



Haiti Earthquake PDNA: Assessment of damage, losses, general and sectoral needs



**Annex to the Action Plan for National Recovery
and Development of Haiti**

Foreword

We are pleased to present you with the results of the post-disaster needs assessment conducted in Haiti from February 18 to March 24 2010, at the request of and under the direction of the Government of the Republic of Haiti, with the technical support of the UN, the IDB, the ECLAC, the World Bank and the European Commission.

The earthquake on January 12, 2010 has caused an unprecedented situation in Haiti with enormous repercussions affecting all sectors of society, well beyond the areas directly affected by the catastrophe. Over 200,000 lives were lost. Hundreds of thousands of Haitians have been left homeless and have fled the affected area to find refuge in the provinces, adding to an economic situation which was already difficult in these regions.

In order to respond to a catastrophe of this scale, this assessment has been designed to go further than traditional post-disaster assessments. The objective has been to lay the foundations for a fresh start in the country's development efforts, as well as to reconstruct the damaged areas and contribute to a long-term national strategic development plan, in order to begin rebuilding Haiti.

This assessment was carried out under the supervision of the High Level Management Team led by the Prime Minister and including the following members: the United Nations Humanitarian/Resident Coordinator, a representative of the United Nations Special Envoy for Haiti, the World Bank Mission Leader, the Resident Representative of the IDB, three G11 representatives, and the European Union Head of Delegation. The Management Team has given strategic advice and provided the necessary resources throughout the process.

In addition to the damage and loss assessment which usually constitutes the central part of this type of assessment, an analysis of short-term rehabilitation needs and an analysis of the needs to rebuild the country have led to costed assessments for eight essential themed sectors: governance, the environment, disaster risk management, social sectors, infrastructure-related sectors, the production sector, a macro-economic analysis, and cross-cutting sectors (youth, gender, vulnerable persons, employment).

The government led each of these themed teams, which had the responsibility of collecting and collating information on damage, losses, the impact of the earthquake on human development, and post-disaster needs for reconstructing and rebuilding the country.

The work accomplished by the teams of experts now enables us to present (i) a multi-sector review of damage and losses incurred following the earthquake on January 12, 2010 and an estimation of the impact of the earthquake on each themed sector; (ii) an action plan for the identification of needs for recovery and rebuilding the country in the very short term (6 months), short term (18 months), medium term (3 years) and long term (10 years).

Jean Max Bellerive
Prime Minister
Port-au-Prince
March 2010

Acknowledgements

This Post-Disaster Needs Assessment (PDNA) report was prepared by a joint team composed of representatives of the Government and members of the International Community, under the direction of the Government of the Republic of Haiti.

Coordination was provided by a coordination team composed of representatives of the Government, the World Bank, the Inter-American Development Bank, the United Nations system, the European Commission and the Economic Commission for Latin America and the Caribbean.

Over two hundred national and international experts worked in eight themed teams: governance, production, social sectors, infrastructures, regional development, the environment and disaster risk management, cross-cutting themes and a macro-economic analysis.

The PDNA Coordination Team wishes to acknowledge the strong, positive support of bilateral donors, who have exhibited great interest in the exercise, as well as the technical and financial partners: Germany, Canada, the United States of America, Great Britain, Italy, Japan, Norway, the Dominican Republic, Sweden, Switzerland, the International Monetary Fund and the International Financial Corporation together sent 35 experts in agriculture, civil society affairs, disaster risk management, education, energy, the environment, governance, health, housing, trade and industry, telecommunications, regional development, and urban infrastructure to work with their counterparts from Haitian and international agencies on the arduous assessment of damage, loss and needs in these important sectors.

In addition to identifying and sending experts, the bilateral donors also provided financial support and food supplies. Furthermore, they exchanged current and previous assessments and reports which were of invaluable help to the themed teams.

The bilateral donors showed great interest in being kept informed of the progress of the preparation of the PDNA and its final report, expressing the desire that the PDNA supply them with sufficient themed information to be able to coordinate in such a way as to guarantee that the needs in Haiti are fully covered.

