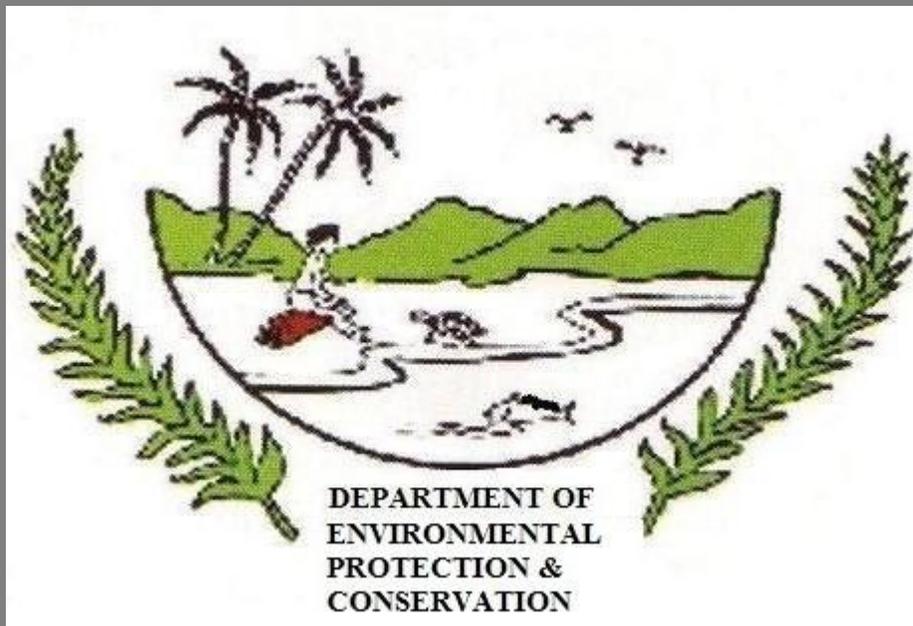


2012



# ANNUAL REPORT

SUMMARY FOR POLICY MAKERS



## ACKNOWLEDGMENTS

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The Department of the Environmental Protection and Conservation (DEPC) would like to thank the outgoing Honorable Minister of Lands, Hon. Steven Kalsakau, the Director General, Mr. Joe Ligo, and the Executive of the Ministry of Lands for the support it has provided in 2012.

The DEPC also acknowledges those organizations and government departments whose expertise has been tapped into again in 2012 to implement some of its activities in its Business Plan especially:

Department of Forestry	Department of Fisheries
Department of Provincial Affairs	Department of Quarantine and Inspection Services
Department of Energy	Department of Health, Environmental Health Section
Vanuatu Kaljoral Senta	Department of Geology Mines & Water Resources
Department of Lands	Meteorological Department
Department of Finance	Department of Strategic Management & Aid Coordination
Wan Smol Bag	Department of Customs and Inland Revenue
SHEFA Province	VANGO & GEF/UNDP Small Grant Programme
Department of Ports and Harbour	Port Vila Municipality
SANMA Province	PENAMA Province
TAFEA Province	MALAMPA Province
Live & Learn Vanuatu	

This year, the DEPC has had to carry out much of its duties with limited financial resources. Staff have demonstrated their creativity and commitment to serve the people of Vanuatu through the various environmental programmes they are managing as highlighted in this Summary for Policy Makers 2012.

Team members have represented Vanuatu with dignity in various regional and international forums relating to the multilateral environmental agreements that Vanuatu is party, such as the UN Convention on Biological Diversity (UNCBD), Climate Change (UNFCCC), Land Degradation (UNCCD), Montreal Protocol and the chemical related conventions such Persistent Organic Pollutants (Stockholm Convention) as well as Waigani Convention on Hazardous Waste.

The Director also joined the Hon Sato Kilman in the Rio+20 Conference on Sustainable Development in Rio, Brazil in June 2012 as a member of the Vanuatu delegation but also as the Pacific Islands Representative in the High Level Inter-Governmental Advisory Panel on the Global Environmental Outlook 5 (GEO-5) which was launched at the beginning of the United Nations Conference on Sustainable Development (UNCSD), the Rio+20 Summit in June 2012.

The regional organizations such as Secretariat of the Pacific Regional Environment Programme (SPREP) and international organizations (GEF, World Bank, UNDP, UNEP, ADB, EU, and AYAD) that have provided financial and technical support to the various programmes within DEPC are hereby also acknowledged.

We trust you will all continue to support the implementation of Strategic Action Plans concerned with Biodiversity, Persistent Organic Pollutants, Waste Management and Ozone Layer Protection.

