

COMPONENT 1A - Project 1A4

Integrated Coastal Management
GERSA Project

September 2008



FINAL REPORT

Governance towards Integrated Coastal Management in Vanuatu



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CRISP



Coral Reef InitiativeS for the Pacific
Initiatives Corail pour le Pacifique



The CRISP programme is implemented as part of the policy developed by the Secretariat of the Pacific Regional Environment Programme for a contribution to conservation and sustainable development of coral reefs in the Pacific.

The Initiative for the Protection and Management of Coral Reefs in the Pacific (CRISP), sponsored by France and prepared by the French Development Agency (AFD) as part of an inter-ministerial project from 2002 onwards, aims to develop a vision for the future of these unique eco-systems and the communities that depend on them and to introduce strategies and projects to conserve their biodiversity, while developing the economic and environmental services that they provide both locally and globally. Also, it is designed as a factor for integration between developed countries (Australia, New Zealand, Japan and USA), French overseas territories and Pacific Island developing countries.

The CRISP Programme comprises three major components, which are:

Component 1A: Integrated Coastal Management and Watershed Management

- 1A1: Marine biodiversity conservation planning
- 1A2: Marine Protected Areas (MPAs)
- 1A3: Institutional strengthening and networking
- 1A4: Integrated coastal management

Component 2: Development of Coral Ecosystems

- 2A: Knowledge, monitoring and management of coral reef ecosystems
- 2B: Reef rehabilitation
- 2C: Development of active marine substances
- 2D: Development of regional data base (ReefBase Pacific)

Component 3: Programme Coordination and Development

- 3A: Capitalisation, value-adding and extension of CRISP activities
- 3B: Coordination, promotion and development of CRISP Programme

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COMPONENT 1A - PROJECT 1A4 (GERSA)

Integrated Coastal Reef Zone and Watershed Management

The purpose of GERSA is to foster the emergence of an integrated cross-cutting approach based on public policy tools and monitoring methodology and local-scale stakeholder dynamics. Ultimately, the goal is to have a scientific foundation and indicators suited to Pacific Island settings so as to set up country sustainable development observatory networks as part of the introduction of MPAs. GERSA is then a cross-cutting project relating also to project 1A2 (MPAs).

The project 1A4 is composed of 4 main activities:

- **ACTIVITY 1: SPATIAL APPROACH**
- **ACTIVITY 2: TERRITORIALITY AND SOCIO-ECONOMIC VALUES**
- **ACTIVITY 3: ENVIRONMENTAL INFORMATION SYSTEMS AND MODELISATION**
- **ACTIVITY 4: DYNAMICS AND MODELISATION OF WATERSHED**

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ABBREVIATIONS

AUF	Agence Universitaire Francophone
CBM	Community Based Management
CRISP	Coral Reef InitiativeS for the Pacific
EU	Environment Unit
FSPV	Foundation for the people of the South Pacific, Vanuatu branch
GEF	Global Environment Facility
GERSA	Gestion intégrée de l'Environnement Récifal: du Satellite à l'Acteur
GIS	Geographic Information System
ICM	Integrated Coastal Management
IRD	Institut de Recherche pour le Développement
MPA	Marine Protected Area
NGO	Non Governmental Organization
SPIC	Small Pacific Island Countries
SPREP	South Pacific Regional Environment Program

1. Introduction

Because of the more and more intricate web of stakeholders and users sharing natural resources, managing coastal environment has become all over the world a **governance** issue, meaning how concerned national, provincial and local institutions, governmental agencies and local communities organise, communicate and share decision making authority regarding environmental issues, when they do.

Thanks to long established administrations and adequate financial and human resources, developed countries have been relatively successful at developing such organisations, even if their efficiency is sometimes questionable. The same does not go by far for post-colonial developing nations, which generally face huge difficulties to train their managers for environment, to apply or even define consistent environmental policies, or to insure the necessary link between government and local populations.

In the case of Small Pacific Island Countries (SPIC), this situation is stressed by two additional factors. The first one is their small population size, which limits their potential human resources able to get involved in the environmental management process. The second one is their archipelago structure, which makes the management of scattered people and resources even more complex. An extreme situation of this kind is the Republic of Kiribati, one of the smallest countries in the world (811 km²) dispersed over 3,500,000 square kilometers.

All those reasons make it important to understand and evaluate what can help putting SPIC on the way to good – or better – governance regarding coastal and, by natural extension in SPIC, watershed management. This is the goal of the governance component that was included into the Coral Reef InitiativeS for the Pacific (CRISP) project and endorsed by a research program called GERSA, lead by the Institut de Recherche pour le Développement (IRD) in Noumea, New Caledonia. Within this framework and in view to contribute to the development of a future larger project funded by the Global Environment Facility (GEF), Vanuatu was chosen as a test site to validate some working hypothesis, and starting mid-2007, contact was taken with adequate people in the capital city, Port Vila. A field trip in Vanuatu with a view on governance issues followed in September 2007, preparing a longer six-month work starting February 2008. The purpose of this report is to present what was done during this study, and why.

We will start by giving some information about the CRISP and GERSA projects as well as two related institutions: SPREP and GEF, before getting into an overview of the Vanuatu

socio-economic context. Then we will explain our initial strategy towards better governance in Vanuatu, based on data sharing across institutions through a specific geographic information system. Next we will describe how we organised the work in Noumea and Port Vila to implement this strategy, and explain why it proved insufficient. Finally we will outline how we adapted to the situation by focusing on the people and on policies rather than tools, and what assumptions, conclusions and proposals we can provide for Vanuatu and the wider context of the whole Pacific.

2. The CRISP and GERSA projects

2.1. *CRISP*

The Coral Reef InitiativeS for the Pacific (CRISP) is a regional program of 20 projects implemented in 15 Pacific countries members of the South Pacific Regional Environment Program (SPREP). Its goal is to develop a vision for the future of coral reefs and people that rely on them for their living in the Pacific. It therefore intends to build strategies and projects for the preservation of the biodiversity and the development of economic and environmental services that coral reefs provide, at the local level as well as the global one. It is also designed as a vector of regional integration between developed and developing countries in the Pacific.

CRISP aims to:

- combine cross-cutting networking activities, local field projects and conservation and economic development objectives;
- combine research, management and development;
- combine the contributions of various scientific disciplines, including biology, ecology, geography, economics, sociology, law and anthropology;
- be active in all areas - land and marine - that have a bearing on the reefs, including watershed management and land tenure arrangements;
- avoid creating a new structure but, instead, make financial resources available to already active partners who indicate an interest in developing and consolidating their activities in a spirit of regional cooperation.

To achieve these goals, CRISP is structured in three components that include miscellaneous projects, as shown in Figure 1 below:

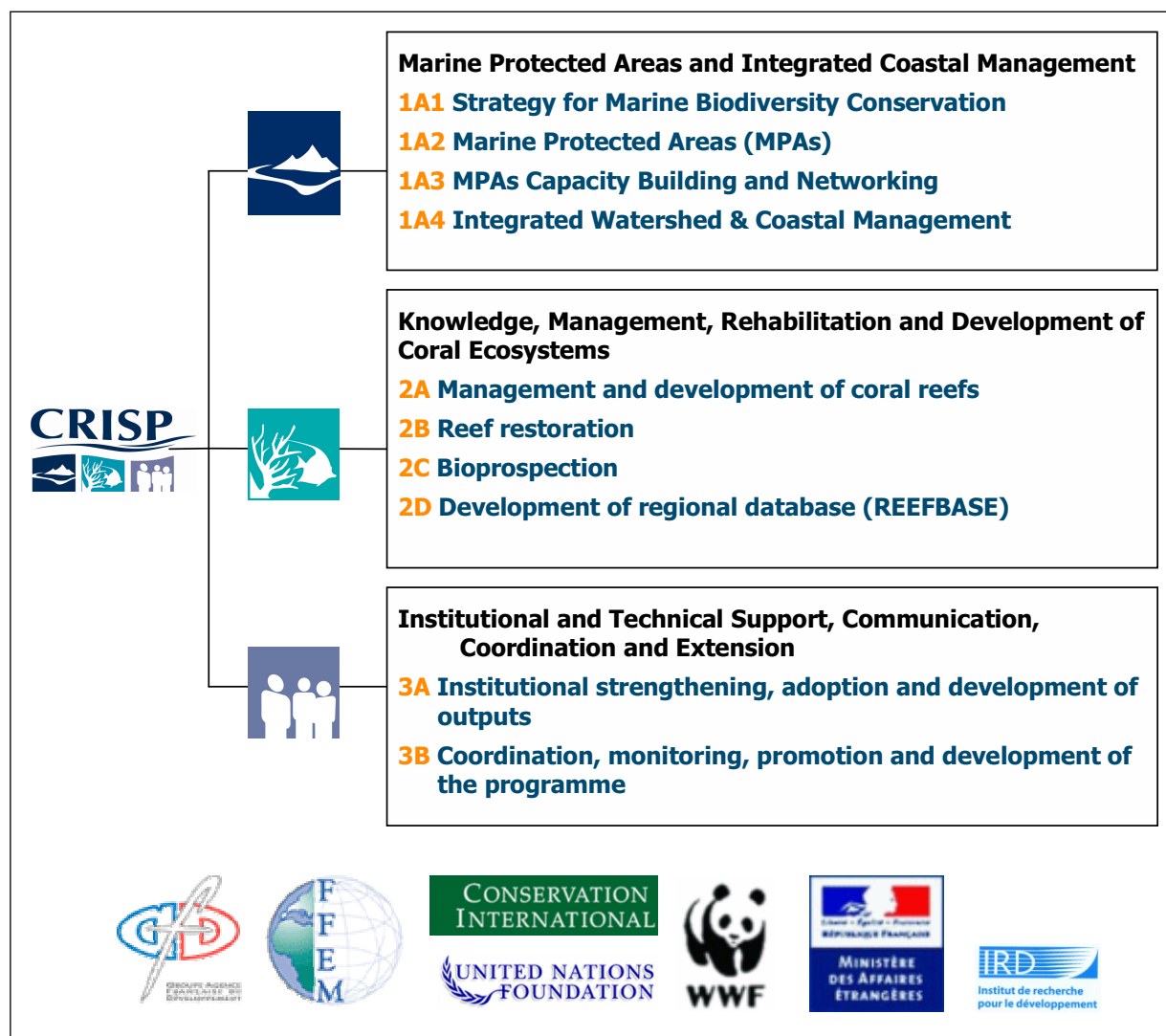


Figure 1: CRISP organisation and main partners

The CRISP coordination is under the responsibility of Eric Clua at the Headquarters of the Secretariat of the Pacific Community in Noumea, New Caledonia (for more information about CRISP, please check: <http://www.crisponline.net>)

2.2. GERSA

The GERSA project (acronym for the French equivalent of “Integrated Watersheds and Reef Environment Management: from the Satellite to the Stakeholder”), lead by Institut de Recherche pour le Développement (IRD) under the responsibility of Gilbert David, aims to develop methods and tools encouraging a better management of coastal zones in Pacific

Islands, through the integration, in sustainable development systems such as Marine Protected Areas (MPAs), of interactions between watersheds, reef shores as well as local stakeholders. This philosophy is summarized in Figure 2 below:

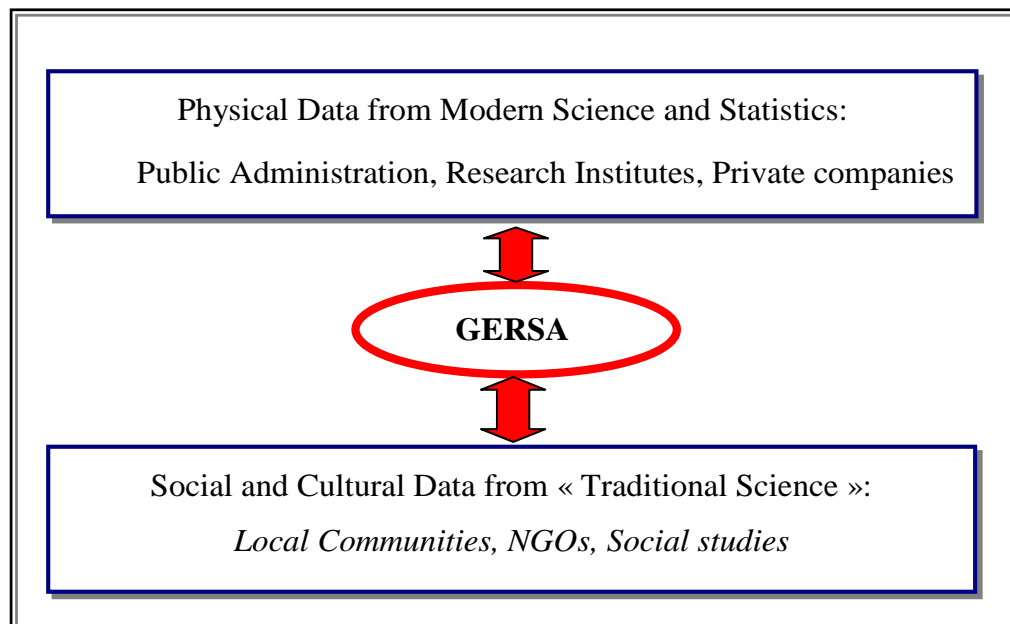


Figure 2: principle of the GERSA project

GERSA directly supports and enhances projects A2, A3 and A4 of CRISP component 1, and includes four work packages:

- 1 – spatial approach;
- 2 – integrated management of territories: territoriality and socio-economic value;
- 3 – environmental information systems and modeling;
- 4 – hydrological dynamics and modeling of watersheds.

