

Mission Report
UNEP Mission to Seychelles, 31 Jan – 10 Feb, 2004
Development of a National Disaster Management Strategy for the
Seychelles

From 31 January to 10 February I was on mission to the Seychelles leading a UNEP mission, which included disaster management consultant Lezlie Moriniere, to evaluate and update the country's Draft Disaster Management Plan for the Seychelles.

The mission comprised some 45 meetings held over a two week period, which included consultations with various government ministries, private industry and NGO that are involved in some aspect of disaster management. Early on in the mission, the team met with the National Disaster Committee, the high level decision-making body that meets bi-monthly and is convened when disasters strike to govern decision-making. During the course of the meeting and discussion on the objective and path forward for the UNEP mission, the NDC suggested altering the original terms of reference, requesting instead that the mission focus on the development of a disaster management strategy, covering elements of early warning, prevention, preparedness and response, rather than addressing solely the disaster response plan. The mission agreed to the requested changes to the TORs.

The focal point for the mission was Mr. Michel Vielle, Director, Forestry Division, Ministry of Environment. Mr. Vielle, along with Project Officer Basil Esther, hosted the team at the MOE offices, providing general office support, provided all necessary background documentation to facilitate the mission, including copies of the draft National Plan, various sectoral plans, and briefings on past disasters experienced by the Seychelles and various disaster management related issues throughout the mission.

The mission included site visits and consultations with government administrators and stakeholders (list attached) on four of the main islands that make up the Seychelles:

- Mahé, the main island and largest island, which includes the capital of Victoria and all government offices and the office of the President, and most private industry.
- Praslin, the second largest island that includes the Vallée de Mai, a UNESCO heritage site to protect one of the only Coco de Mer forests in the world.
- La Digue, and;
- Curieuse, a national park which houses a colony of giant Seychelles tortoises

The various stakeholders were consulted and interviewed using a structured questionnaire developed by the mission team, in order to obtain more standardized data and a better overview of existing disaster management structures. This also allowed the mission to more easily identify strengths and weaknesses in existing mechanisms, and to make recommendations for addressing gaps and areas of duplication, and also potential areas for future cooperation among organizations.

In the first week of the mission, I was interviewed by the local newspaper 'The Nation'. The article basically provided an overview of the work of the mission and is included for information.

The mission culminated with a final presentation of the mission findings to all stakeholders providing the outline and the basic recommendations for elements of a strategy. The presentation was successful and those stakeholders present at the meeting accepted the initial findings. A copy of the presentation is attached for reference.

The consultant will now undertake the development of the strategy and a draft has been promised to the Government of Seychelles by mid to end of March. Correspondingly, I will provide input to the updating the national plan as an interim measure, recognizing that the plan will undoubtedly need to be revisited within the context of the newly developed strategy.

Once the draft has been delivered, it will be delivered to Mr. Vielle of the Ministry of Environment, distributed for comment among stakeholders, and the consultant will produce a final draft. It is expected that the final report, pending receipt of comments from the Seychelles, will be completed sometime in April.

**UNEP Questionnaire to Standardize Feedback on
Risk/Disaster Management (RDMS) Strategy Preparation in Seychelles**

1. Contact: Name:.....Org:.....
 - Title:.....Telephone:.....
2. Are you aware of the existence of a Disaster Response Plan in Seychelles? YES NO
 - If yes, what do you understand your role to be in the plan?
 -
 - Are there any gaps that concern you?.....
 -
3. Are you aware of a National Fund set aside for use in Disaster Response? YES NO
 - If yes, do you know how to access it?.....
4. What do you understand to be a National Risk and Disaster Strategy as opposed to a Response Plan?
- Do you think there is need for such a Strategy? YES NO
- What would your organization's role be in that Strategy?.....
-
5. What hazards are you mandated to manage? To which phase of the Risk and Disaster Management Cycle is your role linked, regarding those hazards? Detail when possible.