*Albert Williams*

*Director*

*Department of Environmental Protection and Conservation*

# **1. DIVISION OF ENVIRONMENTAL CONSERVATION, PARKS, RESERVES & PROTECTED AREAS**

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The Division of Biodiversity and Conservation is responsible for the work programme on biodiversity conservation and all related projects within it as discussed in this sections:

## ***1.0 Conservation Programmes***

The Division has received a number of landowners and members of rural communities who have the interests in initiating community conservation areas and marine protected areas as well as those that have existing conservation initiatives but would like to have an additional legal support to work of conservation. The Division of Biodiversity and Conservation has recorded interests for work on nine marine protected areas around Epi Island; Dixon Reef as marine protected area on Melcoffee waters of Luganville, Santo; one terrestrial; marine protected area at South Pentecost, Marona conservation initiative from northwest Efate and Lelepa Island Tours Marine Protected Area.

Community Conservation Area Registration Regulation revised by DEPC legal volunteer, Ms. Brooke Griffin though consultation of the relevant by DEPC officers. It was completed by October 2012 and sent to State Law Office followed by email correspondences between Ms. Griffin and Louis Georges for finalization. An advice was received from SLO that a separate regulation is not required as most of the process set in the regulation itself is already covered in the principle Act the Environmental Protection and Conservation Act.

## ***1.1 Integrated Water Resource Management Demonstration (IWRMD) Sarakata Project***

DEPC through this Division is implementing the protected area establishment component of the Department of Geology and Mines' Sarakata IWRMD project since 2010. In yea 2011, two proposed conservation areas were initiated through the communities of Butmas and Nabauk which are the villages within the Sarakata Watershed. A draft management plan was developed in early 2012 for Butmas and Nabauk Conservation Areas followed by their review with respective communities from 27 to 31 August 2012. Added to these two communities, landowners of the main water sources of Sarakata River have shown interests to have their area conserved as well. An initial landholder's consultation was undertaken on 24<sup>th</sup> of August 2012 with south santo communities who have the land rights to the area. Two additional consultations were undertaken by IWRMD project management with DEPC Santo Extension Officer. The outcome of the consultations was not forthcoming which led to no progress to establishing an additional conservation area to the aforementioned conservation areas.

## ***1.2 Forest and Protected Area Management (FPAM) Project***

This is co-joint project between the DEPC and Forestry department. The project was developed based on significant conservation sites that are highlighted in the National Biodiversity and Strategy and Action Plan (NBSAP) as an environmental policy. The Senior Biodiversity Officer has worked closely with Forestry dept with the process for recruitment of the FPAM project coordinator. In mid 2012 a project coordinator was recruited. She was also involved in the project's inception workshop from 3-5 October 2012 by giving presentation on the national approach for legal registration of community conservation/marine protected areas as well as presentation on experiences of DEPC's Programme of Work on Protected Area (PoWPA) project.

### ***1.3 Mangrove Ecosystems for Climate Change Adaptation and Livelihoods (MESCAL) Project***

The Senior Biodiversity Officer provides supervisory role over the MESCAL project. She is directly involved with action research on Eratap and Crab Bay, Malekula focusing on mangrove associated fauna assessment. A report was produced separately for the project comparing to the forestry long plots work and marine fauna assessment. More detail report on MESCAL project activities undertaken in year 2012 is provided by its project coordinator below.

### ***1.4 Global Environment Facility (GEF) PAS Invasive Alien Species (IAS)***

DEPC commenced this project in year 2011 with a project coordinator on board until she resigned in September 2011 due to illness. During the coordinator's term a National Invasive Species Technical Advisory Committee (NISTAC) was established early September 2012 as part of the project activities. The committee members were composed of Quarantine, Agriculture, Forestry, DEPC, Fisheries, Farm Support Association (FSA) and Live & Learn representatives. NISTAC is chaired by Biocontrol Specialist of Quarantine Dept, Mr. Sylverio Bule. The project coordinator position was re-advertised twice for recruitment. The Senior Biodiversity Officer is overlooking the recruitment process for the Coordinator as well as updating the NISTAC on GEF IAS project correspondences with SPREP as the project's regional implementing agency. By early 2013 a new project coordinator will be on board.

### ***1.5 Programme of Work on Protected Area (PoWPA) Project***

This has not achieved any activities during this period due to not submission of the financial statement as requested by UNDP as its international implementing agency. Follow ups were made with the Programme Officer at UNDP for accessing remaining cash balance at UNDP in order to complete the remaining activities which include launching of management plans for Vatthe Conservation Area, Penoru Conservation Area and erection for the Epau Conservation Area sign board. The financial report is not well progressed due to busy schedule of the Finance and Administration Officer of DEPC. It is anticipated that the financial report from DEPC end will be completed by early 2013 and send to UNDP. The remaining activities for completion are likely to happen toward mid 2013.