The study described in this report was part of GERSA work package 2 and host by the ESPACE unit (for Expertise et SPAtialisation des Connaissances en Environnement) within the IRD centre in Noumea, under the supervision of Jean-Brice Herrenschmidt. The ESPACE unit – or US140 – aims at developing innovative methods for the spacialization of knowledge about tropical environment, through remote sensing and integrated approach, from data collection to decision process (for more information about US140, please refer to <http://www.espace.ird.fr>).

2.3. SPREP

SPREP (<http://www.sprep.org>) is a regional organisation established by 21 governments and administrations of the Pacific region to look after its environment. It has grown from a small program attached to the South Pacific Commission (SPC) in the 1980s into the Pacific region's major intergovernmental organisation in charge of protecting and managing the environment and natural resources. It is based in Apia, Samoa.

SPREP provided funds for the present study as well as the project operating budget in Vanuatu (10 000 USD), under the supervision of Caroline Vieux.

2.4. GEF

The Global Environment Facility (GEF) is a partnership among 178 countries, international institutions, non-governmental organizations (NGOs), and the private sector to address global environmental issues while supporting national sustainable development initiatives. It is the designated financial mechanism for a number of multilateral environmental agreements or conventions. As such GEF assists countries in meeting their obligations under the conventions that they have signed and ratified. GEF is also associated with many global and regional agreements that deal with international waters or trans-boundary water systems.

Today GEF is the largest funder of projects to improve the global environment. Since 1991, GEF has achieved a strong track record with developing countries and countries with economies in transition, providing \$7.6 billion in grants and leveraging \$30.6 billion in co-financing for over 2,000 projects in over 165 countries.

In relation with CRISP, GEF is preparing a project called "Ridge to Reef" that concerns 5 countries in the Pacific: Vanuatu, Solomon Islands, Federate State of Polynesia, Fiji and Palau, with analogue goals as CRISP. Although this project is, at the time of writing, still in preparation, the present study tried to keep an eye on elements that could contribute to "Ridge to Reef" in the future.

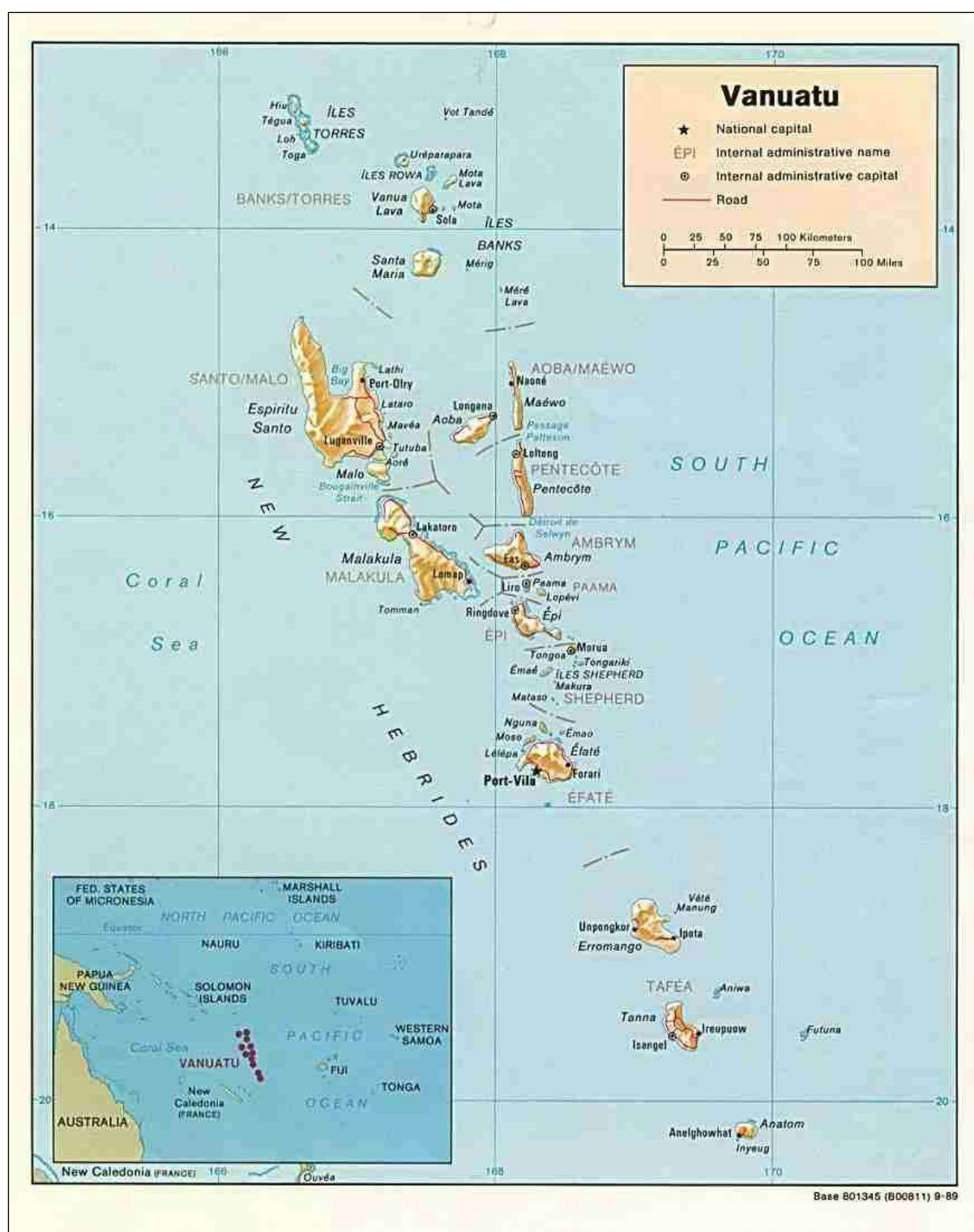


Figure 3 : the Republic of Vanuatu, formerly New Hebrides

3. Vanuatu, a Melanesian territory

3.1. The land

The Republic of Vanuatu is a Melanesian state located in the south-west part of the Pacific Ocean, 1750 km east of Australia, 500 km north-east of New-Caledonia, west of Fiji islands and south of Solomon islands. It is a « Y-shaped » archipelago of eighty-three islands of volcanic origin, with a total surface area of 14,760 km². Fourteen of these islands have surface areas of more than 100 square kilometres. From largest to smallest, these are Espiritu Santo, Malakula, Efate, Erromango, Ambrym, Tanna, Pentecost, Epi, Ambae, Vanua Lava, Gaua, Maewo, Malo, and Anatom (see Figure 3). The highest point in Vanuatu is Mount Tabwemasana, at 1,879 metres, on the island of Espiritu Santo.

Most of the islands are steep, with unstable soils, and little permanent freshwater. The shoreline is usually rocky with fringing reefs and no continental shelf, dropping rapidly into the ocean depths. There are several active volcanoes in Vanuatu, as well as several underwater ones, and volcanic activity is common with an ever-present danger of a major eruption.

The climate is sub-tropical with approximately nine months of warm to hot rainy weather and three to four months of cooler drier weather characterized by south-easterly trade winds. The wettest and hottest months are December through April, which also constitute the cyclone season. The driest months are June through November. Rainfall averages about 2,360 mm per year but can be as high as 4,000 mm in the northern islands (Torres and Banks).

The country is divided into six administrative provinces named according to the first letters of their main islands: Malampa (for Malakula, Ambrym and Paama), Penama (Pentecost, Ambae, Maewo), Sanma (Santo, Malo), Shefa (Sheperds, Efate), Tafea (Tanna, Futuna, Erromango, Aneytum), Torba (Torres, Banks).

3.2. The people

As nearby New-Caledonia, Vanuatu was first inhabited by Melanesian people, descendants of successive migrations from south-east Asia that started more than 40 000 years ago and progressively expanded to the whole Pacific. Europeans began to settle in the area in the late 18th century. In the 1880s France and the United Kingdom both claimed parts of the country and in 1906 they agreed on a framework for jointly managing the archipelago

through a British-French Condominium as the New Hebrides, an extraordinary complex situation that lasted until 1980 and the independence. A heritage from this period is the division of government and society along linguistic French and English lines, although the local Pidgin English, called Bislama, tends to be more and more used. Vanuatu also hosts around 20% of the language diversity in the world, through a multitude of local languages...spoken by less than 0.1% of the world population.

Today the population of Vanuatu amounts around 221,000 (estimation July 2008). The inhabitants, the Ni-Vanuatu, are in the majority (98.5%) of Melanesian descent, with the remainder made up of a mix of Europeans, Asians and other Pacific islanders. Most is rural, though the capital Port Vila, on Efate, and Luganville, on Santo, the two main urban areas in the country, have populations in the tens of thousands. Port Vila and Luganville, as many cities and countries in the Pacific, are experiencing one of the quickest growths in the world (Bonnemaïson 1996), revealing acute social issues and causing urbanization problems that have, when they are addressed, no answer yet.

In the countryside, as everywhere else in Melanesia, the traditional social organization is complex and based on the *clan*, the notion of village (or *tribu* in New Caledonia) being a colonial creation that corresponds more to a *parish*. Several clans can coexist in the same village, and a clan is dispatched throughout several villages in the same island or in neighboring islands. This network structure explains the important fact – when considering coastal and watershed conservation management – that customary land property is expressed less as boundaries than as *routes* between places to which each clan identifies. In this context, defining limits of, for instance, a protected area can be hard work...

Figure 4 below illustrates how, in Melanesian societies, several clans (colours, left) can coexist within a seemingly solid entity (the *tribu*), creating a very complex network of customary authority with other *tribus* (right).

