finance the rehabilitation of critical public infrastructure;
 - the improvement of GODR's disaster management capability, as a result of the institutional strengthening subcomponent, which would support extensive training, specialized studies on hazard risk mitigation, specialized experts, equipment, logistical support and some infrastructure.

Target Population

- The principal beneficiaries will be the general population of the country, who will benefit from the resumption of economic activity as a result of the rehabilitation of critical economic and social infrastructure.
- Low income groups will also benefit directly from the project, those that live in the marginal areas that were hardest hit by the hurricane, where the reconstruction efforts in roads, bridges, irrigation systems and electricity are being targeted.

4. Institutional and implementation arrangements (see Annex 2):

Project coordination and management

- A Project Coordination Unit (Comisión Coordinadora, CC) is being established within the STP, to coordinate and manage the project. It will comprise staff from both the STP and a project management firm that will be responsible for financial management, monitoring and procurement undertaken by the implementing agencies as well as strengthening the implementation capacities of those sectoral ministries (particularly in the social sectors) that require it. A project management firm will be hired by the IDB to support the CC in managing its emergency loan. It is proposed that the same project management firm be hired for both the Bank and IDB emergency projects under separate contracts. The CC will also coordinate and monitor implementation progress according to agreed performance indicators, and make quarterly reports to both the Bank and the IDB on the progress of each emergency project.

Project implementation

- Each sector investment subcomponent will be implemented by the respective line ministry responsible for that component: the transport subcomponent by the Secretariat of Public Works (SEOPC); the irrigation subcomponent by the National Institute of Water Resources (INDRHI); and the electricity subcomponent by the Dominican Electricity Corporation (CDE). The institutional strengthening subcomponent will be implemented by the Technical Secretariat of the Presidency (STP). The quick-disbursing component will be implemented by the Central Bank.
- The implementing agencies will provide progress reports to the CC on a monthly basis.
- Procurement, contracting and payments to contractors would be undertaken by the respective implementing agencies using Bank guidelines with the assistance of the contract management specialist in the CC, wherever necessary.

Project supervision, reporting and audit requirements

- A Project Implementation Manual will delineate financial management and control procedures, including TORs for internal and external audits acceptable to the Bank.
- Each implementing agency will forecast the amount to be requested from the Special Account on a quarterly basis. The CC will authorize the withdrawal of these funds from the Special Account and make payments directly to the contractors/consultants.

- The CC will periodically supervise the implementation of each component of the project, and undertake periodic field visits.
- The CC will make quarterly reports to the Bank, including a statement of sources and uses of funds, ensuring that all project guidelines are being followed.
- Financial audits for all accounts and components will be carried out annually.
- Technical audits will be carried out for large civil works that do not include technical audits as part of the supervision process.
- Audit reports will be submitted to the Bank no more than 4-6 months after the end of each fiscal year. The first audit report covering expenditures incurred in CY 1998 will be due no later than June 30, 1999.
- The auditing firm will do continuous auditing concurrent with project implementation, throughout the life of the project.

D: Project Rationale

1. Project alternatives considered and reasons for rejection:

- ***Reallocation of project funds, no new lending:*** The reallocation of funds from the ongoing projects in education, health, irrigation and highways to the emergency reconstruction effort is the fastest mechanism to obtain financing for the most urgent reconstruction costs. This was done immediately following the hurricane, and funds are now being disbursed in all four of these sectors. The option of relying purely on reallocated funds for the Bank's portion of the reconstruction effort was considered initially. However, the damages in key infrastructure sectors are considerable, and exceed by a considerable margin the financing available through ongoing projects. Furthermore, there is also a need to provide financing for urgently needed imports to help economic recovery, as well as a need to provide support for institutional strengthening in disaster management. As a result of all these considerations, it was decided that a new emergency operation that included a quick-disbursing component best met the emergency recovery financing needs.
- ***Quick-disbursing funds, no investment funds:*** As the need for quick-disbursing funds for critical imports is urgent, the option of an ERL comprising purely quick-disbursing funds was also considered. However, because of the urgent reconstruction needs in transport and irrigation, where the Bank has ongoing operations, as well as the serious institutional shortcomings in disaster preparedness, it was felt that an emergency investment component should also be included as part of the design.

