SOLOMON ISLANDS

NATIONAL SUMMARY REPORT

IDNDR

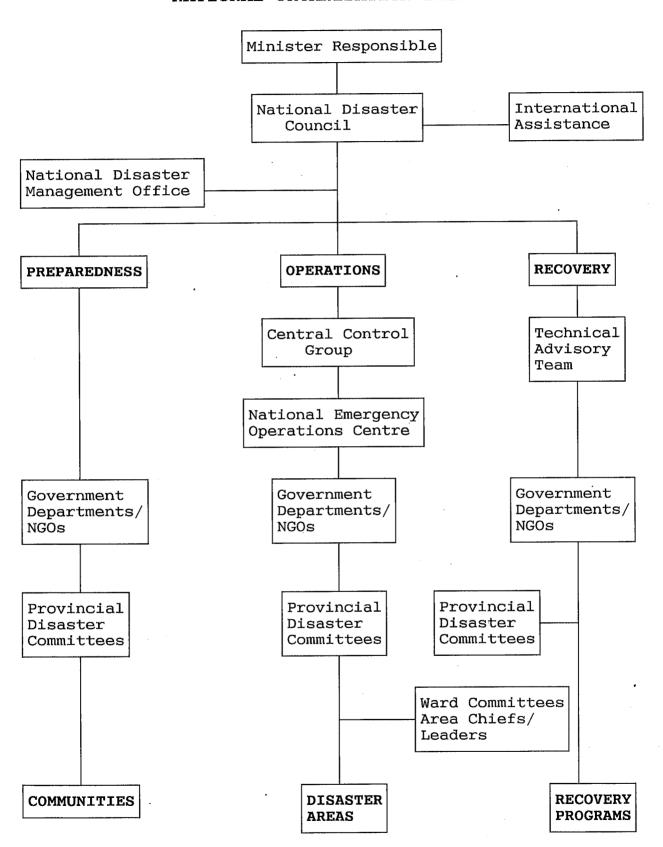
CONTACT:		RICHARD KOHATA CHAIRMAN/PERMANENT SECRETARY NATIONAL DISASTER COUNCIL MINISTRY OF HOME AFFAIRS P O BOX G11 HONIARA	PHONE:	(677)23771 (677)22262 (677)23662 (677)23661 (677)22606	2 2 -
		SOLOMON ISLANDS	TELEX:	NDCHQ66451	
		SECTION A: P	ROFILE		
1.	СОМР	OSITION OF NATIONAL COMMITTEES	(FOCAL	POINT)	
a)	NDC M	EMBERS (IDNDR)			
	Primo Mini: Mini: Mini: Mini: Mini:	stry of Home Affairs e Ministers Office stry of Foreign Affairs stry of Finance stry of Health & Medical Service stry of Transport Works & Util: stry of Post & Communication stry of Provincial Government	ities	Development	(2) (1) (1) (1) (1) (1) (1) (1)
b)	NDC C	O-OPTED MEMBERS			
	Minis Minis Minis Minis Gover Geolo Solon	stry of Commerce Employment & Stry of Education & Training Stry of Natural Resources Stry of Agriculture & Lands Stry of Development Planning Stry of Culture Sports & Tourisment Information Service Department Department Stry Department Mon Islands Meteorology Service Aviation Department	sm artment		(1) (1) (1) (1) (1) (1) (1) (1) (1)
c)	STATUT	TORY AUTHORITIES			
	Solon	non Island Electricity Authorit non Island Broadcasting Corpora non Island Ports Authority	y ntion		(1) (1) (1)

d) <u>NON-GOVERNMENT ORGANISATIONS</u>

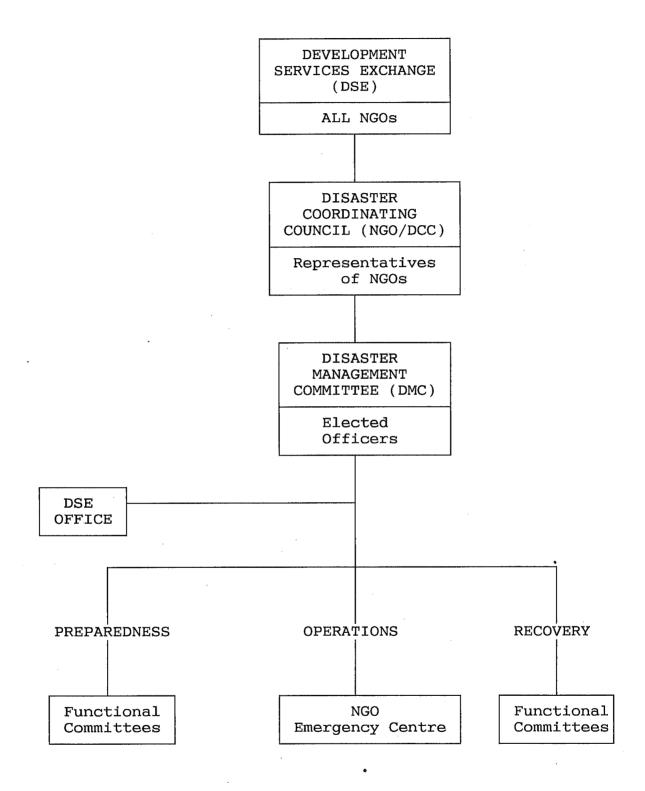
Development Services Exchanges	(1)
Solomon Islands Red Cross Society	(1)
Solomon Island Christian Association	(1)

2. INTERNAL ORGANISATION OF NATIONAL COMMITTEE

NATIONAL ORGANISATION STRUCTURE



NGO ORGANISATIONAL STRUCTURE



3. PREVAILING HAZARDS

TYPE	LOCATION	AFFECTED POPULATION
TROPICAL CYCLONES EARTHQUAKES TSUNAMIS LANDSLIDES FLOODS	WHOLE OF SOLOMON ISLANDS WHOLE OF SOLOMON ISLANDS WHOLE OF SOLOMON ISLANDS GUADALCANAL/MALAITA/MAKIRA GUADALCANAL/MAKIRA/MALAITA ISABEL/CHOISEUL	350,000 350,000 350,000 108,570
VOLCANO	SIMBO/SAVO/KAVACHI/RENNELL	65,000

4. RECENT NATURAL DISASTERS

TYPE	LOCATION	AFFECTED POPULATION	LOSSES
CYCLONE NINA (1992/1993)	TEMOTU/MAKIRA/MALAITA GUADALCANAL/RENNELL AND BELLONA	136,805	SI\$20,881,454 m
CYCLONE TIA (1991)	TEMOTU	13,500	SI\$0.5 m
CYCLONE NAMU (1986)	MALAITA/GUADALCANAL CENTRAL ISLANDS/MAKIRA RENNELL/BELLONA	117,723	US\$100 m
EARTHQUAKES (1977)	GUADALCANAL	31,167	SI\$1,000,000 m
FLOOD (1990)	MAKIRA	3,000	Houses/Food Gardens

5. NATIONAL SOCIO-ECONOMIC CONDITIONS

* Population* Gross-National Product (GNP)* Per Capita IncomeUS\$370

6. AVAILABILITY OF ASSISTANCE TO OTHER COUNTRIES IN THE FIELD OF NATURAL DISASTER REDUCTION

As a developing country with no Technological and Scientific resources, Solomon Islands is very much on the receiving end and has nothing to offer to other countries in regards to Natural Disaster Reduction, except may be through small cash Donations, mostly to close neighbours of the South Pacific Region for emergency relief purposes.

