

DIPECHO

Hospital Vulnerability Reduction Demonstration Project

Final Report

**Operation Contract:
ECHO/TPS/1998/01020**

**Office of Caribbean
Programme Coordination,
PAHO/WHO,
Barbados.**

August, 2000.

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DIPECHO Hospital Vulnerability Reduction Demonstration Project

Narrative Final Report in accordance with Document No 4 of ECHO
for the period ended 30 August 2000.

1. PROJECT IMPACTS

1.1 Timing of Project

The Project followed a period during which several severe hurricanes affected the Eastern Caribbean emphasising the vulnerability of these island states which mostly rely on a single referral hospital. The project also commenced implementation at the end of the International Decade for Natural Disaster Reduction (IDNDR) and was thus able to reinforce in a practical way the IDNDR message of preparedness and mitigation.

Earlier studies on the vulnerability of hospitals had been undertaken by PAHO in St Lucia (1993 and 1996) and Grenada (1996) as well as in St Vincent and Barbados. The present project follows directly from the 1996 studies in St Lucia and Grenada.

There is evidence that the Ministry of Health in St Lucia had commenced implementation of the 1993 recommendations and welcomed the further assistance provided by the present project.

The Minister of Health in Grenada remarked that before the present project there was very little awareness and conscious concern about the impact of natural hazards on health-care facilities in Grenada. The Duncan Ward retrofitting and the June workshop had brought these issues to the fore.

1.2 Demonstration Projects

The approach taken allowed for the development of practical examples of relatively low cost measures that will reduce the vulnerability of health facilities. These can now serve as examples and the opportunity was taken at the Workshop held in Grenada in June to visit the General Hospital and illustrate the measures taken to the participants from the Eastern Caribbean.

1.3 In-country Capacity

The Project provided an opportunity to develop capacity in the Project countries (Grenada and St. Lucia) through the recruitment of local engineers who worked under the guidance of a Principal Consultant with considerable experience in this field. This expertise is now available in the countries and for example the Ministry of Health in Grenada is already considering an ongoing role for the Project Engineer in the redevelopment of the General Hospital.

1.4 Terms of Reference for Consultants and Standards

As part of this Project the Principal Consultant prepared model Terms of Reference for Consultants and Standards with particular reference to natural hazards in the Eastern Caribbean. The use of these documents will be promoted particularly in those countries undertaking facility redevelopment projects.

This document will also assist in promoting the involvement of independent consultants to review health facility design and construction standards by providing a guide to Ministries of Health and reviewers in monitoring the work of designers.

The document is attached as Annex 1.

1.5 Guidelines for Vulnerability Assessment and Reduction in the Caribbean

This booklet promotes the mitigation approach among non technical staff and its use will facilitate their negotiations to make the facilities safer. This has been widely distributed and is available on the Internet (www.pahocpc.org). The two training Workshops were well received and follow ups have already been requested by two countries.

2. GENERAL INFORMATION

2.1 Humanitarian organisation's name:

Pan American Health Organisation
Office of Caribbean Programme Coordination, Barbados

2.2 Operation contract number:

ECHO/TPS/1998/01020

2.3 Title of operation:

Reduction of the Impact of Hurricanes and Earthquakes on the Main Hospitals in Small Island States

2.4 Location of operation:

St. Lucia and Grenada

3. NARRATIVE REPORT

3.1 Objectives of operation:

Contribute to vulnerability reduction of Victoria Hospital (St Lucia) and St

George's Hospital (Grenada)

Demonstrate the process of retrofitting for vulnerability reduction for natural hazards

Widen the mitigation fraternity by the exposure, involvement and training of local engineers in the processes of retrofitting

Document the project for use as case studies in other countries

Promote vulnerability reduction through retrofitting of existing facilities

Promote vulnerability reduction through appropriate design criteria for new facilities

3.2 State of implementation of operation:

3.2.1 Victoria Hospital, St. Lucia

(a) Review of Implementation of the Project

The Local Consultant, Roland Theobalds of CCE, defined an extended the scope of work in order to utilise all the funds available to the Project the scope of work for the project at the Victoria Hospital, St. Lucia. A visit to St. Lucia was made by Mr. Tony Gibbs, Dr. Dana Van Alphen and Mr. David Taylor, Project Officer, PAHO, on Tuesday 20 June 2000 when progress on the work was reviewed and a further visit made by Messrs. Gibbs and Taylor on 17 August 2000. Mr. Roger Bellers, DIPECHO Consultant, visited the work on Saturday, 24 June 2000.