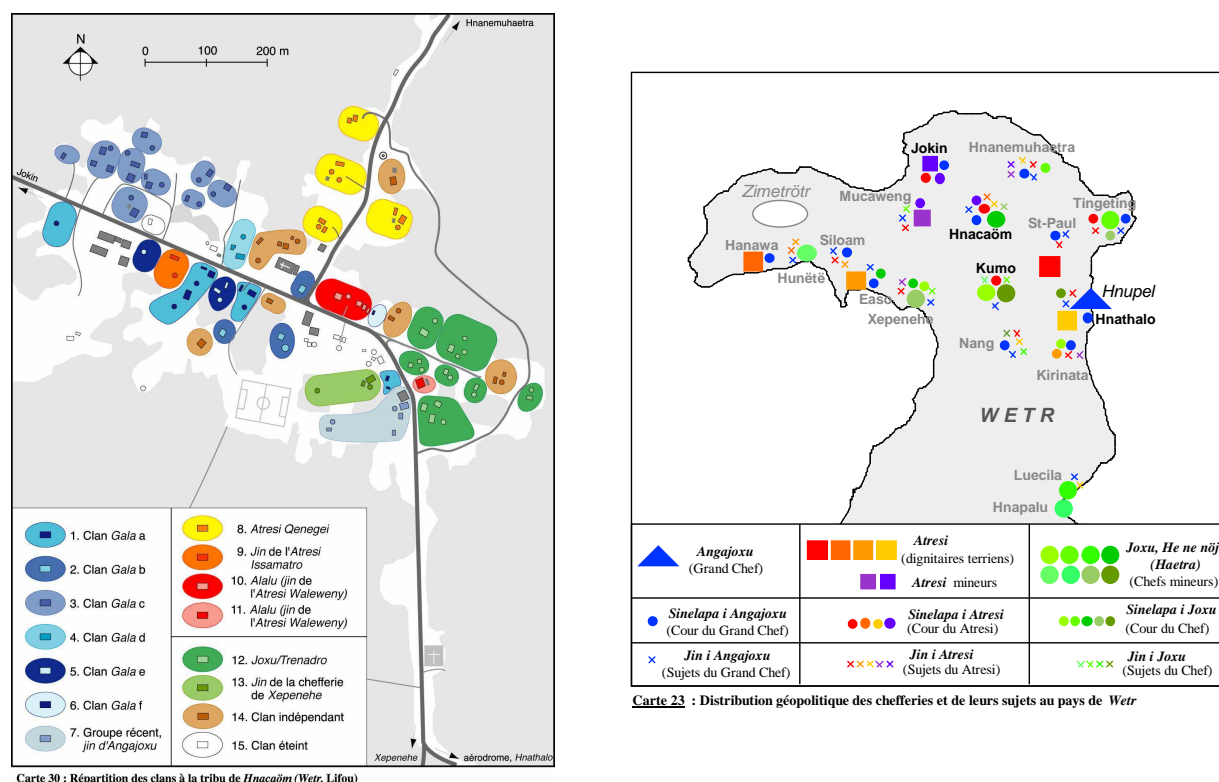


Figure 4 : the clan structure in Melanesian societies, the example of the Wetr district in Lifou (Loyalty Islands, New Caledonia) – Source J.B Herrenschmidt

Due to colonial times influence, Christianity, consisting of several denominations, is the predominant religion in Vanuatu. The Presbyterian Church, adhered to by about one third of the population, is the largest of them. Roman Catholic and Anglican are other common denominations, each claiming about 15% of the population. Others are the Seventh-day Adventist Church, the Church of Christ, Neil Thomas Ministries, as well as many smaller religious sects and denominations. Religion plays a very important role in everyday life of Ni-Vanuatu, especially rural ones, as church denominations structure villages and communities and tend to interact and even compete with ancient social structures.

3.3. The political system

Since the independence in 1980 and the first Constitution (built within 6 months from nothing or so), Vanuatu is a parliamentary democracy headed by a President who has, primarily, ceremonial powers. The Prime Minister, who is the head of government, is elected by the Parliament. He, in turn, appoints the Council of Ministers. The prime minister and the

Council of Ministers constitute the executive government. The Parliament is unicameral and has 52 members who are elected by Ni-Vanuatu. The national Council of Chiefs, elected by district councils of chiefs, advises the government on all matters concerning Ni-Vanuatu culture and language.

Provinces are autonomous units with their own popularly elected local parliaments known officially as provincial councils. Their executive arm consists of a provincial government headed by an executive officer who is appointed by the Prime Minister. The provincial president is constitutionally a member of the Electoral College that elects the President of Vanuatu. The provinces are in turn divided into municipalities (usually consisting of an individual island) headed by a council and a mayor elected from among the members of the council.

A very important feature of the Constitution is that 95% of land tenure, down to the coral reefs, has been given back to customary ownership, only special urban zones like Port Vila escaping this rule. This means that Vanuatu placed the customary land tenure at the heart of its society project, and that any decision regarding land property that is not taken with the agreement of a council of chiefs is bound to failure. Another consequence of this decision has been the multiplication of land disputes and law court congestion, village or island courts presided over by chiefs to deal with questions of customary law often being unable to fix ancient problems.

3.4. *The economy*

Despite the archipelago structure of the country and mainly due to the adverse coastal topography, people do not rely much on the ocean but turn to the land and the forest for their subsistence (Bonnemaïson, 1996), a trend illustrated by the impressive and famous land-diving custom that celebrates the yam harvest in Pentecost: the *Naghol*.

Accordingly economy is mainly based on small-scale agriculture and gardening (taro, yam, sweet potato, bananas, passion fruit, pineapple, lime, etc) and stockbreeding (poultry, pig). The roots of a plant called kava provide an anesthetic – but not addictive - drink that plays an important social role in the masculine population. Dried, it is exported to some neighboring countries and is a source of income for Vanuatu.

Fishing remains limited to small reef fish (on foot) and a few snappers when a motorized boat is available. Foreign fishing boats have the seizure of other offshore fishes such as tuna, including in territorial waters where there is virtually no surveillance (see Figure 5).



**Figure 5: the whole Vanuatu navy
in Port Vila¹...**

Except for a few noticeable exceptions where land is scarce or not suitable for gardening (for instance in the Maskelyne islands, south of Malakula), the exceptional ground fertility insures the basic food supply needed to survive and virtually no Ni-Vanuatu starves in a

¹ All photos in this report are from the author

normal year, although natural hazards (earthquakes, tsunamis, volcanoes, cyclones) can make life temporarily difficult.

Apart from vulnerability to natural disasters, economic development is also hindered by poor or inexistent transport infrastructures and long distances between constituent islands and from main markets.

Cattle farming for meat, renowned in the whole Pacific, and tourism, although still limited to a few accessible areas, are the other mainstays of the economy, along with offshore financial services: until 2008 Vanuatu did not release account information to other governments or law-enforcement agencies. A large number of ship-management companies choose to flag their ships under the Vanuatu flag, because of the tax benefits and favorable labor laws. Tax revenues only come from import duties and a 12.5 % VAT on goods and services, as there are no income tax, no withholding tax, no capital gain tax, no inheritance taxes, nor exchange controls.

3.5. Environment: actors and projects

Although Vanuatu witnesses few acute environmental problems compared to some neighboring countries in South-East Asia and Melanesia, some issues are a reality and a growing concern for the country. They are linked to development and urbanization, and are mainly located on Efate Island: nearly half of Efate customary land has now been taken up by leases (ELMA, 2007, ref [4]). This is gradually spreading out from the peri-urban area and along the coastal lands of Efate. The expansion of commercial logging is continuing to move upland to find suitable timber trees as many logged areas have been converted to coconut plantations or otherwise have not been replanted with marketable timber species. Likewise, the expansion of cattle production holdings is also moving upland to feed the cattle industry's needs.

Land available for communal use is also becoming scarcer, especially land suitable for subsistence vegetable gardening. With the population increasing, urban drift and no welfare support for those unable to work or find employment, there will be more pressure on the Chiefs as people must either move inland to find land to live on, become squatters on undeveloped land or make gardens on smaller plots of land. In addition, the increase in expatriate and domestic lease holdings, particularly along the coastal areas, is limiting the access of Ni-Vanuatu to land and resources.

Given what precedes, the following governmental agencies are in first line regarding environmental management:

- Under the Ministry of Land and Natural Resources (Russell Nari, Director General of Lands): the Department of Land, Surveys and Records (William Ganileo), the Department of Geology, Mines and Water Resources (Toney Tevi), and the Environment Unit (Trinison Tari, Acting Director). Land, Surveys and Records include two important sections regarding geographic data, the Mapping section (Harold Moly) and the Geographic Information System (GIS) section (Josiana Jackson). The Mapping section has a lot of aerial photography and recent topographic map (2005). The GIS section manages an Australian-developed and MapInfo-based GIS named VANRIS, the layers of which are in some cases “not very precise” (polygons not closed) and moreover not updated since 1997. Starting 2002, a “GIS user group” of more than 30 people was created across several government agencies, but the group is not very active now and mainly focused on technical issues regarding GIS. Moreover only the GIS section actually uses VANRIS, making it of little use for environment.
- Under the Ministry of Agriculture, Fisheries, Forestry and Quarantine: Agriculture, Fisheries and Forestry sections.

This organization is summarized in Figure 6 below:

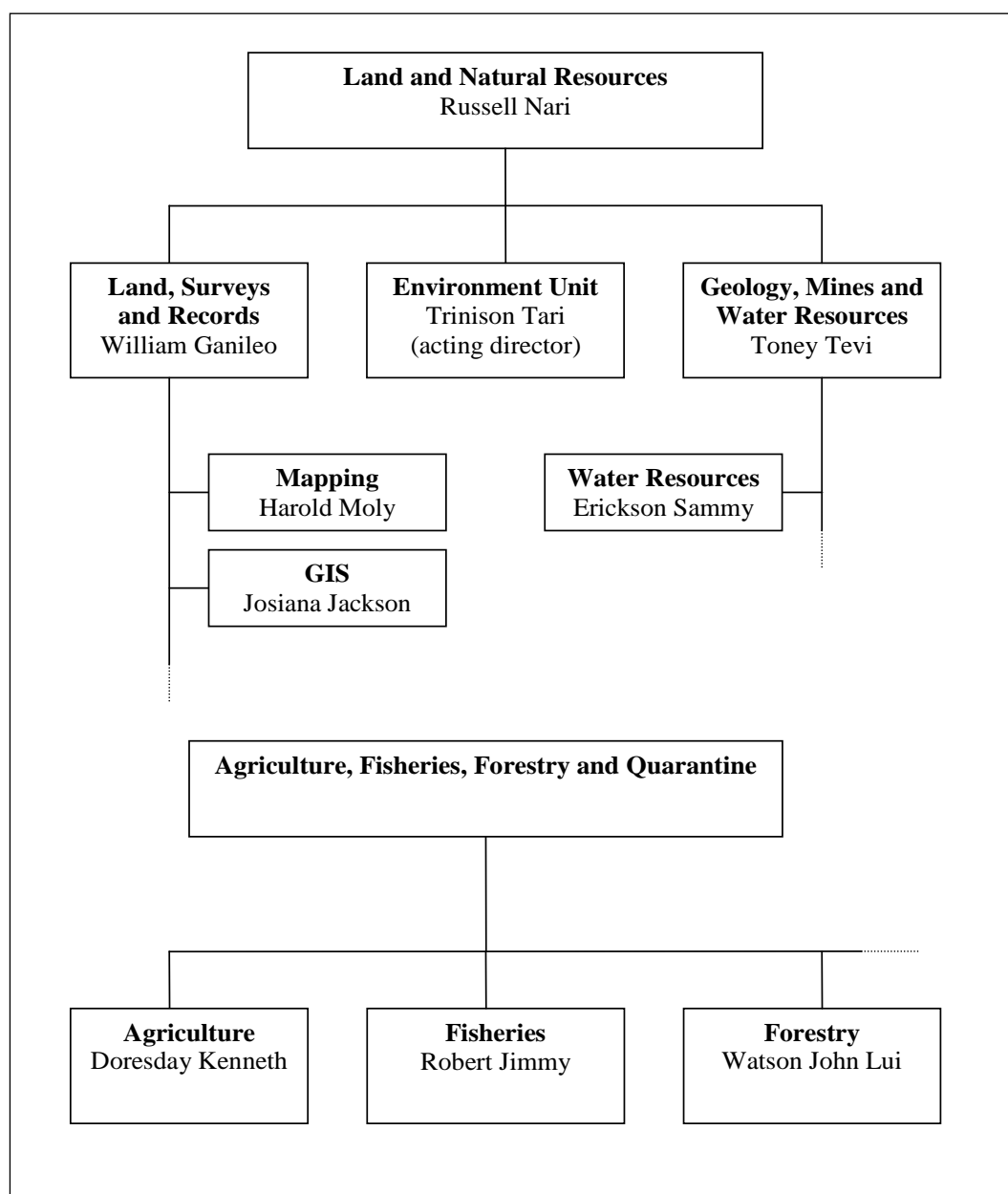


Figure 6: organization of governmental agencies in Vanuatu

Another important actor regarding environment is the Efate Vaturisu Council of Chiefs (EVCC, a college of Efate customary chiefs), who officially launched in 2006 the Efate Land Management Area (ELMA), an initiative aiming at protecting water resources and land from logging, farming and leasing in the central zone of the island, the Interim Boundary (see green part in map below, Figure 7). For the first time since independence, a conservation project is endorsed by customary authority (ELMA, 2007, ref [4]). Given the central place that custom

culture has in Vanuatu's society, this makes ELMA a project of major importance both for Vanuatu and for the GERSA project.

