

SECTOR FACILITY PROFILE

HAITI

DECEMBER 15, 2004

Project name:	National Program of Flood Early Warning		
Project number:	HA-L1005		
Project team:	Leader: Caroline Clarke (RE2/EN2); other members: Denis Corrales (COF/CHA), Juan Carlos Páez (COF/CDR), Ana Maria Linares (RE2/EN2), Javier Jiménez, (LEG/OPR2), Ophélie Chevalier (consultant) and Eliana Smith (RE2/EN2).		
Borrower:	Republic of Haiti		
Executing agency:	Ministry of Interior, though the Civil Protection Directorate, in collaboration with the Ministry of Agriculture, Natural Resources and Rural Development		
Financing plan:	IDB:	US\$5.0 million	
	Local:	<u>US\$0.5 million</u>	
	Total:	US\$5.5 million	
	Principal Mission (analysis)		First quarter 2005
	Approval		Second quarter 2005

I. CURRENT SITUATION

A. Eligibility of the proposed program under the Sector Facility for Disaster Prevention

- 1.1 The Sector Facility provides fast-track support to address problems of a sectoral or cross-sectoral nature. The emphasis is on pre-defined low-cost activities, characterized by relatively high impact, high sector relevance and urgency, less complex preparation, and rapid execution. The Facility for Disaster Prevention assists countries to take an integrated approach to reducing and managing their risk of disasters, and specifies five areas eligible for Facility financing: (i) hazard, vulnerability and risk identification including forecasting; (ii) mitigation to reduce vulnerability, (iii) preparedness to enhance a country's readiness to cope quickly and effectively with an emergency, (iv) risk transfer measures to spread financial risks over time and among different actors, and (v) establishing effective national systems for risk reduction. Special consideration is given to operations that have a high demonstration potential and that prepare countries to launch larger scale national risk reduction programs.
- 1.2 The present operation is proposed for financing under the Disaster Prevention Facility, as it meets these eligibility criteria. The national flood early warning system proposed for Bank support (paragraphs 3.3-3.4) corresponds to the areas eligible under the Prevention Facility, namely items (i), (iii), and (v) above. The equipment for the hydro-meteorological observation network and for the communication system is mature technology with a proven track record in the region, making it appropriate for the sector facility financing. These activities are a subset of those identified as urgent priorities for the sector by the Government, in their National Disaster and Risk Management Plan and

agreed within the *Interim Cooperation Framework 2004 – 2006 (ICF)*.¹ During the international donors conference on Haiti in July, the Bank, UNDP, and the World Bank pledged to support the improvement of the country's disaster and risk management framed in the ICF. Together with UNDP and the World Bank support (paragraphs 1.8-1.9), the Bank financing will provide the country with the basic elements of a national disaster risk management program.

B. Disasters and risk management in Haiti

- 1.3 In recent decades, Haiti has endured recurrent political instability and has presented a panorama of persistent poverty, and an accelerated degradation of the environment and natural resources. Together these have led to increasing vulnerability and growing damages associated with natural hazards. The country is highly exposed to events, such as hurricanes, flooding, drought, and earthquakes. During the 20th century, more than 16 hurricanes, 25 floods, 7 droughts and a devastating earthquake hit Haiti. Hurricane Georges in 1998, killed 200 people and severely disrupted economic and social life. In the last two years alone, the Bank has provided five emergency technical cooperation grants (\$50,000 each) for humanitarian assistance: one in 2002 for flooding; two in 2003 for drought and flooding; and two in 2004 for flooding and Hurricane Jeanne.
- 1.4 2004 has been a devastating year for Haiti. The floods in May, followed by the consecutive storms/hurricanes in September (Frances, Ivan, and Jeanne), have killed more than 4,000 people. No estimate of economic impact and reconstruction needs for Haiti has been formally conducted yet, but the need to build Haiti's capacity to reduce the possibility of such impacts and to manage the emergency and recovery is dramatically evident. Having to recover from these disasters is likely to require considerable financial and administrative resources, which could set back the timely implementation of the ICF.
- 1.5 The institutional capacity for disaster and risk management is divided among various institutions of which, the Civil Protection Directorate, under the Ministry of Interior and Regional and Local Development, the Ministry of Agriculture, Natural Resources and Rural Development, and the *Unité de Télédéttection et de Système d'Information Géographique* of the Ministry of Planning and External Cooperation are the most relevant for this operation. With the exception of the latter, these institutions share weak institutional foundations (scarce qualified staff, limited technical equipment, lack of adequate procedures and systems, and generalized budgetary constraints) which severely restrict their current effectiveness. Their capacity to undertake new activities will need the support of appropriate enhancement mechanisms and institutional strengthening.
- 1.6 **Bank experience.** In the time since Hurricane Georges, the country, with modest Bank support, has embarked on a process of improving its capacity to manage disasters as well as its risk. The Bank's technical assistance during 2001 – 2002 helped the country to analyze the challenges as well as their capacity to reduce probable losses from natural hazards and to improve their readiness to respond to disasters. In addition to an intensive training program for government personnel and a diagnosis of institutional risk management capacity, the TC also financed a complete logical framework exercise. This