### ***1.6 Critical Ecosystem Partnership Fund (CEPF)***

The government of Vanuatu was invited through representatives of two plant and animal taxonomists from the Forestry Dept and DEPC to participate in the Critical Ecosystem Partnership Fund (CEPF) by providing information on significant biodiversity species and ecosystems for Vanuatu. The information was used to map out the key biodiversity hot spots of Vanuatu. This is a programme that covers East Melanesian countries from the islands of Papua New Guinea, Solomon Islands and Vanuatu. The department of Forest Botanist and DEPC Senior Biodiversity Officer represented Vanuatu the regional CEPF meetings held at Papua New Guinea (2011) and Solomon Islands in April 2012. The Vanuatu consultations took place in Port Vila, Santo and Tanna. The University of Papua New Guinea, University of the South Pacific School of science and Conservation International are the main regional developing partners in this programme. Its funding comes from McArthur Foundation, Japan government, EU and Global Environment Facility (GEF). The programme document was developed covering areas for project proposal development and implementation. It is a programme that gears towards Non-government organizations and community based organizations. The programme is now open for implementation from year 2013 to year 2021.

## 1.7 National Biodiversity Strategy and Action Plan (NBSAP) Review Project and CBD 5<sup>th</sup> National Report

The Senior Biodiversity Officer has worked with United Nations Environment Programme (UNEP) by working on the 6 six required documents to access funds for Vanuatu's NBSAP Review project. The Director and Senior Education Officer were asked to review the draft final docs. The documents were completed including budget and was signed by the Director and sent to UNEP early December 2012. The project is anticipated to commence early 2013. The NBSAP review includes the preparation of Vanuatu's 5<sup>th</sup> national report to the Convention on Biological Diversity.

## 1.8 Scientific Researches

### 1.8.1 Gaua Freshwater Eel Fish Satellite Tagging

A research focusing on satellite tagging of freshwater eel fish, *Anguilla megastoma* on Lake Letas, Gaua from 13 January to 2<sup>nd</sup> of February 2012. It was a three weeks collaborated research with the Austria Institute of Marine Science, Norway.....and Estonia.....with funding from..... As part of the freshwater eel fish lifecycle is in the marine during spawning, the purpose of the tagging is to determine the spawning zone of the *A. megastoma*. It believed by freshwater eel fish specialists to be somewhere in the pacific ocean within the proximity either between north Fiji and Vanuatu or somewhere between Vanuatu and New Caledonia. Seven fishes were tagged; 3 *Anguilla megastoma*, 2 *Anguilla mamorata* and 2 *Anguilla obscura*. Satellite tracking of the tagged fishes showed that one species went right up to deep seas close to Tuvalu. Unfortunately all species did not show expected migration again predicted timeframe. It is assumed that they got predated during migration. The second phase of the research is proposed for March 2013. Reports from this research have been received by DEPC.



Finn Okland and Meelis Tambets tagging an *Anguilla megastoma* in a bush laboratory



Tagged *Anguilla megastoma*. Ready to be released in the deep ocean...5km away from Gaua Island.



Research Team are made welcomed at Jose's Togase's Guest House, Siriti, Gaua

### 1.8.2 Research on Vanuatu Storm Petrels

This research was conducted by Stephen Totterman and a bird specialist from New Zealand Te Papa Museum in collaboration with the Department of Environmental Protection and Conservation. The research was focus at Mt Tukusmera and Mt Milen area on Tanna Island. The research is to determine the population genetics petrels living on these two areas. Unfortunately the research was not fully accomplished due to disturbance of from nearby communities that thought they are also the rightful

owners of the mountains where the storm petrels live. The research was redirected to Santo Island on another sea bird species.

### **1.8.3 Research on Vanuatu Ants**

This research is a carried on research from 2011 ant research. In 2011 the research was focus on east Efate and eastern to northeast Santo. This year's (2012) research was focused on high altitude pristine mountains of northwest Santo in particular Penoru and Vunavai mountain ranges from 15 June to 10 July 2012. It is an academic research to determine diversity of Vanuatu ant species. It was by Dr. Christian Rabelling from Harvard University, USA in close collaboration with DEPC. Identification of specimens is still in progress and final report will be made available once all laboratory work is completed.

### **1.9 National Meetings and Workshops**

The Senior Biodiversity Officer also participated in a lot of national meetings and workshops that ranges from biodiversity related issues, mangrove ecosystems, conservation areas, climate change and disaster risks, watershed management and policy developments.