7. INTERNATIONAL ASSISTANCE REQUIRE FOR NATURAL DISASTER REDUCTION

- * An Advisor to NDMO
- * Financial support for a Permanent Building for NDMO
- * Training Needs for Key Officials
- * Financial Assistance for Educational Disaster Awareness Programs
- * Improvement and Up-Grading of our Weather Monitoring and Forecasting Systems.
- * Improvement and Up-Grading of our earthquake/volcanic (Seismic) Monitoring Systems through Training and provision of Hi-Tech Seismic monitoring equipments and facilities.
- * Hazard Assessments and Risk Mapping
- * Disaster Database System

SECTION B: STRATEGIES AND ACTIVITIES

- 1. STEPS TOWARDS ACHIEVING THE THREE MAIN TARGETS (NDMO)
 - (a) Flood and LANDSLIDE HAZARD RISK Mapping for North Guadalcanal have been completed.

Plans have been initiated to extend HAZARD RISK MAPPING of Landslide Hazard in South Guadalcanal and other mountainous Islands of the country.

Risk mapping of Seismic and Meteorology hazards.

(b) The present National Disaster Plan (1987) needs to be Reviewed to cater for the changing needs in the country.

Disaster Planning at the Provincial Level is a major issue that has now been seriously considered by the National Disaster Management Office.

Community Preparedness and Awareness have now been planned jointly by NDMO and Solomon Island Red Cross Society.

Public Awareness through Media is an on-going activity utilising the Services of the Solomon Islands Broadcasting Corporation and is conducted on a weekly basis. Research has also now been started to expand our present Public Awareness through the Video Industry.

School children have now been under consideration as possible targets on our awareness programmes.

Printing of Cyclone information on Telephone Directory, Yearly Calendars, Notice Boards, Pamphlets, Posters etc have been started.

- (C) Solomon Islands Meteorological Services have direct links to NADI (Fiji) and Brisbane (Australia) Meteorology Services.
 - S.I. MET Service is a member of WMO.

STEPS TOWARDS ACHIEVING THE 3 MAIN DECADE TARGETS (S.I. MET SERVICES)

(a) Comprehensive national assessments of risks from natural hazards, with these assessments taken into account in development plans;

Meteorological Hazards in the Solomon Islands include tropical cyclones and severe weather conditions such as droughts and heavy rainfalls.

- (i) Strong and damaging winds
- (ii) Heavy rainfall/flooding/landslides
- (iii) Storm surges
- (iv) Droughts, especially in El Nino years.
- (b) Mitigation plans at national and/or local levels, involving long-term prevention and preparedness and community awareness; and

The Solomon Islands Meteorological Service has long term plans to increase its observing network and establish a National Forecasting Centre by the year 2000. In the past few years, it has improved its services to the public by introducing facsimile and telephone services so that the public can have access to weather information and warnings. These are achieved through pre-recorded information on answering machines and polling facilities of fax machines.

(c) Ready access to global, regional, national and local warning systems and broad dissemination of warnings.

Our current communication system with the outside world is very limited in that we do not have access to the available products that are of benefit to us and critical to the effectiveness of our Warning System. In the event of a tropical cyclone warnings are disseminated widely through fax machines to a lot of identified recipients. We also make warnings available through the local media and Radio New Zealand International.

2. PRESENT NATIONAL PLAN FOR NATURAL DISASTER REDUCTION

a) The present National Disaster Plan 1987 which provides guidelines for all management aspects of Disasters in PREPAREDNESS, RESPONSE AND RECOVERY is our main plan used for Natural Disaster Reduction and is subject to review regularly. Apart from this there is also a Disaster Plan 1989 for NGO's.

- b) Agencies, Institutions and Organisation involved are:
 - * NDC/NDMO
 - * Development Services Exchange (umbrella organisation for all NGO's)
 - * Government Ministries
- c) Implementing Agencies are:
 - * NDMO
 - * Government Ministries
 - * NGO's
- d) Funds available for implementation:
 - * Annual Government Subsidy to NDMO
 - * Recurrent National Budget
 - * Outside Assistance AIDAB, UNDP, ADPC etc.
 - * Public (Through appeals usually after a Disaster).
- 3. LEGISLATION INTRODUCED AND ENACTED IN RELATION TO NATURAL DISASTER REDUCTION
 - * NDC Act 1989 which waspassed and adopted in 1990 by the National Parliament.

a) Identification of hazard zones: hazard assessment

Title of project:

Volcanic Hazard Assessment and Volcanological Monitoring of Savo Volcano, Solomon Islands

Status:

Project proposal is written and is awaiting funding. Once a funding source can be identified the project can be implemented at once.

Participating institutions in the country and/or on the international level:

Solomon Islands Geological Survey Division
Solomon Islands National Disaster Council
Australian Geological Survey Division, Canberra, Australia
Macquarie University, Sydney, NSW, Australia
University of Hobart, Tasmania, Australia

Costs of project:

\$220 000 U.S. over a two year period.

Sources of funding:

No funding has yet been obtained. Possible donors include AIDAB, (Australian Aid), and the United Nations through IDNDR.

Implementing agencies:

Solomon Islands Geological Survey Division
Australian Geological Survey Organisation

Address (telephone and fax-number) of the agency in charge:

Solomon Islands Geological Survey Division, Ministry of Natural Resources, PO Box G24, Honiara, Solomon Islands. Telephone: 677 21521, Fax 677 21245

Project Resume: Volcanic Hazard Assessment and Volcanological Monitoring of Savo Volcano, Solomon Islands

This project is based on a two year working period. Interested Australian volcanologists/ natural disaster workers who have expressed an interest in the project have been identified. These scientists are Drs Wally Johnson, (AGSO), Russel Blong, (Macquarie University, Sydney), and Jocelyn McPhie, (University of Hobart). A detailed project proposal document which includes aims, objectives, outcomes, and a breakdown of the costings has been written by Dr Mike Petterson of the Solomon Islands Geological Survey Division.

Savo is located 35 kms NW of Honiara, the capital town of the Solomon Islands, (population >50 000). Savo island itself has a population of 2500 which constitutes a high population density considering that the island measures only 6 kms in diameter. Other threatened populations include people resident in NW Guadalcanal and the Florida Islands, (total population about 20 000).

Savo is a stratovolcano which rises some 1385m above the seafloor and has a basal diameter of 9kms. Only the top third of the volcanic structure is visible above sea level. The volcano is known to have erupted in 1567 and again over the period 1830 -1840. A recent study of the oral history has suggested that at least two other eruptions are known, although it is impossible to put a date on these eruptions. A best 'guestimate' would indicate a dormant period of 200 - 300 years between eruptions. These eruptions caused significant loss of life, destruction of houses & gardens, and a major evacuation of Savo.