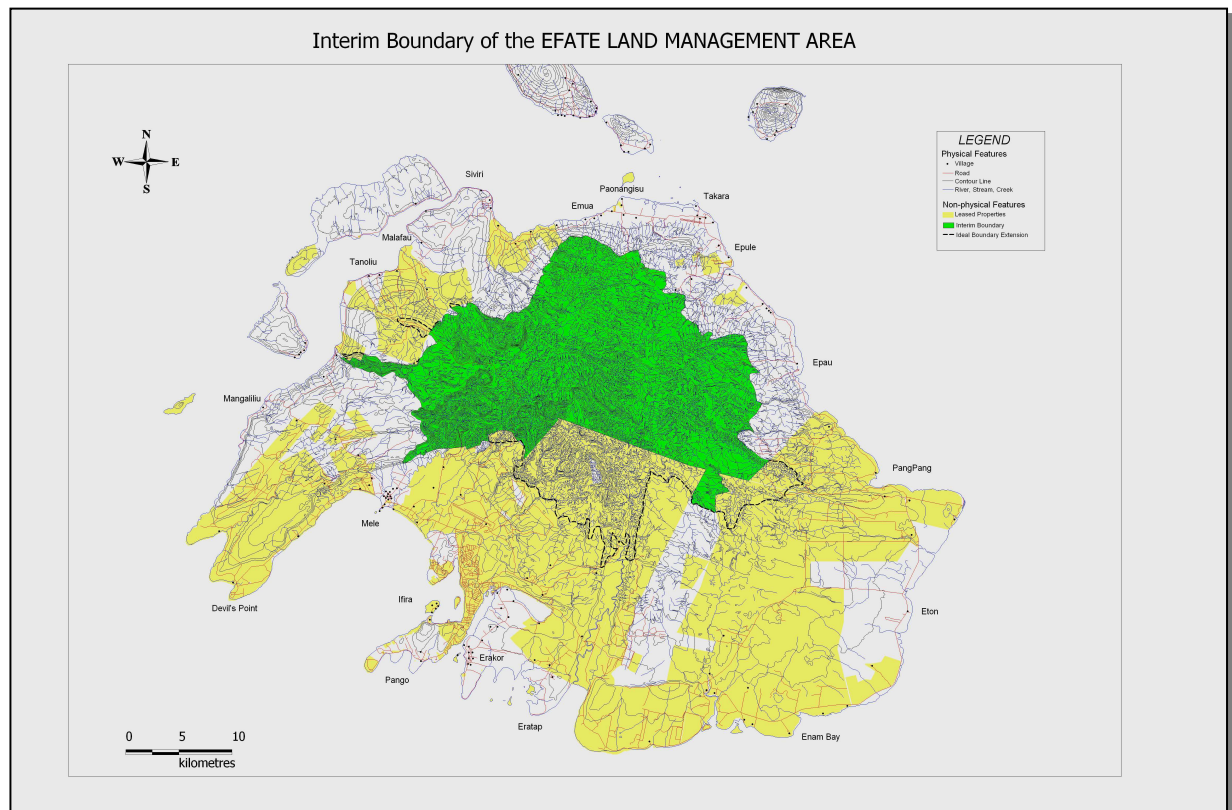


Figure 7: the ELMA initiative and the Interim Boundary (source ELMA project)

4. Actions towards good governance in Vanuatu

The aim of the six-month study described here was to evaluate what strategy could be developed in Vanuatu in order to help people working at institutional level organizing themselves and better manage the environment and natural resources. In this chapter we will precise which hypothesis we made, what we actually did - or tried to do - in the field, and what results we got.

We organized the study in three parts of equivalent duration: first part was mostly dedicated to a Noumea-based review of governance issues regarding Integrated Coastal Management (ICM) all around the world, with a special view on SPIC and especially Vanuatu; we also shortly visited Efate in order to make further contacts with relevant people as well as starting to evaluate governance at local level in the Paunangisu area, in North Efate. Based on this preliminary work, we elaborated an action plan that we tried to apply during the second part, which took the form of a two-month field work in Port Vila. Back to Noumea, we evaluated the progress made and adapted the work plan for the twelve-month period remaining before the end of GERSA project (June 2009). Those three phases are detailed hereafter.

4.1. Phase 1: literature review and first governance assessments

4.1.1. Literature review

Although governance issues regarding ICM are over-abundantly documented in the academic literature, very few papers try to deal with how to solve the problems, and only one (Lane, 2006, ref[2]) specifically deals with the case of Vanuatu, thoroughly examining how existing approaches to governance affect the management of coastal resources and environment in the country. Through a review of predefined governance indicators and based on interviews of government and non-government personnel as well as policy documents, this paper shows that a lot remains to be done in that matter. But its limitation to Port Vila-based actors means that only central government level issues are addressed, missing to target "vertical" relations of governance between government, provincial and local authorities.

In order to fill this gap and have a comprehensive view of the situation before taking decisions regarding governance, we performed a review (Vacelet, 2008, ref [1]) of governance issues regarding ICM, with the goal to assess whether ICM is successful or not at

managing coastal resources - and when not, why -, and to define the general trends of good or bad governance that are observed around the world, paying special attention to developing countries as well as SPIC. We will only remind the most important conclusions we came to regarding governance in ICM, which are that:

- delegation of power to NGOs is a high risk for governance when it is poorly or not controlled; this is particularly true in developing countries and even more in island countries with scattered and isolated projects;
- cross-communication and collaboration between governmental agencies that are - or should be - involved in environmental management is a key issue in that matter;
- the inadequate scale, both from geographic, temporal and institutional points of view at which ICM projects operate is often a cause of failure, in relation with the overwhelming importance of Marine Protected Areas (MPAs) in ICM;
- the notion of community itself can be vague, particularly in Melanesian societies, making it difficult to rely on Community Based Management (CBM) in ICM;
- developing countries, including SPIC, are not prepared to face the international pressure that powerful NGOs, banks and other funding organizations place on them, with the consequence that their own environment policies are often decided abroad.

4.1.2. *Action plan*

“Horizontal” governance, at government and governmental agencies level, is a major aspect of the problem we had to deal with. Based on the literature review described above, on the only document we could find about this issue in Vanuatu (Lane, 2006, ref[2]) and on observations made in Port Vila during previous missions in 2007, cross-communication between government agencies was identified as a key issue with regards to good governance in ICM, and it was decided to aim GERSA at helping to constitute a multidisciplinary steering committee at national level. The role of this committee would be, through gathering people with different knowledge and capacities from relevant agencies (Environment Unit, Forestry, GIS, etc), to evaluate any environmental project or issue going to happen in Vanuatu, as well as to decide which actions are to be taken and by whom.

To create this committee, the first idea was based on the assumption that sharing data across government agencies is a key issue. Accordingly we chose to work at improving data

sharing by using a GIS related tool being developed within the ESPACE unit in IRD Nouméa. This tool does not change the type of data a GIS produces but the way GIS layers are shared, through a characteristic called “interoperability”. Interoperability allows a user of a GIS to make his own data available to other users through Internet, while keeping full control of these data, which remain his property. It is enhanced through additional software layers, which, associated with a simple Internet navigator, provides an interface allowing to select available data (see Figure 8). As this tool would be focused on Efate (test site for GERSA) in a first stage, it was nicknamed “EFATIS” and will be referred as such in this report. Apart from the interoperability itself, another advantage of EFATIS is that it uses only opensource software (MapBuilder, Geoserver, Tomcat), making its use possible in a low financial capacity context.

In addition, a metadata² server was also planned for EFATIS, but available end of June 2008 only, therefore too late for the action plan below.

² Metadata are “data about data”, that is a description (date, origin, author, format, etc) of the data available in the GIS.

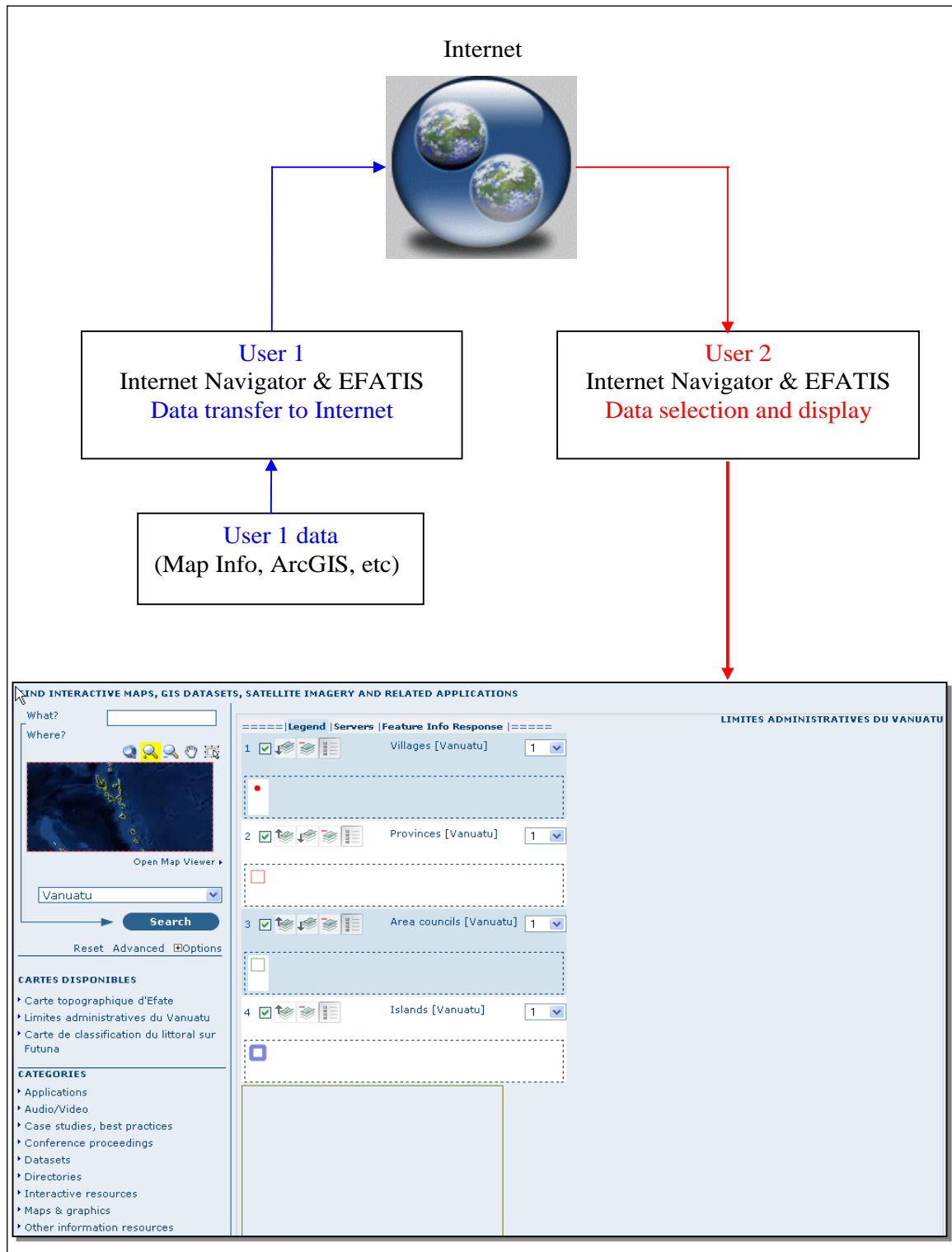


Figure 8: principle and interface of the interoperable GIS, allowing sharing data between User 1 (blue) and User 2 (red) over Internet