#### *Regional and International Meetings Attended*

The Senior Biodiversity Officer participated in the following regional meetings:

- Regional National Biodiversity Strategy and Action Plan (NBSAP) Review meeting held at Rotorua, New Zealand from 6 to 9 of August 2012. This workshop is organized and convened by the Secretariat of Convention on Biological Diversity, UNEP regional office in Bangkok and SPREP. The purpose of the workshop is to help countries to be ready for reviewing of the NBSAP and ensure wider mainstreaming of NBSAP into relevant national policies, strategies and action plans.
- Regional Preparatory Meeting for United Nation Convention on Biological Diversity (UNCBD) Conference of the Parties eleventh (COP11) that will be held in India in October 2012. It is a back to back meeting with the Rotorua regional NBSAP review workshop. It was conducted from 10-13 August 2012. It is organized and convened by SPREP. The purpose of the meeting was to prepare the country delegates to the COP11.
- Bio-discovery Seminar on Access to Genetic Resources and Benefit Sharing (ABS) from 19 to 23 November 2013, Griffith University, Brisbane, Australia. The meeting was organized and convened by the government of Australia, Griffith University, GIZ ABS Capacity Development and SPREP. The purpose of the seminar was to make Pacific Island countries learn of the long process in discovering an active agent from a biological resources right through to development of the agent into commercial products. It also allows organizations and institutions sharing their experiences on bio-discovery agreement arrangements with provider countries and user countries as well as the high technology are being used in the discovery process.

Like the previous years the field activities mentioned above is being funded by outside donor funding. There is no direct funding from the government budget for the activities.

# Summary of Climate Change Adaptation through the MESCAL Project (By Project Coordinator)

## Introduction

MESCAL (Mangroves Ecosystem for Climate Change Adaptation and livelihood) is a new Climate Change Program under the Department of Environmental Protection and Conservation (DEPC) that has been operational since October 2010. MESCAL is a research and development project whose primary aim is to encourage communities to conserve mangroves and the associated coastal ecosystems, by "...finding stakeholder-based solutions supported by scientific evidence and traditional knowledge..." (Mangrove EcoSystems for Climate Change Adaptation & Livelihoods, 2009)

The National Steering Committee for MESCAL selected two sites out of several potential sites. These sites had to meet certain criteria in order to be considered as a MESCAL site.

The two sites chosen were the Amal-Krab Bay, located on Central Malekula and the other is located at Eratap, on Efate. The Amal-Krab Bay mangrove site used to be a conservation project site for the DEPC under the International Waters Programme (IWP).

This report will present the activities that were carried out in the months of January to December 2012. Implementation of the MESCAL Projects activities began in 2012. The activities included an action research, a Socio- Economic study and a mangrove mapping at Amal-Krab Bay, the demonstration site for the MESCAL Project.

1. Community consultation
2. Meetings and workshops
3. Trainings for Technical group
4. Action research
5. Mangrove Mapping
6. Socio- Economic Studies
7. Legislation review
8. Ground truth of legislation review

## Mission

MESCAL works with communities to safeguard the mangroves for climate change adaptation and livelihoods maintenance.

## Objectives

The overriding goal and objective of MESCAL is to increase resilience to climate change for the people of the Pacific Island countries through adaptive co-management of mangroves and associated ecosystems, in each of the selected countries.

**The MESCAL Vanuatu objective:**

To safeguard and adequately manage the mangroves ecosystems for livelihoods and climate change adaptation for both the present and future generation of this nation.

## Administration and Finance

A total of 23 million vatu was made available to Vanuatu by the (International Union for Conservation of Nature) to implement the MESCAL Vanuatu project. This money is to be used to implement the project activities from 2011-2013, since Vanuatu did not start its MESCAL project till late 2010. Project funds are accessed through the Government Finance system, and the primary control of the release of funds rests with the IUCN Regional Office in Suva, Fiji. In order to have money released, the Project Coordinator must prepare a financial forecast for activities planned for the year.

By January 2012, the project balance for the amounts requested in mid-2011 was VUV3, 743,608. By June 2012, we had put in our next budget for the second half of this year 2012 and this second fund disbursement for arrived on August 2012. A total amount of 70,221 USD was deposited into the development account which is equivalent to VUV: 6,428,733 for MESCAL activities.

By late December, the project funds balance was VUV 845,000.