In particular, the government of Haiti, the World Bank, the Inter-American Development Bank, the European Union and the United Nations wish to thank in the governments of Sweden, Switzerland and Luxembourg and the European Commission for their financial support for the PDNA and their contribution to the Global Facility for Disaster Reduction and Recovery (GFDRR).

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The Appendices mentioned in the report will be available online only.

Haiti – Summary of the PDNA

Damage, losses, and needs assessment by sector

The January 12 2010 earthquake and its impacts

(Working document)

Prepared by the Government of the Republic of Haiti
with support from the International Community

On January 12 2010, just before 17:00, an earthquake of magnitude 7.3 on the Richter scale shook Haiti for 35 seconds. It was the most powerful earthquake to hit the country in 200 years. The hypocentre of the earthquake was close to the surface (at a depth of 10 km) and its epicentre was close to the town of Léogâne, around 17 km south-west of the capital Port-au-Prince in the Department of Ouest. The effects were felt in the Departments of Ouest, Sud-est, and Nippes. The Port-au-Prince metropolitan area (including the communes of Port-au-Prince, Carrefour, Pétionville, Delmas, Tabarre, Cité Soleil, and Kenscoff) suffered extremely severe damage. Eighty percent of the town of Léogâne was destroyed.

The earthquake has created an unprecedented situation, affecting the country's most populous area as well as its economic and administrative centre. The situation is all the more tragic because for three years the country had been experiencing a tendency towards stabilization of the socio-political situation, of security, of economic growth, and the beginnings of an improvement in people's living conditions.

Human Impact

The human impact is immense in a country marked by a high incidence of poverty (prior to the earthquake, around 67% were living on less than US\$ 2 a day). Around 1.5 million people, representing 15% of the population, have been directly affected. Over 220,000 people lost their lives and over 300,000 were injured. Thousands of people are in need of psychological support or psychosocial supervision. Around 1.3 million people are living in temporary shelters in the Port-au-Prince metropolitan area and over 500,000 people have left the disaster areas to seek refuge in the rest of the country. The result is an exacerbation of the difficulties that already existed in gaining access to food and basic services. By striking at the very heart of the Haitian economy and administration, the earthquake had an acute effect on the human and institutional capacity of both the public and the private sectors, and of international technical and financial partners and certain non-governmental organisations (NGOs).

Impact on infrastructure

There has been massive infrastructure destruction. Some 105,000 homes have been completely destroyed and more than 208,000 damaged. Over 1,300 educational establishments, and over 50 hospitals and health centres, have collapsed or are unusable. Part of the country's main port is not operational. The President's Palace, Parliament, the Law Courts, and most of the Ministry and public administration buildings have been destroyed.

Environmental impact

At a time when environmental indicators were already in the 'red' zone, the earthquake added to considerably to the pollution, nuisances, and risks that were already afflicting the people in the disaster zones, and increased the pressure on the environment, natural resources, and the country's protected areas, thereby placing the people of Haiti in conditions of extreme vulnerability.

Damage, Losses, and Needs

In order to prepare estimates of damage, losses, and needs, around 200 national and international experts worked in teams covering eight themes: governance, environment and risk and disaster management, social sectors, infrastructures, production, cross-cutting themes, regional development, and macro-economic analysis.

Estimating damage, losses, and needs

Damage, losses, economic impact, and needs were estimated in the following manner:

- **Damage** is estimated at the replacement value of physical assets wholly or partly destroyed, built to the same standards as prevailed prior to the disaster;
- **Losses** are estimated from the economic flows resulting from the temporary absence of the damaged assets;
- **From the damage and losses, the disaster's impact on** economic performance, employment, and poverty **can be assessed**;
- **Needs** take into account the activities of recovery, reconstruction, and setting up the Haitian State again.