So the strategy we chose to develop in Port Vila was the following:

- Identification of potential members of the committee, among strategic agencies, departments and institutions such as Environment Unit, GIS section, Forestry, Hydrology, Statistics, Fisheries. Given the choice of EFATIS, we planned to rely on members of the already existing GIS user group. But considering the need to have a link with customary as well as provincial authority, we also decided to try to have someone from the ELMA project to represent the SHEFA province as well as linking with the Efate Vaturisu Council of Chiefs (EVCC). Having representative from other provinces, particularly SANMA or TAEFA, appeared to be necessary in order to extend the influence of the committee from Efate to whole Vanuatu.
- In parallel, installation of a prototype of EFATIS in two sites in Port Vila, for a first full-size communication and use test: one in the Land Department, which already shelters the VANRIS server, and the other at Agence Universitaire Francophone (AUF³). The aim of the AUF server was also to host some IRD EFATE-related layers (erosion and land cover) and possibly data of some private actors such as UNELCO (UNion ELectrique Coloniale, a subsidiary of Suez Company that provides water and power to Vanuatu).
- Identification, in collaboration with the steering committee members, of data and metadata that could or should be shared, for what benefit, and reshaping of these data for EFATIS if necessary.
- Evaluation of the relevance of the hypothesis.
- In parallel of all this, we would also try to further investigate the functioning of some important institutions for GERSA, such as the Environment Unit and ELMA.

³ AUF is a Montreal-based network of 693 French-speaking institutions providing higher education and research activities in 81 countries. It aims at training the future actors of the development and supporting research and scientific cooperation. The Port Vila antenna shelters an office and computer resources for three IRD scientists, as well as the bibliography of research lead by IRD in Vanuatu before the closure of the Port Vila IRD centre in the 1980's.

4.2. Phase 2: field work in Port Vila

Based on the strategy described above, we started on April 21st a field work based in Port Vila, until June 9th. We will now describe the results obtained with this field work.

4.2.1. Installation of EFATIS

4.2.1.1. Installation at AUF

Despite a warm welcome at AUF from Sébastien d'Ornano, who did his best to facilitate our work with Bosco Boukone, the technician in charge of installing the EFATIS prototype, this installation could not be completed on June 9th, when we left Port Vila. The main encountered difficulty was a late availability of new hardware components (meaning hard-disks blocked several weeks in Vanuatu customs) that prevented Bosco from starting as soon as wished. Bosco also did not have extensive time availability, as this was an additional task for him. But other issues indirectly hindered the whole process as well and have to be mentioned here. Firstly, the proposed IRD layers to be host at AUF were not fully ready, thus the immediate need for EFATIS was not obvious, making it delicate to put pressure on the installation process. And secondly, in the same line and with analogue consequence, we also encountered difficulties at identifying, with the future committee, relevant data to be host by EFATIS (this point will be further discussed at §4.2.1.4)

In this context, Bosco nevertheless managed to create a dedicated virtual server and disk space of 10 gigabyte – extensible if required - within AUF system. At the time of writing, the installation was still not completed, but all needed documentation from IRD had been provided to Bosco.

Moreover we had good contacts with the IRD team at AUF, in particular with Valérie Ballu, a geodetic specialist based in Port Vila. Valérie is trying to work with the Land Department, and she might be able to provide valuable information regarding natural risks to be put in EFATIS, such as a geoids map (gravity field), or earth deformation speed... She has been asked to keep in touch with IRD Nouméa about her progress.

4.2.1.2. Installation in Land Department

Installation of EFATIS software was even less successful in Land Department, as hard disks on the existing server were almost full with VANRIS and other data. The only solution

was to invest in a new one, and Land Department does not have the financial resources for that. In order to prepare an external funding for a new server, we worked with the person in charge, Matthew Temar – seemingly the only one in Land Department able to manage servers and the installation of EFATIS software – at evaluating the cost of updating this hardware. Unfortunately, Matthew encountered personal problems during the period, with low availability, so we were informed of this cost – around 5 000 € - too late (around mid-July) to be able to progress on the issue.

Nevertheless a meeting was organized between Bosco and Matthew, so that one can now contact the other in case of software difficulty.

4.2.1.3. Work with UNELCO

UNELCO has its own GIS, covering the Port Vila area up to the pumping stations. This GIS only includes UNELCO relevant data, which are water distribution and pumping networks. Sharing data with EFATIS is probably possible from a technical point of view. As UNELCO provided pumping data that IRD is trying to use to evaluate if the amount of pumped water is sustainable or not, it might be possible to negotiate with UNELCO the sharing of their GIS layers within EFATIS.

4.2.1.4. Efficiency of EFATIS

Despite an enthusiastic initial interest from concerned people in using EFATIS, difficulties to identify pertinent data to be put into the system were clearly felt and observed during talks and discussions we could have with them, suggesting that they were not fully ready to make an effective use of it. Main identified reason for this is that there was at the moment no concrete project they could rely on. In other words, EFATIS seemed to be coming a bit too early and could not actually play its expected federating role for the steering committee.

Otherwise, the principle itself of sharing data was not as much of a problem as expected: we attended on June 3rd the first - and probably unique - GIS user group meeting in year 2008. During this meeting a general agreement about sharing data inside the group was settled. While this is just a theoretical agreement that was initiated a long time ago (October 2005) and concrete sharing has not been observed yet, we felt that, from this point of view, EFATIS remained pertinent.

Those assessments led us to reconsider the interest of EFATIS: while there was still no doubt that EFATIS would contribute to linking environment stakeholders at government level, this most probably would not be sufficient to trigger the creation of the steering committee. We therefore needed to find other field of investigation to contribute to make concerned people work together. This will be discussed below in 4.3 of this report.

4.2.2. *Analysis of institutions*

In parallel with the work on EFATIS, we tried to complete as fully as possible our vision of the situation of the environment in Vanuatu, through informal interviews of miscellaneous actors or witnesses of Vanuatu's life in Port Vila and Efate. Although we learned a lot about recent Vanuatu history from people like Augustin Pheu, a Vietnamese fisherman working in Vanuatu since the early 1980's, Fabrice Modéran, a game fishing operator in Port Vila, Allan Noppert, the Australian owner of a resort located near Paunangisu, Rufino Pinoda, a geologist who has been living in Vanuatu for more than fifteen years, etc, the information we got was not directly enough related to governance, so we will concentrate, in this report, on the relevant information we observed or learned from some strategic Port Vila-based institutions: the Ministries of Land and Natural Resources and of Agriculture, the Environment Unit and the ELMA initiative.

4.2.2.1. *The Ministries of Land and Natural Resources and of Agriculture*

A striking characteristic of the Ministry of Land and Natural Resources is the fact that it is, a bit like the whole country, dispatched over three separate buildings within Port Vila. The main one, located downtown, shelters the Department of Land, Surveys and Records, and receives the public (see Figure 9). Not very far from it is a small building with the direction office (Russell Nari, General Director). But other departments, such as Water Resources, Mines and Geology or the EU, are approximately one kilometre uphill in a much downgraded building - called the "Pompidou" building (see Figure 10) – they share with other ministries, making it difficult for people to meet and work together. According to William Ganileo, head of Land, Surveys and Records, this situation is very penalizing in the day-to-day life, and somehow a paradox in the relatively small Port Vila.



Figure 9: the Department of Land, Surveys and Records building in Port Vila



Figure 10: the Pompidou building in Port Vila

The situation of Ministry of Agriculture, Fisheries, Forestry and Quarantine is a bit better, as Agriculture, Forestry and Quarantine are located in the same area near the international airport, which is nevertheless far from other governmental downtown-based agencies and services.

As far as we could observe, cooperation between those two ministries is very anecdotic and limited to some information given from time to time to the Environment Unit, meaning that, as foreseen, no global strategy exists to gather their strengths.

4.2.2.2. *The Environment Unit*

Regarding the Environment Unit (EU), the following assessments could be done through interviews of the few people that compose it, globally confirming the situation observed in 2006 (Lane 2006, ref [2]).

The EU is poorly staffed, in terms of how many people work there (one acting director, two technical and one administrative position). This is clearly not enough to cover all issues that arise in Vanuatu, so most of these issues are not addressed by the EU. Trinison Tari, the acting director, was nominated in March 2008, after 18 months of vacancy at his position. As a consequence, as far as WE could observe, the EU lacks the global picture of the environment in Vanuatu and there is no defined environmental policy for the country.

As expected, financial resources are also very low, and highly linked to foreign donors. Most of conservation projects are held and controlled by miscellaneous foreign organisations, mainly NGOs, the role of the EU being limited to authorizing the NGOs to develop projects without any further contact or control. As a result, the government has little or even no idea of what is going on in the field: for example the MPA set up in Paunangisu (North Efate) by FSPV (Foundation for the people of the South Pacific, Vanuatu branch) has no official existence at provincial and national level, and this can be a problem where customary land tenure and power seem to be key issues.

Among the few projects that the EU actually monitors, most are resource consuming and very far, in our view, from addressing the true environmental issues Vanuatu has to deal with: for instance, one may question the fact that the Lake Letas nature reserve in Gaua⁴, where threats to the environment are not demonstrated, has been permanently staffed for the last four years, while pollution problems are exploding in Port Vila and not addressed. In the same line, we observed that international volunteers are working in the EU at “improving environmental laws”, while Vanuatu clearly does not have the means to enforce the existing legislation. We also noticed that EU members spend much time - and funds - at attending

⁴ Gaua is one of the Banks islands, in northern Vanuatu.

Please refer to <http://whc.unesco.org/fr/listesindicatives/1974/> for more information about Lake Letas.

international conferences – such as the 2008 UN biodiversity conference held in Bonn -, for questionable benefits to the environment in Vanuatu. Our intention here is not to deny the utility of international conferences, but to highlight that multiplication of them causes important governance issues in a small country, even if this phenomenon is not new and Vanuatu is supposedly less affected than other countries.

Last, we observed a kind of gap between the EU and the GIS user group, the latter being “more focused on technical GIS issues than on problem analysis”, according to Trinison Tari. It does not mean that the two parties work separately each one on its side, but that a deficit of cooperation is at least felt and should be fixed, making once again relevant the idea of a steering committee or any equivalent structure.

As noted above about EFATIS, the absence of concrete project to rely on seemed to constrain the development of the EU. Facing this and the difficulties stakeholders have to identify projects to start with, we suggested to Touasi Tiwok (Biodiversity Manager in the EU) a project that could trigger the use of EFATIS and thus the creation of the steering committee. This project originates in the assessment that the EU has no global view of what is happening regarding environment in Vanuatu. The idea would be to map all ongoing environment related projects with relevant metadata (donors, amount of funding, duration, etc), be they controlled by a government agency, a NGO, a research institute or else. To do this, the EU would have to work in close relation with the GIS section, as well as other agencies like Forestry, Mines and Geology, Water Resources, etc. Apart from all the information that the EU would benefit from it, it would also contribute to reduce the gap between the EU and other GIS users. Touasi showed interest, but we felt, and the absence of progress during the following weeks confirmed it, that she was still lacking a formal policy framework at EU level and higher.