¹ The ICF is the framework agreement for national and international efforts to support the country's move away from economic and political crisis towards development. It will be in force over the next two years, when a newly elected government and legislative body are in place.

training and logical framework exercise provided the basis for the *National Plan for Risk and Disaster Management*, as well as helped to identify activities needed to put the National Plan into operation (Action Plan, 2002), both activities supported by UNDP. The analysis and logical framework exercise, then, also underpin the present set of Government priorities, guiding the proposed financing from the World Bank, UNDP and the Bank.

- 1.7 Haiti's National Plan was developed through a process that promoted inter-institutional cooperation in risk reduction and disaster preparedness, initiated a process towards decentralizing risk management capacities to local levels and strengthened preparedness capabilities (emergency operations center and the Civil Protection Directorate). The Plan also engaged various international cooperation agencies and NGOs. For the last two years, however, the Bank's follow-on support to Haiti for risk management has largely been on hold, and the initial gains in terms of risk management training and institutional capacity has faltered with the intervening conflict situation (specially, the Ministry of Agriculture has had staff turn-over and are without office space and equipment due to a recent fire).
- 1.8 **Coordination with Other Donors.** With the National Disaster and Risk Management Plan, the Government has a tool for engaging international cooperation agencies that are interested in supporting the country's risk management efforts. Presently, the Bank is coordinating closely the design of the present operation with the World Bank and UNDP, the principal financier and technical assistance provider respectively, for the Government's risk management program. A joint mission with the World Bank and UNDP was originally planned for early September, when Hurricane Ivan intervened. Tropical Storm Jeanne subsequently swept the island September 18, further postponing the mission as the country's focus once again shifted to emergency response. In October, travel to Haiti was suspended due to the security situation.
- 1.9 Finally in early November, the Haitian authorities and UNDP met with the World Bank in Washington as well as with the Bank project team to discuss the proposed operations. The World Bank proposes the broadest financing package to support Haiti's national disaster and risk management program: a US\$12 million program (60% credit, 40% grant), with Board approval expected by mid-January 2005.² This includes US\$2.5 million to finance reconstruction in areas recently affected. Around 50% of the operation will finance risk identification and mitigation activities at the community level. Another \$500,000 will finance technical assistance to prepare and implement an awareness campaign, create building norms for public buildings and other infrastructure, and to conduct a general environmental assessment and vulnerability study. The remainder is aimed at strengthening disaster management capacity of the Civil Protection Directorate, the Permanent Secretariat for Risk and Disaster Management, and the Emergency Operations Center.
- 1.10 The Bank's proposed financing for a national flood early warning system is deliberately focused on a single component of Haiti's national program that fills an important gap left by World Bank financing. UNDP will continue to provide direct technical support to the

² The World Bank team traveled to Haiti the week of November 8 to appraise their loan.

Civil Protection Directorate to support the implementation of the National Disaster and Risk Management Plan. Assistance in the preparation of the legal framework, including a new national law and National Mitigation Plan is envisioned.

- 1.11 Coordination with the UNDP and the World Bank during project preparation will continue during project implementation. Regular tripartite meetings are envisioned to monitor progress in the overall implementation of Haiti's national disaster and risk management program and to share information related to the execution of each project, consulting assignments, documents prepared, etc. The execution arrangements for the Bank financing will be independent of those of the World Bank and other donor financing in order to minimize bottlenecks while maximizing coordination.