## Meetings and Conferences

### Meetings/Workshops/Conferences (National, Regional and International) Attended

Title of the Meeting/Workshop/Conference	Date	Venue	Organizer & Convener (Agency)	Purpose/Objective(s)	Outcome (If a training workshop, how does it build your capacity)
International Negotiations Skills training		VKS conference room	SPREP / DEPC		Enhanced skills in international negotiations
Vanuatu National Climate Change Summit	March 12-16	Vanuatu Agriculture College	VMGD		Understand what others are doing and also helped us to develop a booklet identifying different plants which can be used for coastal stabilization
Pre –COP RAMSAR	March 26-30	Koror Palau	RAMSAR/SPREP	Preparation towards the RAMSAR COP	Understanding the importance of wetlands management
Vanua-Tai workshop	July 16 – 20	Anglican grounds, Luganville Santo	Wan Smolbag Theatre	To introduce and make awareness of MESCAL project to resource monitors	Awareness
CRiSTAL training	July 23 – 27	IUCN headquarters Suva, Fiji	IUCN	Capacity building on aiding tools for extracting, organizing and analyzing of group discussing data	Better knowledge of running community workshops that will be reap as much needed info as possible

Ocean Governance	Aug 8 – 9	Meteo Conference room	Department of Foreign Affairs	Meeting with relevant stakeholders concerning national governance in Vanuatu waters	Extensive knowledge of EEZ
Socioeconomic training with Eratap volunteer assistants	Aug 16	DEPC	DEPC	To train the assistants on how to carry out survey in the communities using questionnaires	Trained assistants for Socio-economic survey at Eratap demonstration site
Amal/ Crab Bay data collecting trip	Sept 4 – 14	16 member communities of conservation area	DEPC	Introductory awareness of MESCAL project and objectives, to gather information for socioeconomic evaluation of mangroves in the conservation area	More experience acquired as to how to manage and run workshops dealing with different communities with different background livelihoods
Eratap data collection trip	Sept 24 – Oct 9	Eratap villages and stations	DEPC	Introductory awareness of MESCAL project and objectives, to gather information for socioeconomic evaluation of mangroves in the conservation area	More experience acquired as to how to manage and run workshops dealing with different communities with different background livelihoods
National Stakeholders Committee Meeting (NSC)	Nov 8	Forestry Department conference room	DEPC	Brief Update on MESCAL action research status, plus associating issues of concern including tension between surveyors and land owners and new mangrove ecosystem poster	More background information on MESCAL activities besides the socioeconomic-based area
Legislative Review	Nov 12	Forestry Department conference room	DEPC	Update on existing review made based on a desktop version of the constitutions governing mangroves in the Pacific, during the which consultants then had meetings with stakeholders to gather relevant info	Mangroves are a big benefit to nature and mankind but there is no governing policies or legislations that are specifically directed at mangroves

### **A Summary of Activities carried out from January 1<sup>st</sup> to December 31<sup>st</sup> 2012**

#### **Outcome 1: Collection and compiling of mangrove data and information**

##### **Climate Change Scenarios**

MESCAL Vanuatu has provided information to a consultant who is based at the PMU in Fiji to compile a report on this component of the project.

In May 2012, the staff of Departments from Fisheries, Lands, Forestry and Environment participated in a training workshop on Mangrove Ecological Assessments and Mapping. These training workshops were the first activities carried out in the action research for MESCAL Vanuatu.

## **Mapping**

Mapping is an important component of the project that must be carried out in order to calculate the rate of deforestation loss at the demonstration site. MESCAL Vanuatu has its own technical back-stopper, Mr. Tony Kanas, from the Lands and Survey Department. Mescal Vanuatu opted to use a local back-stopper so as to keep the mapping skills in-country rather than using an outside consultant. In order to carry out this activity, satellite imagery is necessary for the two sites. Project funds were expended to purchase satellite imagery for the Eratap site. The Forestry Department was able to provide satellite imagery for Krab Bay. The baseline map for mangroves at the demonstration site has been completed.

## **Socio-Economic Aspects of MESCAL**

Mr. Molu Bulu was recruited in July this year to work as the Assistant Resource and Environmental Economics Officer. He liaises directly with Mr. Nicolas Pascal to carry out the Socio-Economic component of the project as well as the Economic Evaluation of the Mangroves at the demonstration site. The Socio-Economic Assessment at the demonstration site has now been completed; data has been entered onto a data base that was developed by Mr. Nicolas Pascal. A final report on the cultural and traditional uses of mangroves will be developed from this data. With regards to this specifically, the REEA and the NCC have also collected information throughout the northern region of Vanuatu through the Vanua'tai resource monitors network.

To collect information on the uses and management resources within the mangrove ecosystems the socio-economic assessment was carried out at all 16 communities of Amal-Krab Bay and the 10 stations within Eratap village. It was done using a focused- group discussion workshop and household interviews.

## **Updating the mangrove species list**

From late February to early March, a Vanuatu Botanist, Sam Chanel travelled to New Caledonia to meet with herbologists for a mangrove species update. Sam Chanel and Dr. Norman Duke were able to confirm the species of mangroves present in both Amal-Krab Bay and Eratap ('ground truth of mangrove species' activities). This activity also included the collection of and identification of mangroves specimens collected from other sites on Both Efate and Santo (although these were carried out by other people). A draft list of mangrove species has since been compiled by the NCC, combining all information collected from all relevant sources; Dr. Norman Duke, Francis Hickey, World Atlas for Mangroves as well as information collected from the Forestry Department.