The total value of the damage and losses caused by the January 12 2010 earthquake is estimated at US\$ 7.804 billion¹, equivalent to slightly more than the country's GDP in 2009. In fact, in the 35 years that the DALA method for estimating damage and losses has been employed, this is the first time the cost of a disaster is so high compared to the size of a country's economy.

Most of the damage and losses have been suffered by the private sector: US\$ 5.722 billion, i.e. 70% of the total, while the public sector share amounts to US\$ 2.081 billion, i.e. 30%.

The value of physical assets destroyed – including amongst others housing units, schools, hospitals, buildings, roads and bridges, ports and airports – has been estimated at US\$ 4,302 billion, i.e. 55% of the total effects of the disaster. The variation in economic flows (losses of production, reduction in revenue, loss of jobs and wages, increases in production costs, etc.) amounts to US\$ 3.561 billion, i.e. 45% of the total).

Housing is undoubtedly the sector most affected by the earthquake, given that the total damage amounts to US\$ 2.300 billion. The housing sector thus represents approximately 40% of the effects of the earthquake. This figure includes the value of different types and standards of housing which were destroyed, the value of houses which were partly destroyed, and household goods. It should be further stated that losses for housing are estimated at US\$ 739 million, and involve the costs of providing temporary shelters, the cost of demolition, and the value of rental losses. The other sectors, in descending order of importance of the effects suffered, are commerce (damage and losses of US\$ 639 million, i.e. 8% of the total), transport and public administration buildings (US\$ 595 million each) and education and health (with an average of 6% of the total).

The total value of needs above and beyond reconstruction amounts to US\$ 11.5 billion over three years and breaks down as follows: 52% for the social sectors; 15% for infrastructure (including housing); 11% for the environment and risk and disaster management; and the rest between the production sectors, governance, and the cross-cutting aspects. (These results are only the preparatory stage for the New York fund-raising conference planned for March 31 2010).

¹ The sum given as the total value of damage and losses differs from the arithmetic sum of the assessments per sector, as duplicated accounting has been eliminated. A standard exchange rate of 42 Gourdes = US\$ 1 has been used.

Table 2: Summary of damage and losses

Theme/Sub-theme:	Damage			Losses		
	Public	Private	Total	Public	Private	Total
Environment & disaster risk management	3.00	0.00	3.00	321.40	1750.00	496.40
Social sectors	153.80	805.40	959.40	197.80	355.60	553.30
Water and sanitation	20.90	13.10	34.00	8.40	193.00	201.40
Health	94.70	101.70	196.40	187.70	86.10	273.70
Education	38.20	395.60	434.00	1.70	41.50	43.20
Food safety and nutrition	0.00	295.00	295.00	0.00	35.00	35.00
Infrastructure	628.1	2 538.60	3 166.7	774.2	520.60	1294.8
Housing	0.00	2333.2	2333.20	459.40	279.30	738.70
Transport	188.50	118.6	307.10	91.60	197.50	289.10
Telecommunications	66.00	28.00	94.00	24.00	22.00	46.00
Energy	20.80	0.00	20.80	37.23	0.00	37.23
Urban and community infrastructure	352.80	58.80	411.60	162.00	21.80	183.80
Production sectors	3.10	394.00	397.10	0.00	933.30	933.30
Agriculture	3.10	49.90	53.00	0.00	96.00	96.00
Industry	0.00	74.60	74.6	0.00	267.70	267.70
Retail	0.00	148.70	148.7	0.00	490.60	490.60
Finance and banking	0000	98.20	98.2	0.00	0.00	0.00
Tourism	0.00	22.60	22.6	0.00	79.00	79.00
Total	781.80	3,738.00	4,526.2	1,293.4	1,984.50	3,277.8

Note: These estimates have not yet been arbitrated, prioritized or validated by the government.

Besoins financiers de relèvement et de reconstruction sur la base des groupes de travail sectoriels du PDNA – estimation provisoire (cf. tableau 3).

预览已结束，完整报告链接和二维码如下：

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