II. COUNTRY AND BANK STRATEGY

- 2.1 With the financing from the World Bank, UNDP and the Bank, Haiti aims to put into practice the priority elements of their *National Disaster and Risk Management Plan*. The objective of the risk management plan is “to act on the causes and factors that generate the state of risk in order to reduce the possibility of disasters; and to strengthen the response capacity to meet needs at all levels, central, departmental, communal and local, in the case of disasters.” To meet these broad objectives, the Plan outlines the institutional arrangements – a network of participating institutions with functions and responsibilities in risk management (the “System”). – as well as the three principal programs at the national and local levels. To orient the implementation of the National Plan, the government prepared an Action Plan that lays out activities and responsible institutions for priority areas of work. The essential items of the National Disaster and Risk Management Plan and its Action Plan are included in the *Interim Cooperation Framework 2004-2006 (ICF)*.
- 2.2 Through the ICF, the Bank expressed its agreement with two principles of direct relevance for the present operation, namely: (i) Institutional strengthening and capacity building for program execution will accompany the ICF; and (ii) coordination and donor resources will contribute to the successful implementation of the ICF. Both these principles represent important challenges for the present operation.
- 2.3 This approach to establishing risk management, and incorporating it within the country's transition strategy for 2004-2006, corresponds directly to the strategy detailed in the Transition Strategy for Re-engagement (GN-2212-2, paragraphs 4.4 and 4.8) approved in September 2003 and the Bank's Transition Strategy II: 2004 – 2006 (under preparation).
- 2.4 The present operation is consistent with the Bank's Policy on Natural and Unexpected Disasters (OP-704), which puts disaster prevention and mitigation within the development vision of the Bank. The policy underscores the priority of building risk management capacity in the region and stipulates that the analysis and management of risk will be mainstreamed in the Bank's lending operations. OVE's recent evaluation of the Bank's policy and operational practice related to natural disasters (documents RE-292 and RE-292-1) stressed the Bank's role in helping countries to reduce preventable losses due to disasters and to mitigate risks that disasters pose to the effectiveness of Bank's own development assistance.

III. OBJECTIVES AND PROJECT DESCRIPTION

A. Objectives

- 3.1 The goal of the proposed project is to support implementation of the initial stage of the Government's National Disaster and Risk Management Plan. Specifically, the Bank financing seeks to provide the country with the capacity to identify and better manage their flood risk, with special emphasis on reducing the loss of lives and livelihoods due to disaster events.

B. Activity areas

- 3.2 The present operation will finance a national system for flood early warning, an essential component within the Government's Plan, and a high priority within the *Interim Cooperation Framework 2004-2006*. Special care will be taken to ensure that the activities to be financed meet the Prevention Facility criteria of being low-cost, having a relatively high impact and demonstration potential and showing readiness for rapid execution. These activities will be implemented within a period of 36 months.

- 3.3 Specifically, the operation will finance three sets of activities for the national system for flood early warning:

- a) Equipment and related services: will be procured in the three principal components of a flood early warning system. (i) *Hydro meteorological monitoring and forecasting*: an observation network of basic meteorological (with equipment to measure precipitation, evaporation and wind) and hydrological stations (with equipment to measure river level and flow) will be installed throughout the country in areas of high risk and social and economic interest. These stations will be self-sufficient in energy use, require minimal maintenance, and provide continuous monitoring with automated (real-time) connections to a central processing (analysis, forecasting and alert) station. Any computers and software necessary to process the data, including production of forecasting products (hydrological models and scenario building using digital terrain models and hazard maps) will be included. (ii) *Communication*: a basic communication system for disseminating real-time alerts to the Civil Protection, as well as specific warning messages to the general population. The system is likely to include a dedicated radio system between the national weather service and the Civil Protection and a backup system (to be evaluated), as well as protocols for dissemination through commercial radio. (iii) *Preparedness and response to early warning*: a basic set of activities at the local level for alerting the population and assisting their evacuation. These may include sirens, radios, and the design of evacuation routes and protocols.

The component will also finance technical assistance for the supervision of the construction/installation and material delivery related to the hydro-meteorological monitoring and alert systems.