Hazard	Prevention /Planning	Mitigation	Preparedness	Rehabilitation/ Reconstruction

6. What level of decision making does your agency hold in terms of disasters?
- Can/should decisions be made at various levels depending on type/seriousness of the emergency at hand?
YES NO
- Explain:.....
7. Describe your involvement in the latest disaster in Seychelles (January Floods, for example)
.....
-
8. In this domain, do you cultivate relationships with regional/international partners? YES NO
 - If yes, describe.....
9. What interaction does your agency have with the (25) District Administrators in disaster management?
10. What other advice can you give us in drafting the National Strategy for Risk and Disaster Management?
-
11. What might be your specific training needs in Risk and Disaster Management?
-

Meetings and Consultations in Developing a Disaster Management Strategy for the Seychelles

Monday, 2 February 2004

1. Ministry of Foreign Affairs
 - Mrs. Jeanette d'Offay, Technical Advisor
 - Mr. Sylvestre Radagonde, DR International Coordinator
 - Lalatiana Accouche, Second Secretary
2. Ministry of the Environment
 - Mr. Michel Vielle, Director of Forestry Division, Min Environment
 - Mr. Mr. Rolfe Payet. PS PPolicy Services
 - Mr. Didier Dogley
 - Mr. Basil Esther, Understudy to Mr. Michel Vielle
3. Office of the President
 - Mrs. Shroff of DMC since 2003
 - Mr. Alone Edmond, DG of Land Transport Division, Ministry of Tourism and Transport
 - Secretary

Tuesday, 3 February 2004

4. Seychelles Red Cross
 - Mrs. Collette Servina, President
 - Mr. Roy Nibourette, Disaster Coordinator
5. Commission of Police and Fire Brigade
 - Commissioner
 - Mr. Deputy Commissioner
 - Fire Chief
6. Ministry of Land Use and Habitat
7. Ministry of Tourism and Transport
 - PS Tourisme, Mr. Eddie Belle

Wednesday, 4 February 2004

8. Meteorological Office
 - Mr. Wills Agricole, Director
9. PUC/Water Sewerage
 - Mr. Rousseau, Managing Director
 - Mr. Wijegoonewardene, Chief Engineer
10. Seychelles Written Press: the Nation
11. Post Flood Task Force, Chaired by Minister Morgan, MLUH
12. Chamber of Commerce
 - Mrs. Nichole Tirant Gherardi, Secretary General

Thursday, 5 February 2004

13. SNOC: Seychelles National Oil Company
 - Mr. Patrick Samson, Geologist
 - Mr. Patrick Joseph, Geophysicist/Head Resource Mgmt. Section
14. PUC/Electricity
 - Mr. Philippe Morin

15. Ministry of Health
 - PS Mr. Maurice Lousteau Lalanne
 - Environmental Health Officer, Mr. Danny Poiret
 - Ms. Kathleen Adrienne
16. Minister Morgan, MLUH
17. Ministry of Economic Planning
 - PS Affif
18. Attorney General's Office
 - Ms. Ellen Carolus
19. Ministry of Industries and International Business
 - Mr. PS Joseph Andre Nourice

Friday, 6 February 2004, Praslin

20. Joint Meeting
 - MinEnv
 - MNA
 - DA
 - Hospital
 - Land Transport

Saturday, 7 February 2004, La Digue

21. La Digue MNAs and District Administrators
 - Mrs. Ranijan, DA
 - Mr. Henley Constance, MNA

Saturday, 7 February 2004, La Digue

22. Mr. Allen Cedres, Parks Officer, SCMRTMPA/Seychelles Center for Marine Research and Technology/Marine Parks Authority, Curieuse Island

Monday, 8 February 2004, back in Victoria/Mahe

23. Ministry of Tourism and Transport, Land Transport
 - Mr. Lafortune
24. Ministry of Pollution Control and Environment Impact
 - Mr. Flavian Jaubert
 - Mr. Barty, SWAC
 - Mr. Daniel Jaubert, EIA
25. SPDF/Army Chief of Staff
 - Mr. Leopald Payet, Chief of Staff
 - Capt. Edwards Anacoura, Training Officer
26. Coast Guard
27. Islands Development Company, IDC
 - Mr. Glenny Savy, Executive Chairman

Tuesday, 9 February 2004

28. Directorate of Civil Aviation, DCA
29. Nature Seychelles
 - Mr. Nirmal Shah, Director
30. Helicopter Seychelles
 - Director, Owner of Cousin Island