There are activities with IWRM project to carry out mangrove mapping on Santo. This will be done together with update of mangroves species list for Santo which will be done during December 2012 through to January 2013

## **Traditional Knowledge and Governance of Mangroves**

Collecting socio economic information through surveys and household interviews was the main activity that the socioeconomic team was tasked with, but integrated into these action strategies also, was an

additional objective: gathering information on traditional knowledge, practices and values of the people towards mangrove trees specifically.

Findings from these activities showed that livelihoods and cultural values towards mangroves outweigh that of its traditional practices and values enormously. Of the 16 villages surveyed in Amal-Krab Bay and the ten stations in Eratap, only two cases were found and even they seem to be dying out. Traditional or custom mangrove medicine is one, and this practice was found in three villages in Malekula with few people having its knowledge and rights passed down to them. The other is a symbolic form of traditional heritage that is only used in a custom marriage ceremony. The leaves especially are used here to symbolically tell the bridegrooms family where she is from.

Results therefore conclude that traditional knowledge and governance of mangroves have very little to no existence within these communities.

This activity was carried out to collect Socio- Economic data, however it has been reported in the villages and also from the data collection that mangroves are not managed traditionally as noted during the field work that mangroves do not have a traditional method of governing them. Therefore data collected were centered on the traditional uses of mangroves.

## **Outcome 2: Policy and Legislative Review**

Policy review ground truth was carried out in mid-November. The following are outcomes of the consultation that took place:

- Although there are various policies and guidelines from different government stakeholders, they are all still in their draft stages
- Foreshore development is highlighted as the major contributor to destruction of mangroves and the need for the EIA process to address the development issues is critical
- There is an urgent need for a mangrove management plan/mangrove policy and/or legislation to guide and ensure sustainable foreshore development
- A mangrove policy or framework that involves communities as resource owners, and takes into consideration their needs following a bottom-up approach is needed

The consultations also found that the complexity of the legal framework is compounded by issues such as:

- Lack of coordination and communication between the government departments that have authority to approve foreshore developments
- Weakness of land-use planning regulation and its adverse effects on mangroves
- The discretionary powers of Ministers which do not provide for transparent decision making process

## **Outcome 3: Strengthen mangrove management plans**

There are activities implemented at the demonstration site to achieve the projects goals and objectives. The activities include;

### **Action research at the demonstration site**

The activity was aimed at collecting information on the ground to help the project validate that mangrove ecosystems are an important means/way at which communities can build resilience to changing climate. In addition the data collected will enable the MESCAL project to develop adequate and appropriate policies to sustainably manage mangrove ecosystems for climate change adaptation and livelihoods.

### **Fisheries assessment**

The objective of this assessment is to conduct a rapid but representative survey of fish and mobile crustacean assemblages of Crab Bay as a first step to understanding the area's mangrove faunal biodiversity and fisheries resources.

There were 6 sites at Amal-Krab Bay and 3 sites at Eratap Lagoon where the study was carried out. The study was done using 5 different types of nets. At different times of the day which includes both highest high tide and lowest low tide.

### **Fauna Assessment**

The Senior Biodiversity Officer within the Department of Environment was responsible for the collection of information on the fauna species within the long plots. The assessment was done by observation.

### **Forestry Long Plots**

The objective of the forestry long plot is to conduct a rapid assessment to measure biomass and living content of carbon in a mangrove forest.

There were 15 long plots at the Malekula site and 12 at the Eratap site. The long plots method was used to carry out the forest assessment. Another assessment that includes the forestry team is the assessment of species within the sites. This was done by confirming species within the long plots and also observation within the site.

### **SVAM assessment**

Shoreline Video Assessment and Monitoring was carried out by the Survey Department and the Department of Environment using a video camera and GPS to map out the shoreline of the demonstration site. This is purposely for the monitoring of the site.

### **Mangrove Mapping**

The survey was conducted essentially to develop a precise boundary map of the mangrove vegetation at the demonstration site. And in achieving this, Dual Frequency GPS Receivers were used to attain differential GPS accuracy over long baselines.

### **Outcome 4: Awareness**

Awareness activities included a presentation that was done during the climate change Summit on Santo and a field to radio station on Santo where we explained which species of mangroves is favorable for stabilization of coastline and landscape formation.

One of the main awareness activities that was carried out this year was the celebration of Wetlands Day together with the Environment week. There were presentations, displays and a parade in town to promote the importance of sustainable resource management.

The permanent secretary for PMU visited Vanuatu, and he was taken to a site to talk about the importance of mangroves to the livelihoods of the people of the South Pacific in the hopes that we may receive more funding for mangrove protection projects in Vanuatu.