The project team will explore during the mission the possibility of financing a pilot project to test the use of the hydro-meteorological monitoring and risk identification capacity for developing products to support longer-term mitigation uses, such as agriculture land use and planning.

- b) Institutional strengthening. This component will finance technical assistance to build up the institutional capacity of the principal agencies participating in the implementation of the national system for flood early warning (mainly the Civil Protection Directorate and the Ministry of Agriculture, Natural Resources and Rural Development), so that they can run such a program and ensure its objective of improving life safety. Specifically, short term technical assistance will likely be for activities to establish procedures and systems for detection and warning, hydrological and meteorological simulation, inter-agency coordination, and for communication with the public, as well as for the development of management plans (including programming and budget), the evaluation of flood alert drills, and the prioritizing of training resources. Training of key actors on the use of the equipment and in the form of topic-specific workshops such as, instrumentation and their maintenance, informatics and telecommunications, dissemination and client services will also be part of the institutional strengthening. In addition, in order to promote the creation of institutional capacities, this component may finance a long term advisor at the Ministry of Agriculture to provide on-the-job training during the first years of the flood warning system's operation. Loan funds will be used to pay for this position on a decreasing scale so that at the end of project execution the government is in a position to absorb its cost.
- c) Awareness and education campaign. This component will finance a national level awareness campaign and an education program geared towards ensuring the population's adequate response to warnings and alerts. This will include the development of communication materials (videos, radio and television spots) as well as their dissemination in a national campaign.

IV. EXECUTION PLAN AND INSTITUTIONAL ASPECTS

- 4.1 Principles of execution. During the next mission the project team will work with local authorities on defining the details of the execution mechanism. Recognizing the limited execution capacity of the DPC, the execution mechanism that will be selected for this operation will have to meet the following basic principles: (i) the DPC should not be responsible for the procurement of all goods and services. Possible arrangements to support the DPC in the technical and administrative processes of procurement include contracting a private firm, a specialized international agency or a government institution specialized in project execution. (ii) Procurement should be simplified and organized in packages that minimize the number of contracts to be issued by the DPC in order to ensure efficient execution. (iii) The project should encompass the strengthening of technical capacity both in the DPC and at the Ministry of Agriculture to ensure project sustainability.
- 4.2 Executing Agency and Project Implementation Unit. The executing agency will be the Ministry of Interior, through the Civil Protection Directorate (DPC), which will house the Project Implementation Unit (PIU). The PIU will likely have a project director, a technical expert and support staff.
- 4.3 Ministry of Agriculture, Natural Resources and Rural Development (MARNDR). The DPC would work closely with the MARNDR which, through the National Weather

Service and the National Water Resources Service, is currently in charge of activities related to monitoring and forecasting (activities (i) and (ii) of Component (1)).

- 4.4 Possible collaboration with other agencies. Other public and private agencies with corresponding core responsibilities, such as the Ministry of Environment, UTSIG (*Unité de Télédétection et de Système d'Information Géographique*), municipal authorities and the regional and local emergency committees may be considered for implementation of specific program activities.

V. SOCIAL AND ENVIRONMENTAL ISSUES

- 5.1 The present operation is expected to provide basic capacity to track hydro-meteorological hazards and to alert the population in real time of imminent flooding, allowing timely evacuation. The operation is expected to directly reduce lives lost due to disasters as well as to contribute to environmental management capacity in the country, by equipping the country with hazard identification, monitoring and alert system. No major works are envisioned. On the social side, the challenge for this operation is to incorporate good practice in communication (message and technology) to reach at-risk populations, which are most often from the poorest stratum of society. Recent operations for the Dominican Republic and Central America developed public education and awareness campaigns to reach these populations. The implementation of the present program will incorporate the lessons learned from this successful experience in the design of the outreach process and campaign materials.
- 5.2 The program qualifies for PTI under the headcount classification criterion given that 76% of the population of Haiti is considered poor and 56% is considered extremely poor, according to a poverty line equivalent to the poverty line used by the Bank.³ The direct beneficiaries of the program will be the whole population of Haiti and, in particular, those living in high risk areas which tend to be among the poorest.