31. Air Seychelles
 - Ms. Vania Larue
32. Seychelles Petroleum
 - Director
33. SIF
 - Mr. Chong Seng, Executive Director
34. Ministry of Local Government
 - PS District Brigade



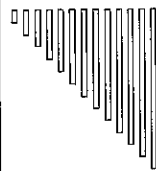
Towards a National Risk and Disaster Management Strategy

MinEnvironment & Natural Resources
As host to: UNEP Mission to
Seychelles
Lezlie Moriniers, Patricia Charlebois
February 2004



Contents

- Risk & Disaster Management
- Mission Findings, Trends
- Recommendations
- Steps Ahead
- Dialogue



RISK AND DISASTER MANAGEMENT



Risk VS. Disaster Management

- Setting up to manage a disaster is accepting defeat
- Risk Management is proactive, forward looking
- Some disasters are inevitable...



Risk Management is Cost Effective

- Examples:
 - Turtle Bay/Madarine Estates, 7millionR Rehab
 - Abide by EIA (i.e. do not construct), 0 R
 - Construction anyway, 5000 R, in maintenance
 - Praslin 2002
 - Millions Rupaes spent in Damage, Rehab
 - Proper Planning and Mitigation measures would have greatly reduced
- Save lives AND money



All Hazard Approach

- Natural Disasters (storm, floods, landslides, rockfall, tidal waves)
- Accidents (sea, road, air, chemical/oil spills, fires)
- Other: epidemics, terrorism

HISTORY of HAZARDS

- 1988: worst STORM /CYCLONE in history, 80 deaths, homeless
- 1990: FIRE completely destroys Curieuse Island
- 1992: STORM strong wide spread gale on Praslin, Fregate
- 1993: FIRE in Praslin/Salazie, 3 days
- 1990: FIRE, lost 40 hectares of forest
- 1991: LANDSLIDE Praslin
- 1995: HIJACKING Ethiopian Airlines, Comoros
- 1997: El Niño FLOODS, August
 - 1997: National Disaster Management Committee (DMC) reactivated
 - 1998: Response Plan (NDRP) drafted under sub committee
- 1999 FIRE, Praslin
- 2001: Severe DROUGHT
- 2002 6-7 September: 24 hour STORM with microburst, 1000 trees, 200 houses, 3DMR
- 2004 January: one district FLOOD: Aux Cap/Mandarine Village, 47 households (235 people) affected, Turtle Bay / Medallion Estate damaged

Since 1960: 4 major fires, 2 storms, 2 floods, 1 landslide, 1 drought

Hazard Data

CALLS	2000	2001	2002	2003	TOTAL
BUSH FIRES	90	101	40	46	277
DAMAGE COST Rupees	33 100	65 400	4 900	3 950	107 350
NATURAL DISASTERS	70	77	168	139	454
DAMAGE COST Rupees	308 100	124 200	222 200	1 201 700	1 856 200

Risk/Disaster Continuum

1. Prevention
2. Mitigation
3. Preparedness
4. Response:
 - a. Relief
 - b. Rehabilitation
 - c. Reconstruction

Insert DMIP graphics here

Speak the Same Language

<input type="checkbox"/> Prevention Planning, Early Warning...	<input type="checkbox"/> Preparedness Contingency Plans, Training, Equipment
<input type="checkbox"/> RISK= Hazard + Vulnerability Ship/Canoe	<input type="checkbox"/> Rehabilitation Restore to former level
<input type="checkbox"/> Mitigation Risk Reduction Policy and Structure	<input type="checkbox"/> Reconstruction Improve level/conditions

Strategy VS. Plan

<input type="checkbox"/> Entire RDM cycle	<input type="checkbox"/> Response Only
<input type="checkbox"/> PROactive	<input type="checkbox"/> REactive
<input type="checkbox"/> Sets stage on vision, flavor and perspectives	<input type="checkbox"/> Plans action with checklists

MISSION FINDINGS

Preface

- Warm welcome
- Extremely well organized mission thanks to MinEnv -- particularly the Forestry Division
- These views are those of UNEP and may not represent those of MoE personnel

Mission Methodology

- 35 entities (organizations / agencies) interviewed
- 85 individuals consulted
- 5 Islands: Mahe, Praslin, Ladigue, Curieuse, Cousin and Site Visits in Mahe
- triangulated information, trends

Good Thing & Bad Thing

- | | |
|---|---|
| GOOD THING: | BAD THING: |
| <input type="checkbox"/> NO major national disaster | <input type="checkbox"/> NO major national disaster |

SEYCHELLES

- Sitting on a time bomb
- Unpredictable DDay
- How serious are you about reducing risk NOW?