4.2.2.3. The ELMA Initiative

Two points make ELMA relevant in the framework of the GERSA project and governance issues: firstly it is managed at SHEFA province level, making it a potential link between the high (the government) and low (the villages) levels of authority, in other words the vertical governance. Secondly, as already noted, the implication of the customary chiefs through the Efate Vaturisu Council of Chiefs (EVCC) is fundamental for governance in a country like Vanuatu. It was therefore important to pay attention to this initiative and the way its management deals with the EVCC.

Glarinda André was appointed project director for ELMA in may 2007. Trying to understand how the project is managed and works, the main observation we made was that despite her good will and her commitment, and although she is helped in her mission by a very knowledgeable Peace Corps⁵, Glarinda has very few management experience and does not have the adequate background (she has nutritionist training). Moreover she is in her late twenties, so relatively young and has probably little authority when facing the older EVCC customary chiefs during the ELMA management committee meetings.

From this we drew two conclusions: i) that the ELMA management is probably too weak to make this initiative the success it should be and ii) that relying on this management in the GERSA project might be a problem if nothing is done to strengthen it.

4.2.3. *Towards a transverse department?*

On June 2nd, 2008, during the GIS user meeting in Port Vila, we learned from William Ganileo very interesting news about the project of creating a transverse department across Land and Agriculture ministries. The main idea would be to gather people from the GIS user group, including people from the EU, in a horizontal structure showing strong similarities with the planned steering committee: its members would hierarchically remain in their original department but would operationally report to this new department. There is no evidence for it, but it is very likely that the initiative of the steering committee might have triggered this project, implying that the strategy of GERSA makes sense.

While this is still a project and one can expect difficulties in creating a complex matrix organisation at government level in a low resources context, it nevertheless shows that environment stakeholders in Vanuatu are making theirs the idea of improving governance, and we decided to endorse this initiative as strongly as possible. Consequently we thought to make William Ganileo and Trinison Tari the key persons in the process of selecting who should be part of the committee, whatever the final structure it would have. As only William seemed interested, he remained and is likely to remain the privileged contact in Vanuatu for what happens next, as well as the probable head of the committee.

^{5 5} The Peace Corps is a United States federal agency that promotes world peace and friendship by living and working in developing countries. Since 1960, more than 190,000 people have served as Peace Corps volunteers in 139 countries. In April 2008, there were 114 Peace Corps working in Vanuatu

So we continued identifying with him the composition of the committee and at the time of writing the list was the following, based on the previous IRD field trips and on William's proposals:

- Touasi Tiwok (Environment Unit, Biodiversity Manager)
- Josiana Jackson (GIS Section Manager)
- Phyllis Kamasteia (Forestry Department, Project Manager)
- Liku Jimmy (Ministry of Education)
- Benue Lenge (Statistics)
- Erickson Sammy (Mines & Geology, Water Resource Manager)
- Glarinda André (SHEFA province, ELMA Project Manager)
- Godfrey Daruhi (PENAMA province)

Additionally to this list, at least two uncertainties remain: one is about Matthew Temar, in Land Department, who William hesitates to involve given his apparent demotivation; the other is about SANMA province, for which William is still looking for the suitable person. End of August William also asked to participate to the trainings, another sign of his commitment and good will.

4.3. Phase 3: corrective actions

Based on the assessments above and the relative failure of what we had imagined to do, we had to adjust and complete the GERSA strategy, and suggested taking the steps that follow to strengthen governance in Vanuatu. Those steps were organised in three directions: one about EFATIS, another one about people, and last one about policy. All aimed at creating a stronger link between people inside the national steering committee, whatever its structure.

4.3.1. Reviving of EFATIS

Even if EFATIS, as mentioned above, was not as efficient as wished to trigger the constitution of the steering committee, it remained a key element for GERSA and we therefore proposed to re-boost this tool. In agreement with the ESPACE unit (US140), it was decided firstly to fund, on a GERSA budget, the purchase of a new server for Vanuatu's institutions, and secondly to appoint, within the US140, a new trainee in charge of i) the completion of the EFATIS documentation, which lacks some formalisation, and ii) supporting

people at AUF and Ministry of Land and Natural Resources in the implementation and the use of EFATIS in Vanuatu.

We wrote a road map, explaining the situation and what remains to be done, for this trainee, who is planned to arrive at US140 around October/November 2008.

4.3.2. *Training people*

Given that EFATIS seemed not sufficient to fully enhance the proposed steering committee, we looked for other means to create a link between its potential members and focused on people themselves rather than their work environment. Talking with several of them, we tried to identify common characteristics and found the following:

- five to ten years of professional experience,
- higher education,
- relatively good technical background in their field,
- in position – or probably soon in position - of managing projects and people, but not or very shortly trained to management.

This last point gave us the idea of organising training sessions for the concerned people, focused on topics such as project management, team management and leadership. Goal of these trainings, particularly a theme involving one's personality like leadership, would be double: a direct one is to train people in a field in which they lack education; an indirect one is to have a pretext to gather the committee around non technical subjects and make its members better know each other, in a team building process.

For several reasons, it seemed fundamental that the trainings take place in Port Vila, in order i) to reduce the costs, ii) to place Vanuatu at the very centre of the capacity building process and show that much can be done and learned even if staying in the country, while on the contrary sending people abroad could have a psychologically negative impact on Ni-Vanuatu, and iii) to make them feel that the trainings are linked to their belonging to the Vanuatu public sector, with the view to encourage their staying in their position instead of moving to the private sector (which happened to one member of the GIS section, while we were staying in Port Vila).

The first contacts we had with concerned people about these trainings were very enthusiastic and comforted me about the relevance of the idea. In parallel we submitted the idea to SPREP through Caroline Vieux, who accepted to use the working budget for the

steering committee to fund the trainings. We therefore began to study means of implementing the trainings. An interesting opportunity appeared through the AUF, where Sébastien d'Ornano offered to insure training to basic approaches and tools in project management, based on a similar training he did a few years ago. This training would be held in English language, at no cost, in the AUF building in November and would last five half-days (program summary to be found attached to this report, as appendix 1).

As training to team management, leadership improvement and personal development requires slightly more advanced qualifications and thus a specialised organisation, we looked through the Internet for such training consultants in the Pacific. We found ten potential solutions, eight in Australia and two in New Caledonia. The New Caledonia ones being French-speaking only, we disregarded these options and concentrated on Australian possibilities. Among the eight, five proposed a program, all using group exercises and role games. Three of them offered a three-day training in November/December, at a cost under 10 000 USD (including transportation and accommodation of the trainer):

- Self Leadership International (<http://www.selfleadership.com>)
- Outdoor Insights (<http://www.outdoorinsights.com.au/>)
- Leader Academy (<http://www.leaderacademy.com.au/>)

Final choice will be SPREP's decision, with William Ganileo's advice. We clearly indicated our preference for Outdoor Insights, which seems more likely to adapt to Vanuatu culture, both through the choice of exercises and the strong personality of the trainer⁶. The Outdoor Insights program is attached to this report as appendix 2.

At the time of writing, the project management training was organised and planned for week 46 (November 10th to 14th) in the morning, each day, and Sébastien d'Ornano was informed of this schedule. Unfortunately, William Ganileo, who was asked to relay the information to the proposed steering committee and to the Vanuatu human resource department, has not been very reactive since mid-July. An IRD field trip from August 4th to 15th reactivated the process a bit. For the same reason, progress since mid-July regarding the organisation and selection of the leadership trainer has been minimal.

⁶ Bob Killip recently took part to an expedition to Everest, with a view – apart from reaching the top - to study how a team works in a difficult context. So one may think he really knows what team building is...

As this could give the initiative more weight regarding Vanuatu's institutions as well as being politically appreciated, and in order maybe to get additional funding that might be necessary for logistics issues (mainly meaning transportation and accommodation of one or two trainees from remote islands), it was also decided by US140 and SPREP to try to involve the French and Australian embassies in the project management and leadership trainings, respectively. Here again, at the time of writing, this has not been done, as more information is expected from William Ganileo regarding participants and choice of the trainer.

4.3.3. *Towards an environment policy in Vanuatu*

The other direction of progress is linked to the lack of a global policy to manage environment that we observed in Vanuatu. It started from a discussion we had with Trinison Tari about a sandstone mining project in Aore Island (south of Espiritu Santo), during which Trinison admitted he had no idea of how to tackle such a problem. From there we first imagined that inviting concerned people in New Caledonia and showing them how similar issues are managed in a neighbouring country would be of great benefit. For instance, the Goro Nickel mining project in South New Caledonia could illustrate how to approach such an issue and help Vanuatu deal with the Aore project. Also how Kanak communities were involved in the process of making the Caledonian lagoon a UNESCO world heritage site could be adapted to the Melanesian context of Vanuatu. In a first stage we identified the following concerned people in Vanuatu: Russell Nari, William Ganileo, Trinison Tari and Touasi Tiwok.

This idea was then developed with Jean-Brice Herrenschmidt and expanded to what could be proposed as a regional cooperation and institutional exchange between two countries in the Pacific, one managing environment in a somewhat "bottom-up" way (Vanuatu) while the other is more in a "top-down" strategy (New Caledonia). Moreover associating a French speaking territory with a mainly English-speaking country was fully in line with the philosophy of CRISP. This idea was proposed to SPREP and accepted, so we contacted New Caledonia's South Province environment department in order to have a first idea about the feasibility of the project. Here again we got an enthusiastic answer, with a proposal to expand the exchange to the issue of waste management.

Through its Culture Department, South Province is developing an energetic policy of regional cooperation, so our next step was again with South Province and Christiane Waneissi, head of Culture Department, in order to find logistical and political support as well

as a budget for the operation (estimation 3 300 € on the base of four invited people during three days). Early in September Christiane Waneissi gave her approval, so we were, at the time of writing, working with her to prepare the operation in 2009.

Russell Nari was contacted as well for a first opinion about such an initiative and, if interested, could be part of it, but no answer from him was available at the time of writing.

5. Conclusion and recommendations

During this six-month study we initiated and launched some actions that hopefully will improve governance regarding environment and natural resources. But this is obviously a very long process that will take years before giving results, and there is a high risk that it fails if a minimum support is not provided to Vanuatu's institutions. In order to ensure a proper follow-up of these activities, it is fundamental that efforts continue and adequate resource is allocated. In this respect, one can regret the general tendency to use more and more short-term trainees and contracts in research activities, limiting the necessary long-term views for such projects.

Nevertheless, an immediate and urgent step to be taken is to secure the organisation and funding of the mentioned trainings. If one is already scheduled, the other one still needs some precisions regarding dates, place, logistics and choice of the consultant. Moreover the list of participants is not definitive and needs to be discussed. All these questions make necessary extensive contacts with William Ganileo in Vanuatu, which we will continue to have until mid-October.

Evaluation of the trainings and how they contribute to federating the committee will be an important and compulsory stage, as the idea of the trainings is just a hypothesis that must be validated or invalidated. Ideally, evaluation of the trainings themselves should take place at their end around an open discussion with the participants. For the committee, we suggest a short mission in Port Vila in January 2009 in order to meet each participant and check his/her vision for the future. This mission could be the occasion to gather the committee for the first time and to revive, with an official launching, the project of mapping the environmental issues and activities in Efate and Vanuatu, as described in §4.3.3. Perhaps the project of transverse department (see §4.2.3) could be pointed out as well.

Particular attention should be paid to the institutional exchange planned between New Caledonia South Province and Vanuatu. Given the political agenda for 2009 in New Caledonia, it will be necessary to strongly impulse the collaboration with South Province, especially with Culture and Environment departments. Vanuatu authorities have to be convinced as well of the validity of the idea, and this might take some time. Of course the sooner is the better and it would have been preferable to start this initiative much earlier, but we suggest that organizing the meeting around February-March 2009 would be a reasonable schedule regarding the global governance project started in Vanuatu.