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned - see Annex 10 for complete table):

The Bank has ongoing projects in transport, irrigation, education, health and environmental policy reform. Implementation progress and adherence to development objectives have been satisfactory to date, although disbursements have been slow. The Bank is preparing projects in the electricity and in the water & sanitation sectors.

3. Lessons learned and reflected in the project design:

From other emergency projects:

- Speed of response is critical. Thus, the operation should be focused and simple, and unburdened with conditionality.
- Rapid preparation is essential for emergency projects to have the necessary impact, creating the need to design accelerated implementation and execution arrangements.
- Project design should also be flexible in order to respond to evolving emergency needs as project implementation yields more information.
- Existing institutions should be strengthened rather than creating new ones.
- Emergency support should incorporate a plan for addressing long-term national disaster management capability.

From project implementation experience in the Dominican Republic:

- As past project implementation experience has been very weak, a strong commitment from GODR is critical to attain the project objectives.
- Most GODR agencies have weak managerial and procurement capacity. Given the size and multisectoral nature of the emergency operation, a consulting firm experienced in emergency reconstruction should support the Technical Secretariat in the financial management and procurement aspects of the project.

4. Indications of borrower commitment and ownership:

- GODR has expressed continuous interest in the emergency operation since the day after the hurricane hit the country, re-emphasizing it at the Annual Meetings in early October. The STP and the sectoral agencies have worked closely with all of the Bank missions in the preparation of the emergency operation.
- GODR has sent a letter to the Presidents of the Bank (and the IDB), stating that the Government is committed to a program of restructuring and modernization of its institutional natural disaster management capacity (Annex 11). The program would be aimed at strengthening the capacity of Civil Defense, ONM and other relevant GODR agencies in prevention, preparedness and mitigation.

5. Value added of Bank support in this project:

- The Bank has ongoing projects in the Dominican Republic in highways and irrigation, and is preparing a project in the power sector. This project takes advantage of the strong working relationships established in these sectors, as well as the technical expertise built up over the years.
- The Bank has considerable experience and expertise in the design and implementation of emergency operations throughout the world, for floods, cyclones, hurricanes and more recently with the El Niño emergency operations. The lessons and best practices from these experiences are being applied to this project.

E: Summary Project Analysis (Detailed assessments are in the project file, see Annex 7)

1. Economic

Roads & Bridges Component (supported by Annex 4):

[X] Cost-Benefit Analysis : ERR= 19.3%

The physical investments financed by the project will be those most urgently needed for the reconstruction, prevention and mitigation effort. Economic analyses will be carried out for the major civil works that require a full design; these will be financed if they have an ERR higher than the minimum acceptable to the Bank (approximately 12%). An economic analysis was performed for the roads & bridges component; the results show an overall economic internal rate of return of 19.3%, with a range varying from 12% to 28%. The economic analysis was carried out using conservative assumptions of the costs of increased travel time and was based exclusively on maintenance, traffic and investment costs.

2. Financial

Not applicable.

Fiscal impact: For all of the physical works completed under the project, the operations and maintenance costs will be calculated, and a commitment will be obtained from GODR to finance and carry out appropriate operations and maintenance. An annual review of operations and maintenance costs will be carried out three months prior to the beginning of each fiscal year.

3. Technical:

The project will follow current economically acceptable best practices in technical standards for infrastructure to ensure their ability to withstand natural disasters in the future and to minimize any negative impact on the environment. Sectoral ministries have been actively involved in the preparation of project components, ensuring their consistency with national technical standards. The critical issues would be the skills of local contractors in applying disaster-resistant technologies and ensuring that, in future, construction throughout the country meets technical standards to withstand natural disasters, especially hurricanes and floods. To address these issues, the project will finance some training of local contractors in disaster-resistant technology, and work with the regulatory and enforcement capacities of GODR in infrastructure construction.

4. Institutional:

- **Implementing agencies:** In general, project implementation capacity is very weak in the Dominican Republic. However, three out of four implementing agencies for the Emergency Loan (CDE, INDRHI and SEOPC) have had experience in implementing Bank projects, and have stronger than average records in implementation.
- **Project management:** Project coordination, monitoring and implementation will be centralized in the CC, which will be located in the STP. The CC will be supported in all aspects of project management by a specialized firm. The CC will be trained in Bank procurement and financial management procedures, and will be responsible for accounting, management of the Special Account and reporting to the Bank. The CC will be staffed with a contract management specialist who will assist the different implementing agencies in awarding and supervising the various contracts required for implementation.