### **Challenges**

In January 2012, miscommunications between the Forestry Extension Officer in Malekula and the Amal-Krab Bay AKTE Management Committee resulted in a delay in the project activities, as well as some unforeseen expenditures for the project. A reconciliation ceremony organized by the DEPC, between the Amal-Krab Bay communities and the MESCAL project resolved these issues, and work on the project was able to resume work in the area by March 8 2012.

One possible issue to the Amal-Krab Bay site is that there may be a misunderstanding between the Lessor and AKTE Committee. Benefit sharing between the two parties seems to be very poor despite their initial agreement, and as a result, the Lessor has started to implement some strategies towards managing the Krab Bay site (without consulting the AKTE Committee?).

A meeting was convened between the Lessor and the NCC in July at the Amal-Krab Bay site which aided the NCC to better understand the issues surrounding the misunderstanding. Some possible solutions to the current arrangements were discussed with both parties.

It is important to note that this issue has to be dealt with very carefully as the life of the project on Malekula depends on whatever agreement and/or arrangements the Lessor has with MESCAL as well as the AKTE committee

# DIVISION OF SUSTAINABLE ENVIRONMENTAL PLANNING & DEVELOPMENT CONTROL

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## ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

### 2.0 Introduction to Environmental Impact Assessment

Over the last 12 months, this division has been dedicated to improving the way it performs its responsibilities and tasks mandated under the Environmental Protection and Conservation (EPC) Act, to effectively and efficiently address the increasing number of projects subject to the EIA process.

### 2.1 Objectives of the Division

- ❑ *The overall coordination and effective implementation of the EIA processes and procedures in the Vanuatu; and*
- ❑ *The overall implementation and enforcement of the Environmental Protection and Conservation Act (CAP 283) and related laws and policies*

### 2.2 Summary of activities undertaken by this division in 2012

Set out below is a list of activities and outputs undertaken by this division over the 12 month period from January 01 –December 31 2012 to meet its obligations under the EPC Act and EIA Regulations:

1. Monitoring compliance inspections conducted by the Department's EIA and Compliance divisions;
2. Site inspections conducted for every project site subject to a Preliminary Environmental Assessment;
3. Working with a range of government officers with relevant environmental knowledge and experience to improve the quality of information collected at site inspections and recorded in division reports (e.g. Geology and Mines, Water Resources, Physical Planning, Fisheries, Lands and SHEFA);
4. Preparing and updating a series of template documents to assist with the division's efficiency and consistency when carrying out the EIA process such as application forms, a PEA report template, other inspection reports and notices of determination;
5. Raising community and industry awareness about EIA, through press releases, Department open day, one on one consultation with individuals and letters to the Vanuatu Government Bodies and Real Estate Businesses as reminder about EIA laws;
6. Seeking legal advice on interpretation of the EIA provisions and other legal issues associated with EIA projects;
7. Finalizing the EIA enforcement and compliance guidelines;
8. Proactively mainstreaming significant environment issues into the EIA process such as climate change, protection of mangroves and sustainable development;
9. Drafting of Mangrove policy;

10. Responding promptly to complaints by the public ('dob-ins') received directly by the division;
11. Participating in regional workshops on Deep Sea Mining (DSM) in Nadi Fiji and Cities and Climate Change Initiative in Suva, Fiji.

### 2.3.1 Number of Preliminary Environmental Assessments (PEA) reports produced in 2012

There were **50 PEAs** produced in 2012.

### 2.3.2 Number of Environmental Impact Assessment (EIA) reports produced and reviewed in 2012

By December 31 2012, the Department had received 5 EIA reports. Of the 5 EIA reports submitted, 2 reports have been approved and 3 reports are pending approval as they require additional information to be submitted as requested by the EIA review committee. In addition, associated land issues and custom ownerships need to be clarified.

For every EIA report submitted, the division worked in cooperation with project proponents, independent consultants, other government bodies, the community and EIA review committee members to identify:

environmental, social and custom impacts,

-the significance of those impacts, and

-the most appropriate measures to take in order to mitigate or minimize those impacts.

## 6.0 Registration of EIA Consultants

There are five individuals who have been registered as EIA consultants under the new EIA regulation order 175 of 2011.

Three are registered as Principle Consultants, one is a Review Consultant and we there is now a registered Technical Consultant as shown in Table XX below.