The predominant volcanic deposit on Savo consists of basaltic andesite to dacitic tephra, with subordinate basaltic to andesitic lavas. These tephra deposits result from highly explosive pyroclastic fall and pyroclastic flow, (ignimbrite) eruptions. Other deposits are the result of devastating mudflows which commonly accompany a volcanic eruption and continue long after the eruption has ceased, (Savo experienced a recent mudflow in the 1950's). Descriptions of the 1567 and 1830's eruptions are consistent with a violent 'nuees ardentes' block and ash flow style of eruptions.

Savo is recognised By Dr John Latter of New Zealand's DSIR as the most serious volcanic hazard in the Solomon Islands. He estimates that a large scale eruption could affect a radius of 100 - 200 kms, and even a moderate scale eruption could affect a radius of 50 kms around the volcano. Dr Latter presented his evidence to the ESCAP, (United Nations) symposium in Bangkok in February 1991, and his paper is published in the Proceedings of the Regional Symposium on the International Decade for Natural Disaster Reduction.

This project aims to quantify, as far as is possible, the potential risk of Savo, produce hazard assessment maps for Savo, Honiara and adjacent areas, an evacuation plan for Savo, and train Solomon staff in volcanology and volcanic monitoring.

4. Disaster mitigation activities Planned

by Identification of hazard zones: hazard assessment

Title of project:

Landslide Hazard Assessment Study in South Guadalcanal, Solomon Islands

Status:

Project is awaiting funding.

Participating institutions in the country and/or on the international level:

Solomon Islands Geological Survey Division.

Other possible collaborative institutions include the Australian Geological Survey Organisation and New Zealand's Institute of Nuclear and Geological Sciences.

Costs of project:

Detailed costings have not yet been calculated, but an initial cost estimate would be in the \$100 000 to \$150 000 US.

Sources of funding:

Possible sources include the UN, Australian Aid and New Zealand aid. New Zealand Aid has funded a long term hydrogeology project in the Solomon Islands since 1983.

Implementing agencies:

Solomon Islands Geological Survey Division plus a collaborative institution in the Pacific region.

Address (telephone and fax-number) of the agency in charge:

Ministry of Natural Resources, Geological Survey Division, PO Box G24, Honiara, Solomon Islands. Tel 677 21521. Fax 677 21245.

Project Resume: Landslide Hazard Assessment Study in South Guadalcanal, Solomon Islands.

The proposal project area is South Guadalcanal extending some 60 Km east-west by 20 Km north-south. It is about 30 Km from Honiara and is accessible by air and sea only. There are two airstrips in the area which are about 60 Km apart. This study will complement and develop a similar area completed by the Department of Scientific and Industrial Research Group Palmerston North, New Zealand, "Flood And Landslide Hazard, Northern Guadalcanal Solomon Islands" (1993).

For most part the area is rugged with peaks rising up to more than 2000 meters high above sea level. The area has experienced high annual rainfall. For example, at Chikora on the Upper Koloula River, the mean annual rainfall is over 8000 mm (Report No. 93/10 to UK ODA) and is much the same for another settlement in the Avuavu.

The area experienced a high level of seismic activity. In the last 217 years earthquakes with a Richter magnitude of greater and equal to 4 were recorded during the period between 1976-1993. The most devastating earthquake in the area occurred in 1977 and had a Richter magnitude of 7.0. The earthquake caused landslides in eastern, central and southern Guadalcanal. The most severely affected area was South Guadalcanal where 60% of the cultivated and planted garden land was destroyed 12 people were killed and 2000 people were evacuated from their homes.

Landslides enhanced by heavy rainfalls and earthquakes have been claiming lives of people for a very long time. The latest incident happened last year (Nov. 1993), when two people were killed by landslides. On average, 3 to 4 people get buried by landslides every year. Exceptional landslides (such as those which follow a major cyclone in 1986),have wiped out whole villages (41 people) on Guadalcanal.

The main objective of this project is to assess the relative hazard risk of the study area with respect to landslides. One of the main end products will be the production of a landslide risk map, which will be of essential use to the local population and planners. The main findings of the study will be disseminated as effectively as possible to the local population, and hopefully will be used in the siting of future villages and gardens.

E) Monitoring, prediction and warning

Title of project:

Monitoring of Seismic activity in the Solomon Islands

Status:

This project has been ongoing since 1965. Honiara is part of the worldwide network of seismic stations which is coordinated by the US Geological Survey. The Solomon Islands have one static seismometer in Honiara, and two other semipermanent stations located within the Central Province.

product the other

Participating institutions in the country and/or on the international level:

Solomon Islands Geological Survey Division

United States Geological Survey

Costs of project:

The total costs involved are around \$25 000 US

Three officers are employed full time to carry out this project. Finance is also required to maintain equipment and undertake fieldwork.

Sources of funding:

Solomon Islands Government

Implementing agencies:

Solomon Islands Geological Survey Division

Address (telephone and fax-number) of the agency in charge:

Ministry of Natural Resources, Geological Survey Division, PO Box G24, Honiara, Solomon Islands. Tel 677 21521, Fax 677 21245

Project Resume: Monitoring of Seismic Activity in the Solomon Islands

One of the primary roles of the Solomon Islands Geological Survey is to monitor the seismic activity which is prevalent in the country. This project has been in existence since 1965, and with the help of the USGS, zones of seismic activity have now been accurately constrained. It is now possible to construct computer generated thematic maps which give essential earthquake information relating to the epicentre position, focal depth, and magnitude of intensity. The data can also be used to determine the frequency of earthquakes of differing magnitude.

These data have revealed zones of high risk: for example within the Solomon Islands South Guadalcanal and Western Makira are areas of very high frequency seismic activity. South Guadalcanal is also an area of high rainfall, high relief, and steep slopes, which makes it an area prone to regular landslides.

The Solomon Islands Government has shown it's commitment to this project by providing funding for the past 29 years. However it is difficult to find funds to update equipment. the seismometer which comprises part of the worldwide network has only very recently been upgraded by the United States Geological Survey. All other seismometers which are stationed

Monitoring, prediction and warning

Title of project:

Seismic and Fumarolic Temperature Monitoring of Savo Volcano, Solomon Islands

Status:

This project has been ongoing since 1965

Participating institutions in the country and/or on the international level:

Solomon Islands Geological Survey Division

Costs of project:

Costs involve maintenance of the seismometer which is stationed on Savo, and regular field trips to Savo to monitor fumarole temperatures. Extra funding is sought to update equipment, most of which is now 30 yrears old.