Regarding the GEF project that is being planned at the moment (see §2.4), it is probably too soon to draw precise guidelines at this point. Nevertheless, in the light of what we observed during this study, we can propose here some clues regarding the type of project that should be funded by “Reef to Ridge”. Many expensive environmental projects originate in the emergency to take into account changes such as global warming or rising sea levels, and this emergency sometimes makes these projects inappropriate, or at least questionable, regarding their results compared to what they cost. Yet much can be done for the environment with inexpensive projects not directly related to coral reefs or watersheds conservation, particularly when one thinks about governance. In this regard, we suggest, and this is just an example, that contributing to the construction of a new building in Port Vila to host the agencies and technical departments of the Ministry of Land and Natural Resources, and – why not – those of the Ministry of Agriculture, could be an efficient way to use funds.

Acknowledgements

Very special thanks to Caroline Vieux (SPREP), Eric Clua (CRISP) and Jean-Brice Herrenchmidt (IRD) for setting up a so interesting study so quickly...

Thanks also to all Ni-Vanuatu who gave some of their time to make this work possible and enjoyable.

References

- [1] Vacelet, V. (2008). Governance and Integrated Coastal Management in the Pacific Island Countries, 15 p. Literature review for IRD Noumea (provided as appendix 1).
- [2] Lane, Marcus B. (2006). Evaluating the governance of coastal resources and environments in Vanuatu / by Marcus B.Lane. A report for SPREP, Apia, Samoa. 25 p. (IWP-Pacific Technical Report, ISSN1818 – 5614; n°24)
- [3] Bonnemaïson, J. (1996). Gens de pirogue et gens de la terre. Les fondements géographiques d'une identité : l'archipel du Vanuatu (Book I). Modified publication of *L'arbre et la pirogue*. Orstom, Paris, 460 p.
- [4] Efate Land Management Area Initiative (2007). Background, Project History, & Description of Interim Boundary. Activity Report June 2007.
- [5] Kalontano, A., Vatu, C., White, J. (2003). Foundation of the Peoples of the South Pacific, Vanuatu. RETA 6065: Assessing community perspectives on governance in Vanuatu, a report for ADB.

Other Internet resources :

Vanuatu

- Wikipedia, the online encyclopaedia: <http://en.wikipedia.org/wiki/Vanuatu>
- The Vanuatu Daily Post : <http://www.dailypost.vu/>
- The ELMA history : <http://www.efateland.org>

Trainings

- Derek Stockley, Leadership and Management Training in Melbourne, Victoria, Australia: <http://derekstockley.com.au/courses/leadership-management-h.html>
- Leadership Management Australasia:
<http://www.lma.biz/Default.aspx?AspxAutoDetectCookieSupport=1>
- Leadership Training in Australia by The Leadership Academy:
<http://www.leaderacademy.com.au/>

- Team building and teamwork training for Australia with Outdoor Insights:
<http://www.outdoorinsights.com.au/>
- MaST Australia, a Melbourne based consultancy offering leadership training, management training and business short courses in and around Melbourne, Australia:
<http://www.mastaustralia.com.au/>
- Self Leadership International, provider of coaching, consulting and training solutions with specific experience in the Asia Pacific region:
<http://www.selfleadership.com/index.htm>
- Australian Business Training, training in leadership, management, sales and team building programs: <http://www.australianbusinessstraining.com.au/>
- Workwell Consulting Pty Ltd – Leadership Training, Facilitation, Expert Modelling and Strategic Planning: <http://www.workwell.com.au/whoweare.htm>
- Chambre de Commerce et d'Industrie de Nouvelle Calédonie : <http://www.cci-nc.com/>
- Salomon-Fraloz, Coaching - Formation - Évaluation – Conférence en Nouvelle Calédonie: <http://www.salomon-fraloz.nc/>

List of appendices

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Appendix 2: Outdoor insights leadership training contents

Appendix 1: Project management training contents

Training by AUF – Sebastien d’Ornano

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4. Aim of evaluation

Appendix 2: Outdoor insights leadership training contents

Vincent Vacelet
IRD Noumea

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RE: TEAM DEVELOPMENT PROGRAM IRD TEAM

Dear Vincent,

Thank you for your emails and answers to my questions. This proposal should be taken as a draft to act as the platform to work from till we get it right. Outdoor Insights' programs make a huge difference to it's participants by combining indoor theory with practical outdoor activities that allows understanding of the concepts. This in turn builds true team spirit and people management skills.

The required outcomes for the program :

- Enhancement of teamwork as participants learn more about themselves and the other team members' preferences, strengths and weaknesses using the Team Management Profile.
- The Effective Working as a team as better team and communication skills are gained.
- Greater Team Management Skills so projects are not stalled through poor team dynamics.
- Working closely together in a fun and stimulating environment, building greater rapport and trust and so develop stronger relationships.

LOGISTICS

- **The group** will consist of 10-12 participants.
- **Dates:** November 2008
- **Timings:** 8.30 am to 5.00 pm.
- **Suggested venues:** - TBD

PROGRAM DESIGN

The program will utilise a blended learning approach combining challenging group tasks, conference room style presentations, group discussions, initiative tasks, low ropes course elements and follow up actions. This approach ensures that the program is engaging and fun, something that Outdoor Insights believes is critical in order to develop a positive learning environment.

We have included the *Team Management Systems- Personal Profile (TMP)* and *Window of Work Values* profile in this program, as it will enhance the outcomes of the program. The tools are user friendly and addresses the needs identified. The participants can use the profile information every day to solve problems, avoid conflict, increase quality of communications and have better interactions with each other and their external customers.

Outdoor activities are specifically designed to help integrate content and really embed the learning so the TMP and WOWV is just not theoretical content but transferred into a valuable development tool.

The outdoor activities are also one of the most powerful methods of building team spirit, practising team skill concepts and team leadership principles.

Ample time will be devoted to reflection and debriefing of the experiences, and discussion of the learning that can be applied to the targeted training outcomes.

A very important part of the program is our set of follow up exercises that are sent out to all participants via email over the following months.

LEARNING PROCESS

Outdoor Insights programs utilise experiential learning concepts. This is based on the principle that the most powerful learning is gained through a process of experiencing, reflecting and gaining meaning and then applying the learning. In addition to experiential activities, content (theory) sessions are delivered to provide established models and processes can be practiced on the activities and the experience can be taken back to the work place and applied.

All activities are debriefed and take the form of:

DO the challenge or individual task.

REFLECT on what the team did.

CONNECT how this is the same/different to how we operate as a team in the workplace.

DECIDE on alternatives and improvements.

APPLY on next activity/stage

We pride ourselves on our facilitation skills to pull out of the activities highly useful information and observations that can help participants understand effective team dynamics and behaviour.

SAFETY CONSIDERATIONS

Our programs emphasize the physical and psychological safety of participants at all times. Rigorous safety procedures are followed on all activities. This style of program is assessed as very low risk.

Participation in all activities is on the basis of **"challenge by choice"**. Participants are recommended and encouraged to consider their own emotional and physical well-being and determine their own limits. While participation is encouraged anyone is free to withdraw or refrain from any activity at any time. Alternative vital, support roles are a facet of all activities.

A **Health and Release Form** is provided. It needs to be completed by all participants in order for us to maintain high standards of safety and provide personal care.

FEE STRUCTURE

All costs below are based up to 10 people. Outdoor Insights will provide one facilitator for this program.

Service	Price
Training fee \$2,150 per day x 3 days	\$6,450.00
10 Team Management Profiles @ \$138.50 per person	\$1,385.00
	\$7,835.00

In addition, we would require accommodation food & beverage for one Outdoor Insights facilitator on the evenings before and during the program; this is usually billed as part of your master account with the venue. Plus flights from Sydney return.

NEXT STEPS

Vincent, I would be delighted to talk you through the program design.

After approval of the program we will send you a confirmation contract to sign and an invoice for 50% deposit for the training component and 100% of the Team Management Profiles

We would need everyone's email address so we can administer the Team Management Profiles and WOWV three weeks before the program.

I look forward to this opportunity of working with the team from IRD.

Yours sincerely,

Bob Killip
Managing Director
Outdoor Insights Pty Ltd

Annexes:
Program
Activity Descriptions

PROGRAM

DAY ONE...TMP and activities

Times	Activity	Comments
9.00 am	Introductions and setting the scene	Overview of training content and flow of program.
9.15 am	Speed Ball	Ice breaker and lead into TMP session.
9.45 am	Team Management Profile (TMP)	Theory of TMP
10.20 am	M/Tea	
10.35 am	TMP session continues	Individual Focus
11.00 am	Rope Game	TMP focused activity.
11.30 am	TMP continues	Team Focus
12.30 pm	Lunch	
1.15 pm	Billy Lift Rotate	Two small teams working towards a common goal
2.15 pm	Dominoes	Lead into communication
2.45 pm	Communication session using TMP results	Workshop the Linking Skills communication notes to build individual communication style understanding.
2.15 pm	Wild Woosey activity	Activity needs a high level of personal confidence and ability to build trust quickly.
4.00 pm	Tuckman team development model	Forming, Storming, Norming, Performing questionnaire and workshop.
5.00 pm	Wrap up for day	

DAY TWO...WOWV and ground rules and activities.

Times	Activity	Comments
8.30 am	Ice breaker Group juggle	Fun co operation activity
9.00 am	Decontamination Unit	Difficult problem solving activity. Great for revision on using TMP as a task cycle.
10.30 am	M/Tea	
10.35 am	Sheep and Shepherd	Fun but powerful communication activity.
11.15 am	Window On Work Values	Session on personal work values using TMS WOWV profile report and a card sort activity that creates awesome dialogue amongst the team and identifies the way forward.
12.30 pm	Lunch	
1.15 pm	Window On Work Values	Continued
2.15 pm	Wheelbarrows	Detailed, multi team activity that required good project management skills and high level of co-operation and understanding of team dynamics and really brings out the work on team values.
3.15 pm	Individual Team ground Rules session	Session to put down on paper a set of ground rules that the team would like to work towards to make life at work more productive and pleasant.
5.00 pm	Finish for the day	

DAY THREE using outdoor activities to consolidate learning

8.30 am	Ice breaker	"Have You Ever" is a fun game to learn more about each other
9.00 am	Red Jelly Ferry	
9.45 am	Golden Thread	
10.30 am	Morning tea	
10.50 am	Rope Game Knot	
11.30 am	Widgets	
12.30 pm	Lunch	
1.15 pm	Wrap up session	Review ground rules, TMP and WOWV
3.00 pm	Skyscrapers	Full team activity to finish program. High-energy finish on a difficult activity.
4.15 pm	Program wrap up	
4.45 pm	Home	
Following month	Send out follow up material	

ACTIVITY DESCRIPTIONS

DAY ONE

SPEEDBALL (A fun, high energy “ice-breaker” activity that gets everybody involved and creates a positive start to the program)



Overview: A simple yet highly effective activity involving passing a ball between the members of the group in a set order and trying to reduce the time to complete. A fun icebreaker that introduces team concepts and provides plenty of interaction to use in a debrief.

Outcomes:

- Creativity and lateral thinking; ideas generation and planning.
- Getting clarity of task and adapting to approach to meet increased targets.
- Highlights the de-brief and review process that will be used throughout the experiential activities.

THE TEAM MANAGEMENT PROFILE



Understanding work preferences is a critical component in developing individual, team and organizational performance. Team Management Systems' Team Management Profile Questionnaire (TMPQ) is a 60-item assessment focused on enhancing understanding of an individual's approaches to work.

Based on responses to the TMPQ, the Personal Team Management Profile provides constructive, work-based information outlining an individual's work preferences and the strengths that an individual brings to a team.

Work preferences are explored in terms of:

- How an individual prefers to relate to others.
- How an individual gathers and uses information.
- How an individual makes decisions.

- How an individual organizes themselves and others.

The Personal Team Management Profile highlights an individual's major and related areas of work preferences, including information focused on:

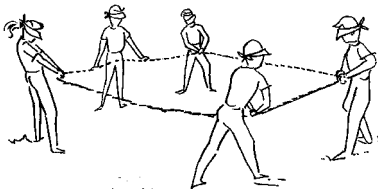
- Individual Strengths
- Decision-Making
- Interpersonal Skills
- Team-Building
- Essential information for developing individuals and teams.