5. Social:

The project is expected to have a positive social impact, as a result of the reconstruction of vital infrastructure such as roads, bridges, electricity transmission lines, and irrigation works. It will benefit the entire population by strengthening the national capacity to prepare for and mitigate the impact of future natural disasters

6. Environmental assessment: Environmental Category ☐ A ☒ B ☐ C

- The project has been rated Category "B".
- The majority of investments are reconstruction and rehabilitation of existing infrastructure, and are therefore not expected to have a negative impact on the environment.
- For any new infrastructure works detailed design studies will include environmental impact analyses.
- The prevention/mitigation work to be done in irrigation and institutional strengthening will ultimately have a positive effect on the environment, in the event of another natural disaster.

7. Participatory approach:

Primary beneficiaries and other affected groups:

The project has been prepared in close collaboration with GODR, local government authorities and other donors, primarily IDB. The sectoral ministries, the local Government authorities, and the national emergency management agencies (Civil Defense, ONM, Red Cross) were directly involved in discussions during the preparation and appraisal missions.

Other key stakeholders:

The project was prepared in close collaboration with local and national NGOs, as well as with church groups, particularly in San Juan de la Maguana and Tamayo, two of the most affected areas. Consultations took place with NGOs such as the Red Cross and FUNDACEP in the San Juan region and Catholic Church officials involved in the relief effort in the south/southwest regions of the country. Consultations also took place with UNDP on the institutional component for disaster management.

F: Sustainability and Risks

Sustainability:

Maintenance of infrastructure: For each of the infrastructure works financed under the subproject, the respective sectoral ministry will be expected to provide an operations and maintenance plan, including a commitment to provide the necessary resources, before disbursements begin. An annual review of operations and maintenance needs for each component will be carried out no later than three months prior to the beginning of each fiscal year. Disbursements on the physical investment components in the second year will depend on whether adequate provisions were made in the annual budget for operations and maintenance of works initiated or completed in the first year.

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

<u>Risk</u>	<u>Risk Rating</u>	<u>Risk Minimization Measure</u>
<i>Annex 1, cell "from Outputs to Objective"</i> <ul style="list-style-type: none"> adequate technical standards are not used for civil works civil works are not adequately maintained overall implementation is weak creation of new government capacity: risk that national emergency management agencies don't have sufficient authority to take leading role in disaster preparedness and response 	Modest Substantial Modest Substantial	<ul style="list-style-type: none"> Part of responsibility of project management firm in CC will be to ensure that technical standards and provisions for maintenance are reviewed annually. Simple project design, reliance on CC and project management firm Institutional "twinning" arrangement with institution experienced in disaster management
<i>Annex 1, cell "from Components to Outputs"</i> <ul style="list-style-type: none"> Counterpart funding is insufficient Capacity in the construction industry is inadequate and contractors are not well supervised Procurement does not adhere to Bank standards 	Modest Modest Modest	<ul style="list-style-type: none"> Proportion of counterpart funds is small Civil works are not complex and within capacity of construction industry Project management firm will oversee procurement
Overall Risk Rating		

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

Possible Controversial Aspects:

- Use of a project management firm to support the Technical Secretariat's management of the project might generate resentment or ill-will among GODR staff.
- Weak implementation capacity may lead to slow disbursements, generating criticism that IBRD is unresponsive to the needs created by the hurricane.

G: Main Loan Conditions

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Items agreed upon during negotiations:

- That a Project Coordination Unit (CC) with a project coordinator and a financial manager will be established, that a project management firm is hired to support the CC, and that a financial management system acceptable to the Bank, will be set up.
- That for each component, the Government will make experienced technical staff available through the CC to the relevant sector ministries or entities for satisfactory implementation of the components.

- That a consulting firm will be contracted for all aspects of financial management and procurement.
- Project implementation Plans
- O&M plans for physical infrastructure works as well as agreement on including resources for O&M of works affected by the program in the annual budget.
- Identification and corresponding documentation for items to be retroactively financed.
- TOR for contract management, project coordinator and financial manager

Conditions of Disbursement for Reconstruction & Mitigation component:

- That adequate O&M provisions will be made in the annual budget for any civil works initiated or completed during the first year of project effectiveness, as a condition of disbursement for the civil works.