Estimated costs: \$5 000 US

Sources of funding:

Solomon Islands Government

Implementing agencies:

Solomon Islands Geological Survey

Address (telephone and fax-number) of the agency in charge:

Ministry of Natural Resources, Geological Survey Division, PO Box G24, Honiara, Solomon Islands Tel 677 21521. Fax 677 21245 Project Resume: Seismic and Fumarolic Temperature Monitoring of Savo Volcano, Solomon Islands

In recognition of the potential hazard of a volcanic eruption from Savo volcano, (see project resume for 'Volcanic Hazard Assessment and Volcanological Monitoring of Savo Volcano, Solomon Islands'), the Solomon Islands Geological Survey has been making regular visits to Savo for the past 29 years. The objective of these visits is to monitor the current activity of this dormant volcano.

permanently stationed on One seismometer is Savo, temperature determinations of the most active fumaroles are made on a semi regular basis. At present there is little volcano-tectonic .activity onSavo, and temperature measurements show that the fumaroles maintaining a are constant temperature of between 80 C and 110 C. These are the only methods at the current time employed by the Solomon Islands Geological Survey aimed at attempting to recognise the first signs of an imminent eruption.

The Solomon Government recognises the importance of this project and has provided funds for a long time now. However this project represents a minimum level of monitoring, and is in need of a major rethink. It was with this in mind that the 'Volcanic Hazard Assessment and Volcanological Monitoring of Savo Volcano, Solomon Islands' project proposal was written. This project would provide a major impetus to volcanic hazard assessment in the Solomon Islands, and train local scientists in the field of volcanology.

Disaster mitigation activities planned: 4.

Monitoring, prediction and warning e)

Title of Project:

to facilitate Automatic Weather Station (AWS) Network monitoring and provisions of timely warnings and weather

information in the Solomon Islands.

Status:

The project is submitted as a proposal to seek and identify funding sources. Although the Solomon Islands Government fully realises its importance the project has to be externally funded. The Vaisala Pty Ltd has been identified as the supplier.

Participating institutions in the country and/or on the international level:

The Solomon Islands Meteorological Service

Vaisala Pty Ltd as supplier

Funding Agency/Aid Donor Country

Cost of project:

AUS\$544,213.00 (Australian Dollars) as of April 1992

The total cost would include 6 MILOS 200 AWS, 6 HF Communication for Outstation, relevant softwares, spares,

installation, commissioning, and training.

(See attached documentation)

Sources of funding: No funding sources have been identified.

Implementing agencies:

Solomon Islands Meteorological Service Ministry of Posts and Communications Funding Agency/Aid Donor Country

Address (telephone and fax number) of agency in charge:

Solomon Islands Meteorological Service PO Box 21,

Honiara,

SOLOMON ISLANDS

Telephone:

(677) 21757, 21758, 21759, 21718

Facsimile:

(677) 20046, 30618, 33618

PROJECT PROFILE

1. Project Title:

Automatic Weather Station (AWS) Network - Solomon Islands

2. Project Locations:

Solomon Islands (Honiara) - Base Station

Six AWS's are to be located in the Provinces. It is planned to locate them at:

a)	Allardyce	441	Isabel Province
b)	Maka	-	Malaita Province
b)	Sikaiana	-	Malaita Province
ď)	Duff Islands	-	Temotu Province
e)	Vella Lavella	-	Western Province
ń	Santa Ana	-	Makira Province

These would be located at areas such that the passage of any tropical cyclone through the Solomon Islands will be monitored by these AWS's a full weather coverage of the Solomon Islands.

3. Administering Authority:

Ministry of Posts and Communications Solomon Islands Meteorological Service.

4. Project Manager:

Permanent Secretary - Ministry of Posts & Communications Director Meteorological Service

5. <u>Background</u>:

It is both too impractical and expensive to maintain conventional (manned) weather stations in the more remote, or smaller land areas of the Solomon Islands. However, it is imperative that meteorological information be obtained from these areas. These information can be of vital importance in the monitoring of tropical cyclones; the aviation and marine industry and for the formulation of real time forecasts, warnings and climatology studies.

The introduction of an automatic weather station network, will fulfill these requirements.

Although they are not as versatile as human weather observers, they can collect valuable meteorological data and either transmit this data at regular intervals, or can be interrogated on demand.

6. <u>Project Description</u>:

Installation of six automatic weather stations for surface observations throughout the Solomon Islands. The initial phase of the project is to install a Base Station at Meteorological Headquarters followed by the installations at the various chosen sites in the provinces.

The project may be flexible in terms of the number of annual installations timeframe. The project would also be reactivated for additional AWSs to be installed at critical sites. The six sites have already been identified.

7. Staff Required:

One or two expatriate technical staff would be required from the company supplying and installing the units.

At least three national technical staff would be required for both the installation and training.

8. Cost Estimate:

Three different brands of Automatic Weather Stations have been costed, however, with due consideration to technical backup, spare parts supply and WMO endorsement, this Service feels that the Vaisala product, is far superior to others that have been costed. The recommended AWS is the Vaisala Milos 200 Automatic Weather Station.

Please refer to the attached detailed quote from Vaisala, which is subject to confirmation.

TOTAL PROJECT COST : \$AUD 544213.00 (Australian)

The World Meteorological Organization has already installed one such AWS at Anuta Island, in the Southeastern part of the Solomons.

9. Expected Benefits:

- a) The quality of forecasts and warnings will be greatly improved.
- b) Help maintain an effecient warning system in the Solomon Islands.
- c) The aviation and marine services will receive immense benefits, by having more accurate meteorological data for areas they now travel to, with little, or as is in most cases, no data at all. Thus mitigating meteorologically related disasters.
- c) Other benefits include climatic data over a greater area would be available. This will enable a far greater accuracy, on climatic details for longterm monitoring and National Development Projects.



OFFER

Ref

1 APRIL 1992

A2629

Page1

Solomon Islands Meteorological Service Honiara SOLOMON ISLANDS

AWS network

Attn: Mike Ariki

Last Date of Validity

Until 1 May 1992 Terms of Payment

Time of Delivery

within 3 months after receipt of order

Terms of Delivery

CIF Honiara Solomon Islands The prices are firm and exclude duty, sales tax or any other government charge. Internal freight excluded. (see notes)

Irrevocable Letter of Credit, partial shipment allowed. 20 % at signing the contract 75 % against shipping documents 5 % at completion of Vaisala installation and training.

We are pleased to offer Automatic Weather Station Network as follows:

Item Qty Description

Unit Price IN AUD

Total Price IN AUD

Automatic Weather Stations:

1. MILOS 200 AWS Outstation, incl: 6

\$ 34,087.-\$ 204,522.-

- weatherproof cabinet with sunshine shield
- central processing unit
- analog & digital interfaces
- DC/DC converter
- power supplies
- battery back-up
- RS232C interfaces
- Digital pressure sensor ,DPA21
- Wind speed sensor, WAA15A, wind direction sensor WAV15A and cross arm WAC 15
- Humidity sensor and Temperature sensor HMP 35D
- Radiation shield for temperature and humidity sensors, DTR 13
- Precipitation (Rain gauge) sensor, RG13, incl. stand
- Solar Radiation sensor CM 11
- software for WMO SYNOP and METAR messages
- 22.5 m Winch-up cyclonic mast with guy wires
- Cable harness for MILOS 200 and sensors, including sensor support arm
- lightning protection and ground rods
- one set of operator and maintenance manuals
- 12 months' warranty (repairs at the factory or at Melbourne office)

21

.696 5699

Date 1 APRIL 1992

A2629

Page2

HF - Communication Equipment:

2. 6 HF - Communication for Outstation:

\$ 22,405.- \$ 134,430.-

- 100 Watt HF SSB Transceiver
- 8580 HF Data Modem with cables
- Waterproof Metal cabinet to house and screen transceiver and modem
- Solar Power equipment consisting of:
 - 3 x 3.4 Amp Solar Panels
 - 12 Volt 500 A/H batteries
 - Battery cabinet and power cables
 - Battery charging regulator
- Broadband Antenna system with pulleys, steel halyards, coaxial cable, plastic conduit, earth bonding strap for mast
- Supports for HF antenna
- lightning protection
- one set of manuals
- 12 months' warranty (repairs at the factory or at Melbourne office)
- 3. 6 Additional equipment for outstation to enable SPECI message transmission.