In addition, Areas for Self-Assessment and Key Points of Note enable an individual to develop focused action plans and improve performance.

Participants will need to complete a 20-minute questionnaire as pre-work (easily arranged via email)



ROPE GAME



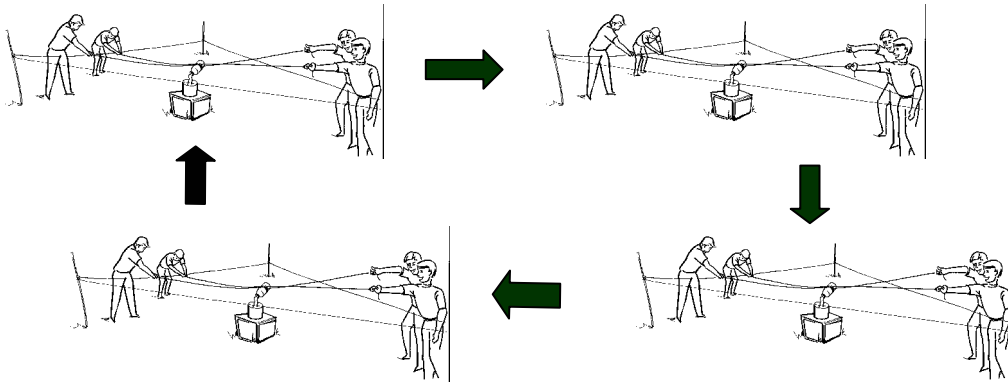
Overview: An activity that quickly identifies the strengths, weaknesses and opportunities in the team. This activity starts the group off on a fun note and gives participants the "tools" with which to build an understanding of team process and its barriers.

The Task: The large group is asked to form a square using a rope and themselves while keeping their eyes closed. This is followed by a debrief. Small teams then break off to use a smaller rope to form a square using the feedback from the debrief to improve the people process and task.

Outcomes:

- Highlights the difference between **Task & Process**.
- The need for team leadership.
- Active listening.
- Problem solving.

BILLY LIFT ROTATE



Overview: A three-stage problem-solving task based on retrieval and swapping vital equipment using limited resources and working to a project deadline. The activity needs small teams to share ideas and co-operate to gain overall success.

Outcomes:

- Assessing the problem and resources.
- Brainstorming and generating ideas.
 - Cooperation within and between teams.
 - Leadership and seeing the “big picture”.

DOMINOES

Overview: - An excellent activity that unpacks the essential skills of verbal communication in two stages. The task involves the team being split in half and having to transmit detailed information across a barrier. Sets up the team to move into the TMP communication session.

Outcomes:

- Establishing environment to support communication
- Use of appropriate words to the listener (avoiding jargon).
- Feedback skills (giving, receiving & accepting).
- Empathy (putting yourself in the other persons “shoes”);
- Challenging the process when it is not working.

WILD WOOSEY



Overview: This is a very powerful activity that puts into practice some key factors that contribute to high performance teamwork, particularly effective when the organisation is faced with change and planning goals!

A low wire element (two diverging wires 40 cms off the ground), two participants step up and onto the wires, facing and supporting one another. The 'wire walking' pair have to progress along the wires as far as they can without falling off, with other team members acting as catchers in position to provide support and encouragement. The task is physical in approach and the lessons are learned in a fun way!

Outcomes:

- Trust and support; coaching and giving peer feedback.
- Goal setting and benchmarks
- Intent to achieve and determination with a positive 'Can Do' attitude
- Working smarter not harder.
- Continuous process improvement and achieving 'stretch' goals.

Tuckman Model

The model looks at the stages of team development: *Forming, Storming, Norming & Performing.*

All teams move through these four stages hopefully moving to performing without too much pain. Each stage is important but some teams get stuck in the first three and never reach their full potential of the performing stage!

We will workshop the four stages so the participants understand the dynamics of team development and the managers can lead their teams through the various stages efficiently.

As part of this session we use the "Team Detective" a short diagnostic tool, used to help participants identify what stage their team is at and to highlight how individuals may have differing perceptions of how the team is performing!

DAY TWO

GROUP JUGGLE



Overview: An activity that is used to bring out basic team dynamics and leadership issues. The team will need to pass objects around the group in a set order with the objects being juggled between the team members increasing.

Outcomes:

- Creativity and lateral thinking; ideas generation and planning.
- Getting clarity of task and adapting approach in response to changes.
- Highlights the de-brief and review process that will be used throughout the experiential activities.

DECONTAMINATION UNIT

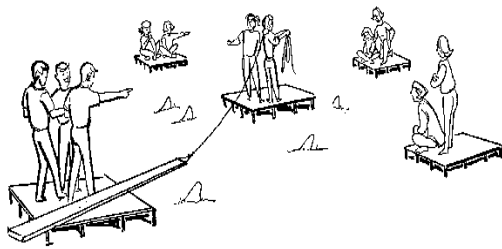


Overview: This is one of our toughest team activities and is totally engrossing! The task requires a lateral thinking approach to get started, then good planning to get all the team through the “unit” with the seemingly limited equipment provided.

Outcomes:

- The need to study resources and gather all information.
- Attention to detail.
- Lateral thinking.
- Leadership and coordination of the team effort.

THE SKYSCRAPERS



Overview: This task highlights the need for strategic planning and close co-operation between different departments, within the same company, working towards a common goal.

The Task: The participants are divided up and placed on five separate “buildings”. Using the equipment provided they are asked to make their way without falling into the abyss to another building of their choice, to be rescued by a helicopter at a set time.

Outcomes:

- The value of good planning
- The need to adapt to changing circumstances requiring flexibility in approach
- Clear communication
- Assessment of resources.

SHEEP AND SHEPHERD

Task: For the team (sheep) to be mustered through the gate by one Shepherd.

The team has a bag of 12 tennis balls during the planning stage. These balls are consumed each time a person speaks a breath worth. When the team runs out of balls the activity starts.

Once activity starts no one may talk including the Shepherd.

Sheep are blindfolded as soon as the last ball is used up.

The blindfolded sheep will be positioned in a random way around the paddock before the muster starts. The shepherd will also be placed in a position and then has to stay still.

Shepherd cannot touch any sheep. Remember the Sheep and Shepherd may not talk at all.

Outcomes:

- Really bring out the difference between introversion Vs extroversion expression.
- Helps participants reflect on the quality of their communication.

Often has very funny and good after lunch energizer.

WINDOW ON WORK VALUES PROFILE QUESTIONNAIRE

Values are concepts or beliefs which people use to guide their behaviour in the workplace. Values will drive our decision-making and cause us to summon up energy to preserve what we believe in. They go beyond specific situations and determine how we view people, behaviour, and events. Often major sources of conflict and disillusionment are due to mismatched values.

The Window on Work Values Profile is based upon responses to 64 items where respondents rate situations or activities at work that they value. The results are then processed to give a hierarchy of importance arranged around the Window on Work Values. The feedback indicates which of the following eight value types are fundamental drivers of their behaviour.

- **Compliance**
- **Conformity**
- **Collectivism**
- **Equality**
- **Empowerment**
- **Independence**
- **Individualism**
- **Authority**



One hundred percentage points are distributed around the Window on Work Values. If all value types were held equally then a respondent would have 12.5% in each sector. However this would be very unlikely. Most commonly two or three value types will be significantly above 12.5% and two or three will be below 12.5%, resulting in a hierarchy of importance.

The Window on Work Values Profile Questionnaire gives an extra insight into the behaviour of individuals and teams. It highlights potential conflicts within a team where, for example, some team members may value Individualism and Authority whereas others may value Collectivism and Equality. **Values operate at a deeper level within the human psyche and often explain why people with similar work preferences, as measured by the Team Management Profile Questionnaire, may have difficulty in working effectively in a team.**

The Window on Work Values Profile Questionnaire is an ideal tool for:

- Organizational Values Assessment
- Personal Learning and Development
- Values alignment interventions
- Development of team ground rules based on shared values

The Wheelbarrows



Overview: This is a practical, design and build exercise. Carried out in small teams but working together to reach a whole group project deadline! This activity is designed to look at communication issues, co-operation and leadership.

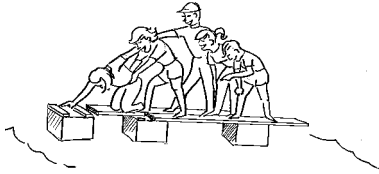
The teams are given identical resources to build a wheelbarrow using a minimum of 70 components. All wheelbarrows must be built identically and delivered to the meeting point at the same time. Teams cannot mingle together only one member from each team can walk between teams to co-ordinate the exercise.

Outcomes:

- The need for effective leadership to co-ordinate the task and keep the teams focused.
- Highlights the power of clear communication.
- Interdependence of team members working together for a common goal.

DAY THREE

Red Jelly Ferry



This is an entertaining activity with a problem solving twist. It needs the full cooperation of the team to succeed. The activity is useful for developing and practicing the use of a problem solving model, the observation of team dynamics, the development of teamwork tools, and the observation and feedback of a leader's "style". The "solution" must be repeated a number of times before the team cross the river, giving the opportunity for the team to "improve the process".

The Task: The team must cross a river of "Red Jelly" without touching the ground between the "banks of the river". The team is given the resources to build a ferry: 3 boxes; 2 planks; assorted ropes; pulleys etc. and a set of instructions for the activity.

Outcomes: General Teamwork principles; problem solving; attention to detail; continuous improvement; leadership.

The Widgets

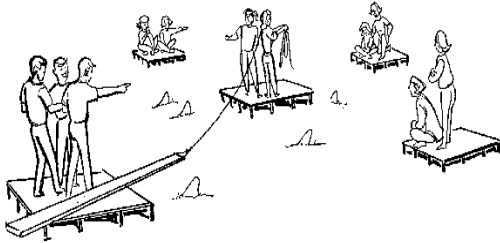
Overview: This high-energy breakdown and re-assemble activity creates a fun, engaging and challenging session. Played indoors with five members to a team and teams placed deliberately in view of each other, the session uses music to set the scene with Power Point flowchart instructions and debrief questions after each stage of the activity.

Task: - The "Widget" is made up of a frame 45cms by 20cms that is built out of plastic tubes and metal joiners held together under tension by elastic bungee cords. The frame must be dismantled and processed through a special hole in a board, and then reassembled in the fastest time possible! ***World's best practice is under thirty seconds.***

- Each team improves throughout the session trying to equal or better this benchmark?
- Activity is made up of several practice sessions and timed runs.
- The session builds to a dramatic finale.
- Outdoor Insights draws everyone's experience together with a clear message that shows the power of teamwork.

Outcomes from debrief: Teamwork, innovation, The need for co-operation, changing your mindset, the value of continuous improvement and the team processes needed to achieve world's best practice, and having to think "**out of the square**".

The Skyscrapers



Overview: This task highlights the need for strategic planning and close co-operation between different departments, within the same company, working towards a common goal.

The Task: The participants are divided up and placed on five separate “buildings”. Using the equipment provided they are asked to make their way without falling into the abyss to another building of their choice, to be rescued by a helicopter at a set time.

Outcomes:

- The value of good planning
- The need to adapt to changing circumstances requiring flexibility in approach
- Clear communication
- Assessment of resources.



Governance towards Integrated Coastal Management in Vanuatu

Abstract

Good governance, that is adequate organisation of stakeholders and decision makers, is a key issue regarding integrated coastal management, particularly in Small Pacific Island Countries who lacks human and financial resources to manage their environment. Taking Vanuatu as a pilot site, the study described in this report, jointly led by IRD and SPREP within the CRISP framework, aimed at evaluating what can help those countries towards good governance.

Identifying collaboration across involved governmental agencies as a common failure, we worked at creating a steering committee at national level in charge of environment issues. We relied on three elements to federate potential members of this committee: i) the use of an interoperable geographic information system ii) trainings to project and team management iii) institutional exchanges with South Province in nearby New Caledonia.