VI. RISKS

- 6.1 This operation faces two types of risks: institutional and political. On the institutional, the DPC does not appear to have sufficient technical or operational capacity to execute the project without support. In addition, its procurement and financial management capacities also present serious weaknesses. In order to mitigate these problems, the project proposes a strong technical assistance component coupled with an execution mechanism that will be based on the participation of a private project management firm, an international specialized agency or a government institution dedicated to project execution. Moreover, the execution mechanism will be selected on the basis of compliance with the principles of execution that have been drawn in order to ensure efficient execution (see par. 4.1).
- 6.2 As for the political risk, Haiti remains vulnerable to civil unrest and instability. However, the government appears to be fully committed to the implementation of the National Disaster and Risk Management Plan of which, the flood early warning is a component.

³ Poverty in Haiti, Pal Sletten and Willy Egset, 2001.

VII. PREPARATION STATUS AND ACTION PLAN

- 7.1 The present operation is included within the framework of the Bank's proposed response within the Interim Cooperation Framework (the Bank's *Transition Strategy II: 2004 – 2006*, under preparation), and outlined in the pledging statement that the Bank delivered at the international donors conference on Haiti, July 20, 2004. The Project Team has completed an initial round of consultations with the Haitian authorities, the World Bank and the UNDP regarding the overall program to be financed, and has identified the present set of activities for Bank financing. Based on the clear specification of the program priorities outlined in the *National Disaster and Risk Management Plan*, its *Action Plan* and the *Interim Cooperation Framework 2004-2006*, the project team recommends that there is adequate basis for the present operation to be prepared under the Disaster Prevention Facility.
- 7.2 Next steps. Early in 2005, consultants from the World Meteorological Organization (WMO) expect to travel to Haiti to evaluate the capacity and specific equipment and technical assistance needs for a hydrometeorological system. The Bank Team will coordinate with the Haitian authorities and the WMO to define the components of the national system for flood early warning to be considered for Bank financing. In particular, the amount of the loan will be carefully evaluated, with the outcome likely to be less than the US\$5 million permitted under the Sector Facility.
- 7.3 The date of the project's principal mission is still to be decided, depending on resolution of the current travel restrictions to Haiti. It is presently estimated for January 2005, shortly after the WMO mission. In the meantime, the project team will confirm with the Haitian Government the objectives and program of activities that will be financed. The project team will also analyze the World Bank- financed operation, with special attention to their execution plan and institutional arrangements for the implementation of the Government's Program. During the Bank's mission expected in January 2005, the team will agree the proposed program, including the activities, calendar, budgets and indicators to be included in the Loan Document.
- 7.4 The Project Team will process the operation under the Sector Facilities guidelines that provide for fast track processing, aiming for approval in the first quarter of 2005.
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Documents in the Project File

- Plan National de Gestion des Risques et des Désastres, République d’Haiti, Ministère de l’Intérieur et des Collectivités Territoriales, Direction de la protection civile, février 2001.
- Plan d’Action du Plan National de Gestion des Risques et des Désastres, République d’Haiti, Secrétariat permanent de Gestion des Risques et des Désastres, juillet 2004.
- Interim Cooperation Framework 2004-2006, Republic of Haiti, July 2002.
- Diagnostique Institutionnel-Secteur Hydrométéorologique, Programme d’Appui à la Mise en Oeuvre d’un Plan National de Gestion du Risque et Prévention des Désastres, Coopération Technique Non Remboursable, ATN/SF-7289-HA, Claudia Solera, Port-au-Prince, octobre 2002.
- Diagnostique Institutionnel dans le Cadre d’un Projet de Gestion de Risques dans la République d’Haiti, Programme d’Appui à la Mise en Oeuvre d’un Plan National de Gestion du Risque et Prévention des Désastres, Coopération Technique Non Remboursable, ATN/SF-7289-HA, Feliciano De Santis, 2002.
- Application de la méthodologie du Cadre Logique à la Conception et Exécution des Projets, Cours-Atelier de formation, BID, Avril 2003.
- Project Profile: Haiti – Emergency Recovery and Disaster Management Project, The World Bank, August 2004.
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- Status of Hazard Maps, Vulnerability Assessments and Digital Maps: Haiti Country Report, The Caribbean Disaster Emergency Response Agency (CDERA), October 2003.
- Terms of Reference for a consultancy in Meteorology and Hydrology for Haiti, World Meteorological Organization, October 2004.