\$ 3,500.-

\$ 21,000.-

4. 1 Additional software for Central Control Station to enable SPECI message reception.

\$ 3,000.-

\$3,000.-

\$ 45,584.-

- 5. 1 Central Control Station (CCS) to \$45,584.automatically collect data from Outstations.
 Provision for interrogation of AWS outstations,
 editing, printing and storage of received messages
 and network status information
 - 100 Watt HF SSB transceiver
 - 8580 HF Data Modem
 - Base Station Controller comprising IBM compatible computer VGA display, 40 MB hard disk, 1 MB ram, serial and parallel port and menu driven software
 - 12 Volt regulated mains power supply
 - Desk Top 19" Rack Cabinet to house Transceiver, Modem, and Power supply
 - masts for HF antenna
 - lightning protection
 - Uninterrupted Mains Power Supply (UPS)
 - Matrix Paper printer
 - one set of manuals
 - 12 months' warranty (repairs at the factory or at Melbourne office)

Telephone

Ph: (03) 696 5699

Telefax: (03) 696 5776

Telex

VAISALA PTY. LTD.

Installation:

6. 7 Installation, supervising and commissioning, \$10,900 \$76,300.including on-site installation and operator training,
duration of 10 days / station, including misc. items,
travelling and accommodation cost.

Recommended spare parts and tools for three years' operation:

7. 2 Sets of recommended spares for MILOS 200 Automatic weather station, for 6 systems:

\$ 7,804.-

\$ 15,608.-

- WAV 15A Anemometer
- WAA 15A Wind Vane
- Anemometer cup assembly 7150
- Wind vane tail assembly 6389
- Wind sensor bearings (set of 4) 6035
- Wind sensor gasket
- Humidity sensor HMP 35D
- Analog interface DMI 21
- Digital interface DMD 21
- DC/DC converter DPS 21
- CPU board DMC 228
- 8. 1 Set of recommended spare parts for HF-communication equipment:
- \$ 16,132.- \$ 16,132.-

- HF transceiver 8528
- set of printed boards for Transceiver
- 8580 HF data modem
- solar panels (3)
- Battery charging regulator
- set of spares for Base Station Controller
- Remote Controller unit
- Set of special maintenance and calibration tools and equipment for MILOS 200 and HF - communication equipment
 - Bird 43 Thruline Wattmeter
 - Temperature and Humidity signal simulator
 - wind speed and direction signal simulator
 - HMK 11 calibrator with required salts
 - Portable maintenance terminal, Laptop PC
 - Digital Multimeter
 - Safety Harness Belt
 - PA 11A Digital Barometer

\$ 10,437.- \$ 10,437.-

Telephone

Telex

Telefax

A2629

Page4

Training:

VAISALA PTY, LTD.

- 10. 1 Operator and Maintenance training package \$ 17,200.- \$ 17,200.- for MILOS 200 and HF-communication equipment.
 (total 3 weeks + practical on-site training during the actual installations), including accommodation and travel cost of Vaisala staff comprising:
 - Installation and Maintenance training for up to 4 persons,
 1 week duration. Conducted in Melbourne prior to deliveries.
 (Includes Economy return airfare and accommodation costs for 4 persons).
 - Operator and Maintenance training, for up to 4 persons, 2 weeks duration. Conducted in Solomon Islands after installation and commissioning of Base Station and at least 1 outstation, (Includes Economy return airfare and accommodation costs for Vaisala staff).

OPTION - UPGRADE AND INTEGRATION INTO NETWORK OF AWS DONATED UNDER AID PROGRAM. INTENDED INSTALLATION SITE - HENDERSON AIRPORT - MAINS POWERED

11. 1 Upgrade to MILOS 200 AWS donated under aid program, incl:

\$ 19,540.- \$ 19,540.-

- Digital pressure sensor ,DPA21
- Humidity sensor and Temperature sensor HMP 35D
- Radiation shield for temperature and humidity sensors, DTR 13
- Precipitation (Rain gauge) sensor, RG13, incl. stand
- Solar Radiation sensor CM 11
- software for WMO SYNOP and METAR messages
- 22.5 m Winch-up cyclonic mast with guy wires
- Cable harness for MILOS 200 and sensors, including sensor support arm
- lightning protection and ground rods
- one set of operator and maintenance manuals
- 12 months' warranty (repairs at the factory or at Melbourne office)
- 12. 1 Communication equipment for MILOS 200
 AWS donated under aid program, to enable connection to the proposed AWS network

\$ 4,800.- \$ 4,800.-

13. Installation, supervising and commissioning, \$10,900 \$10,900.including on-site installation and operator training,
duration of 10 days, including misc. items, travelling and
accommodation cost.

24

Telephone

Number

Date 1 APRIL 1992

A2629

Page5

NOTE: INSTALLATION DOES NOT INCLUDE

- Supply of materials for concrete foundations for masts (please refer to the attachment detailing mast foundation requirements.)
- Installation of cabling, (mains power, data or signalling), between Antenna site and Operator site at Henderson airport.
- Local freight costs of equipment within the Solomon Islands.

NOTE: INSTALLATION REQUIREMENTS

- Installation of the AWS outstations requires at least two Solomon Island MET persons to be present to assist with, and receive practical training in the AWS installations.

for VAISALA PTY LTD

Simon Harrod

Systems Engineer

25

4. Disaster mitigation activities planned:

f) Monitoring, prediction and warning

Title of Project: Meteorological Satellite Reception Facilities to facilitate

monitoring and provisions of timely warnings and weather

information in the Solomon Islands.

Status: The project is submitted as a proposal to seek and identify

funding sources. Although the Solomon Islands Government fully realises its importance the project has to be externally funded. The Alden International Inc of USA, has been identified as the

supplier.

Participating institutions in the country and/or on the international level:

The Solomon Islands Meteorological Service Alden International Inc. of USA as supplier

Funding Agency/Aid Donor Country

Cost of project: US\$52,742.63

The total cost would include basic systems, spares, installation

and commissioning, and training. (See attached documentation)

Sources of funding: No funding sources have been identified.