Positive Trends

- Good Luck, Good Will
- Small tightly-knit population relies a lot on each other
- Strong technical and human capacity
- Solid internal plans, and hazard contingency plans (fire, oil spill, etc.)

Not so Positive Trends

- No prevention culture
- Response Reflex is Knee Jerk
- Little Cross Pollination / Coordination (duplication)
- No clear / singular command authority that routinely clicks in
- Weak Communication



Most commonly expressed Concerns



Planning

- "we are not consulted"
- insufficient research (including Risk Analyses)
- weak critical analysis and documentation of lessons learned



Mitigation

- Drainage problems → floods
- Reclaimed Land = High Risk
- Boulder fall / land slides



Preparedness

- Equipment lacking or needing updates / maintenance
- Training insufficient
- No warning



Response

- No singular authority
- Little coordination
- « Everyone calls everyone »
- « Everyone comes »
- « No one comes »



UNEP Recommendations

A singular central authority managing R & D

- "National Risk /Disaster Management Council"
- Full time leader and small experienced secretariat
- Inside Office of the President
- Serves as executive and Coordinating body, decisional yet technical
- Enlarge Membership to include focal points from all pertinent line ministries, parastatals and NGOs/Red Cross

Committee VS. COUNCIL

- | | |
|---------------------------------------|--|
| <input type="checkbox"/> Provisional | <input type="checkbox"/> Permanent |
| <input type="checkbox"/> Tasks | <input type="checkbox"/> Authority |
| <input type="checkbox"/> Proposes | <input type="checkbox"/> Coordinates and Decides |
| <input type="checkbox"/> Very Focused | <input type="checkbox"/> Wide Spectrum |

Institutional Set up for NRDMC

A singular central Operational Response

- Command Control Center

Institutional Set up for Emergency Mgmt.

- Put Pat's schema

8 Roles for NRDMC Secretariat

1. Oversee related Legislation
 - i.e. Transparent guidelines for use of National Disaster Fund both in Prevention and Response
2. Catalyse Risk Analyses
3. Awareness Building of communities
 - IEC Materials, School Curricula...
 - Briefing the Press/Media

4. Finalize & obtain recognition for the Strategy

- UNEP Draft
- Widely disseminated
- Workshop to get feedback and consensus

5. Finalize Emergency Management Plan

- Apply UNEP recommendations
- Should be : Global Response Plan
- Umbrella plan that draws in hazard specific plans
- Gain consensus and Finalize

6. Catalyse Reinforcement of Meteo. Division

- Remote Sensing Analysis, storm tracks
- Tiered Warning system
- Coordination of comprehensive Hazard Specific analyses
 - MLUH GIS Section
 - Land Slides in Mahe underway, SNOC

7. Coordinate Training

- General DMTP
- GIS / Internet (as communication tool)
- Incident commander
- Continue First Aid
- Reinforce Paramedic...

8. RDM Institutional Memory

- Compiling and documenting lessons learned
- Archives
- Record Keeping

Decentralized Councils

- Made up of the existing Emergency Brigades
- Reinforced with training and equipment
- Add MNAs, as co co-ordinator with DAs
- Mitigation, as well as Response



Reorganize the Police / Fire Department

- Autonomy to Fire Dept.
- Documented Internal Plans/Procedures
- Fire Presence in Praslin and Ladigue
- Equipment / Training



CONCLUSIONS & STEPS AHEAD



UNEP TO DOs

- DRAFT NRDM Strategy
- REPORT with recommendations to finalize National Emergency Mgmt Plan
- CHECKLIST of Actions
- Stand by with further requests for assistance



SEYCHELLES GOV TO DOs?

- What are the priorities?
 - a. Saving lives and money...
 - b. Image enhancement...
 - c. Risk/Disaster Mgmt, as it will achieve both a and b.



DIALOGUE