Mr. Theobalds Final Report is attached as Annex 2.

(b) Scope of the Works

The Scope of Work agreed for the Victoria Hospital is as follows:

Former Chest Wing Building: replacement of asbestos roof and windows and external doors.

Laboratory: replacement of windows and fixing of free-standing shelves to walls.

All window replacement will be with impact resistant glass.

The scope has been extended with additional work to be done in the Laboratory to windows, to external doors and to the roof.

The proposed works will reduce the vulnerability of the structure to damage created by the passage of strong wind forces and the possibility of damage and injury during earthquakes.

(c) Progress report

At the time of the visit on 17 August 2000, the work in the Medical (Chest) Ward had been completed and, after inspection of the building in the company of representatives of the Ministry of Health and the Hospital, it was agreed that a certificate of completion would be issued and the area formally handed back to the Hospital.

Further delays had been experienced in the delivery of the windows for Laboratory but work was expected to commence in ten days and be completed by 10 September 2000.

(d) Implementation Time Table

All construction to be completed by 10 September 2000.

3.2.2 General Hospital, Grenada

(a) Review of Implementation of the Project

The Local Consultant, Selwyn Woodroffe of CEP, defined an extended scope of work for the project at the General Hospital, St. George's Grenada in order to utilise all the funds available to the Project.. Mr. Tony Gibbs, Dr. Dana Van Alphen, and Mr. David Taylor, Project Officer, PAHO made a visit to the General Hospital, Grenada on Thursday, 22 June 2000 when progress on the works was reviewed. Mr. Roger Bellers, Consultant evaluating the DIPECHO Project was present for this visit.

Mr. Selwyn Woodroffe's Final Report is attached as Annex 3.

(b) Scope of Work

Following commencement of the work in Duncan Ward, a number of unsatisfactory situations had been found in relation to the condition of the roof timbers, electrical wiring etc. Duncan Ward had therefore become the focus of the Project with extensive renovations carried out there with the aim of making the envelope and basic structure of the building safe

It was therefore agreed that more extensive work would be required on Duncan Ward in order to provide a sound and safe building. The Eye Clinic was therefore removed from the Scope of Work but some relatively minor work in the Laboratory was retained.

(c) Progress Report

At the time of the visit on 22 June 2000 the works had been completed and Duncan Ward was about to be handed back to the Hospital. The work in the Laboratory had also been completed.

(d) Implementation timetable:

Work commenced on site on 29 March 2000 after some delay in relocating patients from the building. Completion was confirmed on 22 June 2000.

3.3 Difficulties encountered in implementation:

In St. Lucia, delays in the delivery of laminated glass windows (from Barbados) has resulted in the non completion of the work in the Laboratory but all other work is completed.

In Grenada all work has been completed.

3.4 Changes to contract of an operational nature:

None.

3.5 State of implementation compared with objectives to be achieved:

Implementation has been in line with objectives and in some areas has exceeded them (see Section 1. Above Impact)

3.6 Recipients: characteristics and number.

Grenada and St. Lucia

3.7 Monitoring:

Tony Gibbs as Principal Consultant and David Taylor as the PAHO Project Officer carried out the monitoring of the work.

3.8 Measures taken under Article 30 of the General Conditions concerning visibility:

A manual for Health Staff promoting approaches to mitigation as used in the Project has been published ("Disaster Mitigation for Health Facilities: Guidelines for Vulnerability Appraisal and Reduction in the Caribbean" PAHO, 2000). This was launched at Workshops held in Jamaica (participants from: Bahamas, Belize and Jamaica) and in Grenada (participants from: Anguilla, Antigua, Barbados, Dominica, Grenada, Montserrat, St. Kitts, St. Lucia, St. Vincent) held 9-10 May and 21-22 June, 2000 respectively. These Workshops which included field visits were well received by the participants and a summary of their evaluations is included as Annex 4.

The booklet has been widely circulated throughout the English speaking Caribbean and is available on the PAHO, Caribbean Programme Co-ordination website (www.pahocpc.org). In addition, the Report prepared by the Principal Consultant, "Terms of Reference for Consultants and Standards" (Annex 1) has been circulated to all Ministries of Health in the Eastern Caribbean.