Implementing agencies:

Solomon Islands Meteorological Service Ministry of Posts and Communications Funding Agency/Aid Donor Country

Address (telephone and fax number) of agency in charge:

Solomon Islands Meteorological Service

PO Box 21, Honiara,

SOLOMON ISLANDS

Telephone: (677) 21757, 21758, 21759, 21718

Facsimile: (677) 20046, 30618, 33618

PROJECT PROPOSAL

1) Project Title - Acquisition of a Weather Satellite Receiving Station

2) Project Location - Honiara

3) Administering Authority - Ministry of Posts and Communications

Solomon Islands Meteorological Service.

4) Project Manager - Permanent Secretary Min of Posts and Communications

Director Meteorological Service

5) <u>Background</u>:

The Solomon Islands is located at a cyclone-genesis area and is subjected to irregular intervals, to the most devastating of all natural phenomena; tropical cyclones. In fact in 1986, the most serious natural disaster in the living memory of the Solomon Islands occurred - Tropical Cyclone Namu. In a period of just four days, 103 people died, 90,000 were left homeless and millions of dollars worth of damage had been caused.

In it's combination of violence, duration and size of area affected, a tropical cyclone is without equal for the sum total of the destruction it can cause.

Satellite reception facilities provide very valuable information from weather satellites in the detection of daily weather patterns, including the forecasting and tracking of tropical cyclones. The various important characteristics of a tropical cyclone such as the eye, rain shield and feeder bands could be revealed on satellite imagery, providing the necessary information needed for warnings and advices, and in the forecasting of the intensity, development and movement of a tropical cyclone.

6) Project Description:

Acquisition and installation of a Weather Satellite Receiving Station at the Meteorological Service Headquarters in Honiara. The existing facilities at the Henderson Airport (15 km away) is also aging and needs replacement and its very limited in what it can do with the available information.

A strong recommendation within this Project Profile, is the acquisition of the Alden APTS/WEFAX-6A Weather Satellite Receiving System, for reception of NOAA & METEOR polar orbitting weather satellite APT images, and WEFAX/LRFAX images from GOES, Meteosat and GMS. This system is used in Vanuatu and is an updated model of that operating at Henderson Airport.

The Alden International Inc., of USA who is to supply the equipment, has given us preliminary cost estimates, subject to confirmation since its issue

7) Staff Required

National Staff:

- (a) On the job training for technical staff, during and after installation. Thorough maintenance briefing of technicians.
- (b) Initial on the job and familiarization for operational

Expatriate Staff:

Installation team.

8) Cost Estimate

Capital:

Alden APTS/WEFAX-6A Weather Satellite Receiving System, for reception of NOAA & METEOR polar orbitting weather satellite APT images, and

WEFAX/LRFAX images from GOES, Meteosat and GMS.

Total Price CIF Solomon Islands via Air

US\$22,893.63

Alden Model 9315CTP-999 Photographic Quality

Thermal Printer

US\$6,950.00

and plastic base thermal paper at (US212.00 X 2)

US\$424.00

Training and Installation:

US\$15,345.00

Depot Spares Kit

:

US\$7,130.00

Recurrent

Staff salaries and routine maintenance. Covered in the Division's recurrent budget.

TOTAL COST:

US\$52,742.63

(Alden International Inc. ProForma Invoice attached)

9) Expected Benefits

The benefits of having the satellite reception facility is to mitigate potential tropical cyclone disasters by providing the necessary warnings to the general public and affected areas. Other areas to benefit are the aviation and marine industries who depend very much on weather informations for their safe operations and avoiding potential severe weather hazards.



ALDEN INTERNATIONAL, INC.

40 Washington St., Telex 200192 ALDEN UR

Westboro, MA 01581-0500 USA Tel: 508-366-8851 Fax: 508-836-4978

FAX MESSAGE

TOTAL NUMBER OF PAGES 11

TQ:

Mike Ariki, Director - Sclomon Islands Meteorological Service Ministry of Tourism and Aviation, Solomon Islands

FROM:

Kevin P. O'Reilly - Alden International, Inc.

DATE:

June 8, 1993

REFERENCE:

Your Fax of May 12, 1993, 415/04/10

We would like to thank you for stopping by our exhibit this year in Geneva. Your interest is the Alden APTS/WEFAX 6A Weather Satellite Receive System is very much appreciated.

We have reviewed our information on your existing system and the information provided in your fax and have determined that it may be possible to add a remote workstation to your existing system.

We have provided two (2) Pro Forma Invoices covering the two (2) configurations we feel meet your requirements.

The First (AI-Q-26953-93) utilizes your existing Parabolic Antenna, Omni-directional Antenna and 9331S Receiver to provide an analog signal to the telephone line. No modem will be required as this is an analog signal. The telephone line should have attenuation distortion of 500 to 3000 Hz, -2 to +3 db attentuation variation and an envelope delay distortion of 1000 to 2600Hz.

1. The output of your existing 9331S receiver will feed a new distribution amplifier and vestigial sideband filter that will split the signal to feed your existing C3000 and the telephone line. At the remote location will be a 6A system consisting of the P.C., monitor, ingest board and software. The ingest board located inside the P.C. will receive the analog signal from the telephone line.

You should be aware that WEFAX images are transmitted at 240 scens per minute. At this rate it is very difficult to send this data over a telephone line without distortion, even with an ideally conditioned telephone line. We therefore propose a second configuration.



ALDEN INTERNATIONAL, INC.

40 Washington St., Westboro, MA 01581-0500 USA Telex 200192 ALDEN UR Tel: 508-366-8851 Fax: 508-836-4978

PRO FORMA INVOICE NO.

AT-Q-26954-93

To:		Mike Ari	ki Tourism and Aviatio n	Date	June 8	, 1993		
	Sol	omon Isla	nds .	L Ca	Solomo: F	n Islands via Air		
Your re	01.:	Your Fax	Dated 12 May 1993	FAS Terms				
Shipm	tent	Within 6	O Days After Receipt of Letter of Cred	it _k∟ette	L. Letter of Credit Valid for			
Quota	tion Ve	alld for <u>90</u>	. Days		Days er			
	éM IÓ.	aty.	DESCRIPTION	UNIT PRICI U.S. \$	E	TOTAL PRICE U.S. \$		
	1.00	I	Alden APTS/WEFAX-6A Weather Satellit Receiving System, for reception of NOAA & METEOR polar orbiting weather satellite APT images, and WEFAX/LRFAX images from GOES, Meteosat and GMS. Model: APTS/WEFAX-6A Power: 240 VAC, 50 Hz Each System Includes:	e \$ 17,52	5.00	\$ 17,525.00		
	1.1	1	Alden VHF Omni-Directional Antenna System. Includes: a) Omni-Directional Antenna b) VHF Low Noise Preamplifier c) 200 feet of lead-in cable	Include	đ	Included		
	1.2	1	a) UHF Parabolic Antenna, 1.2M b) Antenna Stand c) 200 feet of lead-in cable d) LNA/ Down Converter e) WEFAX Antenna Installation Kit: - Two Adjustable Wrenches, - Sighting Compass, - Inclinometer	Include	đ	Inaluded		

All deliveries subject to any necessary United States Government Authorization.