Other

- That the Government will provide quarterly progress reports to the Bank and will hold project reviews with Bank supervision missions.
- That the Government will undertake to contract annual financial and technical audits for the project components, and submit audit reports no later than six months following the end of the fiscal year. For the activities to be financed retroactively, such audits will be sent to the Bank no later than June 30, 1999.
- That the Government will comply with the Bank's environmental and resettlement policies as needed.

H. Readiness for Implementation

- [] The engineering design documents for the first year's activities are complete and ready for the start of project implementation. [X] Not applicable.
- [] The procurement documents for the first year's activities are complete and ready for the start of project implementation. [X] Yes.
- [] The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality. [X] Not applicable.

I. Compliance with Bank Policies

- [X] This project complies with all applicable Bank policies.


Task Team Leader/Task Manager: Eugene D. McCarthy


Sector Manager/Director: Danny M. Leipziger


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Annex 1

Project Design Summary

Dominican Republic: Hurricane Georges Emergency Recovery Project

Narrative Summary	Key Performance Indicators	Monitoring and Evaluation	Critical Assumptions
Sector-related CAS Goals: 1. Economic growth and poverty alleviation 2. Improved environmental management	<ul style="list-style-type: none"> • GDP • Data on national growth and income • Gini coefficients 	Central Bank, National Planning Office	(from Goal to Bank Mission) <ul style="list-style-type: none"> • Economic growth will be equitable and have a positive impact on poverty alleviation
Project Development Objectives: 1. To restore and/or maintain growth in key sectors of the economy 2. To support the reconstruction and rehabilitation of key social and economic infrastructure damaged or destroyed by Hurricane Georges in September 1998. 3. To reinforce vulnerable infrastructure in order to reduce losses from future disasters 4. To strengthen the country's institutional capacity to prepare for and respond to natural disaster emergencies.	Outcome Indicators: <ul style="list-style-type: none"> • Economic activity restored, especially in the tourism and agriculture sectors, for the current (1999) and following year (2000). • Damaged infrastructure and facilities restored and functioning by target dates, and able to withstand severe hurricane conditions and protect agriculturally productive regions from future flooding. • Appreciable reduction in time for restoration of key public services following a disaster. • Effective country-wide communication and disaster preparedness prior to future emergencies 	Quarterly reports on economic performance Monthly implementation progress reports from each implementing agency to the CC CC quarterly monitoring and reporting	(from Objectives to Goal) <ul style="list-style-type: none"> • Damage to infrastructure from Hurricane Georges has had a negative impact on economic growth. • Lack of preparedness for natural disasters has had a negative impact on the environment and has worsened the condition of the country's poor.
Outputs: 1. Critical imports financed with quick-disbursing funds 2. Civil Works for reconstruction completed	Output Indicators: <ul style="list-style-type: none"> • Degree to which quick-disbursing funds are disbursed on schedule • Degree to which civil works are completed on schedule. 	Disbursement reports from Central Bank Monthly implementation progress reports from each implementing agency to CC	(from Outputs to Objectives) <ul style="list-style-type: none"> • That adequate technical standards are used for civil works • That national emergency management agencies

3. National emergency management agencies adequately equipped, staffed and trained	<ul style="list-style-type: none"> Technically qualified staff in adequately equipped emergency management agencies, with clear roles and responsibilities. 	<p>Quarterly reports from CC to the Bank</p> <p>Action Plan to strengthen institutional capacity of national emergency agencies</p>	have sufficient authority to take leading role in disaster preparedness and response
Project Components/Sub-components: (see Annex 2 for project description) A. Imports B. Reconstruction & Mitigation 1. Roads & Bridges 2. Irrigation 3. Electricity 4. Strengthening Emergency Preparedness and Response C. Project Implementation Support	Inputs: (financing for each component) US\$60 million US\$64.1 million US\$32.1 million US\$15.0 million US\$9.3 million US\$7.7 million US\$1 million	<p>Monthly progress reports from Central Bank to CC</p> <p>Monthly progress reports from sectoral ministries and CDE to CC</p> <p>Quarterly reports from CC to the Bank</p>	<p>(from Components to Outputs)</p> <ul style="list-style-type: none"> Sufficient counterpart funding is available There is adequate capacity in the construction industry and contractors are well supervised Government commitment and resources are sufficient to staff and equip national emergency management agencies appropriately