APPROVED:

Kevin P. O'Reilly

International Sale

TEM	QTY.	DESCRIPTION	UNIT PRICE	TOTAL PRICE
NO.		Hills W black to the second se	U.S. \$	U.S. \$
2.3	7	Alden APTS/WEFAX-6A PC Operating System. Includes: a) 80486 PC/200 MB Disk Drive b) 17" Color Monitor c) Operator Keyboard d) Unix Operating System Software e) Annotation Package and Mouse f) Ingest Board g) Receiver Board h) X-Windows/MOTIF Display Software i) 16 MByte of RAM	Included	Included
1.∉		Installation, Operator and Maintenance Manuals (In English).	Included	Included
		Total Price FOB Factory Westborough MA. For Inland Freight, Handling, Air Freig Total Price CIF Solomon Islands via Air	ht and Theorem	\$ 17,525. 5\$ 5,368. \$ 22,893.
		PAYMENT		
		Payment is requested by Confirmed Irrevocable Letter of Credit Payable 100% cash against shipping documents at time of shipment through The First National Bank of Boston, 150 Federal St., Mail Stop 50-04-01, Boston, MA 02:	110	
OPTIO!	VS:			
2.0	I Quali	Alden Model 9315CTP-999 Photographic ty Thermal Printer	\$ 6,950.00	\$ 6,950.00
r	Z.	Operator, Installation and Maintenance Manual (In English)	Included	Included
2.2	l or More	Plastic base thermal paper Part Number PTP1061, consists of 6 Rolls per case of High Quality Plastic Coated Thermal Paper. Recommended for satellite picture	\$ 212.00	\$ 212.00

40 Washington St., Westboro, MA 01581-0500 USA Telex 200192 ALDEN UR Tel: 508-366-8851 Fax: 508-899

recordings

ITEM	QTY.	DESCRIPTION	**************************************	
NO.		2 TOURITH TON	UNIT PRICE U.S. \$	TOTAL PRICE U.S. \$
		Training and Installation Supervision		
3.0	I Lot	Factory Training	\$ 2,000.00	\$ 2,000.00
		5 Days Factory Training in English at Alden Factory for 2		
		qualified technicians in the operation, installation, and maintenance of the equipment to be supplied. NOTE: Excludes trainees travel and living expenses while attending Alden's Factory Training School.		
4.0	I Lot	On-Site Installation Supervision	\$15,345.00	\$15,345.00
*		A maximum of five days on-site for installation supervision will include the supervision of the equipment installation; checkout for satisfactory operation of the equipment supplied; and local operator and technical training.		
		Depot Spares Kits		
.5. 0		Alden APTS/WEFAX-6A Depot Spares Kit Consists of: a) LNA/Down Converter b) VHF Low Noise Preamplifier c) Receiver Board, P/N PC 137 d) Ingest Board, P/N WFX II.	\$ 4,080.00	\$ 4.080.00
· •		Alden Continuous Tone Printer (9315CTP-999) Depot Spares Kit. (see attached list)	\$ 3,050.00	\$ 3,050.00

APPROVED:

Kevin P. O'Reilly

International Sales Manager

TOLIN IN MERCHANICAL MANAGER

ALDEN INTERNATIONAL IN

40 Washington St., Westboro, MA 01581-05(X) USA Telex 200192 ALDEN UR Tel: 508-366-8851 Fax: 508-898-2427



ALDEN INTERNATIONAL, INC.

40 Washington St., Telex 200192 ALDEN UR Westboro, MA 01581-0500 USA Tel: 508-366-8851 Fax: 508-836-4978

ALDEN 6A APTS/WEFAX SYSTEM

SYSTEM SOFTWARE FEATURES

1. General Features:

System uses Unix X-Windows and MOTIF Graphical User Interface.

Mouse or keyboard driven menu options.

Help screens for all menu options.

Simultaneous ingest of images in background while allowing the operator to manipulate data in the foreground.

Operator controlled to retrieve, store or delete files from any directory.

Operator defined palette for mixing color and grey levels.

Operator selectable portion of the grey scale for highlighting special areas of interest.

Operator selection to color interpolate from color to color, grey to color, or color to grey in any direction.

Operator defined palette of colors for enhancement of visible and infra-red imagery.

Operator selection of a positive or negative image depending on the satellite format.

Capability to histogram selected area and generate maximum contrast enhancement.

Operator selectable pixel averaging for image reduction.

Rotate images 90°, 180°, and 270°.

Pan and zoom from 25% to 1000%.

System automatically decodes all header information (sectors, date, time, enhancements, type, etc.).

Automatic write-to-disk with time/date stamp and sector identification.

Number of stored image files is limited only by the size of the computer hard disk.

The system auto deletes images to prevent overrun of disk capacity. The number of images the system saves is a fixed number or age defined by the operator.

Automatic reboot of system after restoral of power from an unscheduled power loss.

Files saved in either GIF or TIFF format for archiving.

Selectable printer driver list for most popular printers.

Continuous varying resolution from 210 X 210 up to 1024 X 768.

Operator selection of the number of pixels per line up to 2048 horizontally.

Automatic horizontal and vertical sync lock.

2. For APT Systems Only:

Proper aspect ratio for all satellites producing true ground border detail and accuracy for overlaying geopolitical boundaries.

Captures both NOAA and METEOR APT channels with no loss of data at full resolution.

Complete NOAA/NESDIS IR enhancement curves may be applied to NOAA satellites imagery.

24 hour scheduler/timer for selected image capture times.

Automatically adjusts for doppler shift.

AVHRR temperature calibration for NOAA satellites to 1 degree Celsius.

Gridding of all NOAA polar orbiting satellites with latitude and longitude.

For Geostationary Satellites Only:

Ingest and display of GOES-TAP, METEOSAT-WEFAX, GMS-LR FAX and GOES-WEFAX images.

Automatic start tone and stop tone detection for GOES, METEOSAT, GMS, GOES-TAP and Hi Frequency FM.

Time lapse looping of GOES, METEOSAT, GMS and GOES-TAP images up to 6 images per second.

Decodes binary headers on images for ingest and store.

Generates a selective image loop based on image binary headers.

The system saves only those image sectors programmed by the operator. The operator is able to define the image sectors that are desired.

4. DISASTER MITIGATION ACTIVITIES PLANNED

g) Short-term Protective measures and preparedness

Title of project:

COMMUNITY PREPAREDNESS WORKSHOPS

Status:

A trial Workshop has already been conducted successfully in one of the Provinces in July 1993 jointly with S.I. Red Cross. A Review is currently been carried out to meet the recommendations made during the Workshop for improvements. The Workshop organised separately for each Provinces.

Participating institutions in the country and/or on the international level:

- a) Rural Communities
- b) Church Organisations
- c) NDMO
- d) Solomon Islands Red Cross Society

Costs of project:

US\$20,000.00

Sources of funding:

Unknown

Implementing agencies:

- (a) National Disaster Management Office
- (b) Solomon Island Red Cross Society
- (c) Provincial Disaster Committees

Address (telephone and fax-number):

SECRETARY (NDC)
NATIONAL DISASTER MANAGEMENT OFFICE
MINISTRY OF HOME AFFAIRS
P O BOX G11
HONIARA
SOLOMON ISLANDS

TELEPHONE: (677) 23662 FAX: (677) 23661

PROJECT PROFILE

PROJECT: COMMUNITY PREPAREDNESS WORKSHOP

The Community Preparedness Workshop Project is a series of 8 Preparedness Workshops planned for each of the Provinces in the country.

The Workshop is aimed to target Church and Community Leaders in rural areas and it is intended to improve our current Disaster Awareness Programmes.

It is hoped that these Workshps would increase the level of Preparedness and Awareness at the rural area where 90% of the population in the country are found.

It is estimated that it will cost approximately US\$2,500.00 to run each Workshops.

The costs involved are, travelling accommodation and stationeries expenses.

h) Public education and information

Title of project:

DISASTER SCHOOL EXERCISE BOOKS

Status:

This Project will cater for costs to print Disaster informations in childrens School exercise Books.

Participating institutions in the country and/or on the international level:

- (a) NDMO
- (b) Curriculum Development Centre

Costs of project:

To be finalised

Sources of funding:

Unknown

Implementing agencies:

- (a) NDMO
- (b) S.I. METEOROLOGY SERVICES
- (c) SEISMIC UNIT DEPARTMENT OF GEOLOGY

Address (telephone and fax-number) of the agency in charge:

SECRETARY (NDC)

NATIONAL DISASTER MANAGEMENT OFFICE

P O BOX G11

HONIARA

SOLOMON ISLAND

TELEPHONE: (677) 23662 FAX: (677) 23661

PROJECT PROFILE

PROJECT TITLE: DISASTER SCHOOL EXERCISE BOOKS

The DISASTER SCHOOL EXERCISE Books Project is part of our Disaster Awareness campaigns in the country which is now in its early planning stage.

This project will be jointly implemented by National Disaster Management Office, Solomon Islands Meteorology Services, Geology Department - Ministry of Natural Resources and the Curriculum Development Center.

The aim of the project is to print Disaster related informations on school exercise books for use by school childrens throughout the country.

It is hoped to increase school childrens understanding and awareness of disasters and related hazards at an early stage.

The cost estimates is not yet finalised but will include printing and other related costs.

SECTION C: INTERACTIONS

1. PUBLICATIONS ON IDNDR RELATED SUBJECTS

- * CYCLONE POSTER
- * CYCLONE ACTION PAMPHLETS (ENGLISH/PIDGIN)

These Publications were made possible with assistance from the Australian IDNDR CO-ORDINATION COMMITTEE.

2. IDNDR MEETINGS AND CONFERENCES HELD OR PLANNED

(A) REGIONAL

- * Solomon Islands host the First SOUTH WEST PACIFIC REGIONAL WORKSHOP ON 11-14 MAY 1992 sponsored by the AUSTRALIAN IDNDR CO-ORDINATION Committee.
- * Participated in the Second SOUTH WEST PACIFIC REGIONAL WORKSHOP held in VANUATU on 25-26 AUGUST 1993 sponsored by the IDNDR AUSTRALIAN CO-ORDINATION COMMITTEE.
- * Participated in the South Pacific Region Workshop/UNDMT and the Regional INSARAG Meeting in Apia, Western Samoa in 29 November 7 December 1993 which was jointly funded by UNDP and UNDHA.

(B) NATIONAL:

- * September '93 NDC Meeting

 * November '93 NDC Meeting

 * December '93 NDC Meeting

 * February '94 NDC Meeting (Scheduled)

 * May '94 NDC Meeting (Scheduled)

 * July '94 NDC Meeting (Scheduled)

 * August '94 Provincial Disaster
 - Managers Workshop (Scheduled)

3. CURRENT OR PLANNED PARTNERSHIPS AND COOPERATION RELATED TO IDNDR WITH OTHER COUNTRIES

- * Established close co-operation with Australian IDNDR Co-ordination Committee in the Production of Public Awareness materials such as Posters, Pamphlets relating to Cyclone disasters.
- * On-going sharing of Disaster Information with VANUATU and FIJI National Disaster Management Offices.

SECTION D: EVALUATION

1. OVERALL EVALUATION

(a) IDNDR Background

Solomon Islands is a late player in the IDNDR Program, although alot of information related to the IDNDR program have been passed to the National Disaster Management Office since 1990.

It is only after the May 1992 South West Pacific Disaster Managers Regional Workshop, in which Solomon Islands was the host, that the concept of IDNDR was slowly absorbed. IDNDR activities have then been carried out under our normal Disaster Management Programs.

(b) <u>Disaster Mitigation Programs</u>

We've had only one Mitigation Program successfully completed in the country.

This is in the area of Flood and Landslide Hazard Risk Mapping in Northern Guadalcanal which was funded by the UNITED NATIONS TECHNICAL COOPERATION FOR DEVELOPMENT Program and carried out by the Department of Scientific and Industrial Research of New Zealand Government.

There are existing Mitigation Programs that can be effectively implemented, however this seems to attract very little commitment from consecutive Governments as well as donor organisations outside the country.

A significant development can be seen on our Public Awareness Programs with assistance from the Australian IDNDR CO-ORDINATION Committee in the Production of Disaster Posters and Cyclone related pamphlets and Action guides. Training is a major priority towards Disaster Reduction approach.

A fair evaluation in our situation would be to say that only a very small portion of our disaster preparedness needs have been addressed, firstly by our Government, as well as NGO's and secondly by outside Organisations under the umbrella of the IDNDR.

The linkages among these diverse structures and

policies must some how be strengthened, in order to draw attention and commitment firstly within our means nationally and then at the Regional and Global Levels.

2. REVIEW OF THE IDNDR

It may not be possible at this stage to put forward realistic comments to contribute towards the review of the IDNDR Program as Solomon Island is a late comer in the IDNDR.

However, perhaps a fair comment based on the period of our involvement since 1992, would be that the IDNDR concept has had minimal impact on Solomon Islands basically in many respects.

One major factor is our geographical location in this part of the World which is still very much unknown to the well Developed World. Being made up of tiny little Islands with very little to offer to the outside World, has had an impact on the volume of attention given or afforded to us. This may well be realistic for other South Pacific neighbouring countries as well.

In view of our constraints as a small developing nation, with fragile economic structures, the IDNDR Program should accord special recognition to the establishment of the Proposed "SOUTH PACIFIC DISASTER REDUCTION PROGRAMME" which will certainly bridge the gap that exists between the National Committees and the IDNDR Co-ordinating body.

In the Solomon Islands view point, this is the missing link that needs to be addressed more vigorously by the IDNDR World Conference.

Considerations should be based on Natural Disaster Impact on our already vulnerable Economy rather than the size of Population, the Magnitude and Occurrence rate of Natural Disasters.

Foundations for further Development of our Disaster Management Systems have already been put in place. This should be seen as an incentive for development of our disaster preparedness capabilities.