Name of consultant	Address/contact details	Category of appointment	Area of Expertise
Iain Haggarty	Poppy's Lane PO Box 3591 Seaside, Port Vila, Vanuatu  Tel: 7714438/29879 Email: <a href="mailto:trianglevanuatu@live.com">trianglevanuatu@live.com</a>	Review consultant	Waste water, Land Use Planning,  Landscape & Visual Water quality
William Ganileo	C/- Lands Department PMB 9090 Port Vila	Principal Consultant	Land use Planning Social Impact

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## 3. DIVISION OF ENVIRONMENTAL PROTECTION

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This division oversees the implementation of pollution control programmes namely the National waste management Programme and the Chemicals and Ozone Action Programme in Vanuatu

### 3.1 Waste Management and Pollution Control

#### 3.1.0 Introduction to the Waste Management and Pollution Control Programme

The Waste Management and Pollution Control Unit has carried out several interesting tasks during this year 2012. These include finalization of the Pollution Control and Waste Management Bills, trainings, workshops/consultations, the Clean Pacific 2012 campaign and it has also continued in its implementation of the J-PRISM project. (Perhaps it is good to add in the introductory part that Ayako joined the Unit however temporarily. In it we can mention her job title and purpose for being here?)

#### 3.1.1 Objectives of the Waste Management and Pollution Control Programme

The main objectives for this year 2011 are:

- To finalize and begin implementation of the National Waste Management Strategy (NWMS)
- To develop draft legislations on Waste Management and Pollution Control
- To broaden capacity, skills and experience through waste management trainings
- To provide assistance in the implementation of J-PRISM project activities in Port Vila, Luganville and Lenakel

#### 3.1.2 Summary of Activities undertaken in 2012

##### *(a) Finalization of Draft Bills*

This year the Waste Management and Pollution Control unit has worked with the national State Law Office (SLO) to finalize the draft bills for Pollution Control and Waste Management.

The two bills form part of a review of waste management laws in Vanuatu, undertaken with the assistance of the Secretariat of the Pacific Regional Environment Programme (SPREP). The aim of the review was to formulate a sound administrative and regulatory framework for waste management that harmonizes new waste-related laws with existing laws.

The objectives of the Pollution Control Bill are to:

- Minimize and manage the discharge of air and land waste pollutants, the emission of noise, odor and electromagnetic radiation into the environment;
- Minimize the adverse effects of pollution on human health and the environment; and
- Encourage all levels of government to work together to control the discharge and emission of pollution.

The government proposes to achieve these objectives by:

- Requiring owners and occupiers of property to take reasonable and practicable measures to prevent or minimize the discharge of waste and the emission of noise, odor or electromagnetic radiation from their property;
- Establishing a permit regime for owners and occupiers who wish to cause or increase the discharge of waste or pollution, or the emission of noise, odor or electromagnetic radiation from their property;
- Empowering the government to issue pollution abatement notices in circumstances where pollution is being or is likely to be discharged or emitted from premises into the environment;
- Establishing offences for the discharge and emission of pollution from premises of owners or occupiers of property, that unreasonably interferes with the health and/or environment of others; and
- Delegating enforcement powers to Municipal Councils and Provincial Government Councils.

The purpose of the Waste Management Bill is to

- provide a sound legal basis to implement a more effective waste management system,
- clearly define roles and responsibilities for waste collection and disposal, and
- encourage cooperation between all levels of government and private waste operators.

The scope of this Bill includes solid waste, bulk waste, septic and sewage sludge wastes, quarantine waste, and any other matter or thing determined to be waste in accordance with the Act. The bill does not include liquid wastes (such as raw sewage and other waste waters) or gaseous wastes.

Fortunately the Pollution Control Bill has been listed for tabling at the March 2013 National Parliamentary session.

### ***(b) Trainings***

There were two training opportunities that were offered this year.

The first training was attended by the Waste Management and Pollution Control Officer. The training was held in Shibushi City in Japan from 19<sup>th</sup> August to 05 September. The training was on “Promotion of Shibushi Model on Waste Minimization from the Republic of the Fiji Islands to Pacific Island Countries”.

The main objective of the training was to understand the concept of “Mixture produces waste, separation produces resources”. The training allowed participants to observe the actual conditions of household discharge, visit intermediate treatment facilities, kitchen waste compost making plant and the final disposal site.

Participating countries for this training included; Fiji, Federated States of Micronesia, Solomon Islands and Vanuatu.

***Training participants for the Waste Minimization training in Japan***

The second training was attended by the JICA JOCV Ms. Ayaco in Nadi Fiji from 19<sup>th</sup> to 23 November. This regional training was on 3Rs (Reduce, Reuse, and Recycle) and composting. The training was organized and facilitated by the JICA J-PRISM Project from Samoa.

***(c) Workshops/Consultations***

***(i) Workshops***

The Waste Management and Pollution Control Officer attended two workshops this year.. The first workshop was a survey workshop conducted in Suva Fiji on 26 September regarding the survey of reverse logistics on recycling materials.

The purpose of this survey is to collect the necessary data to consider a project on circulation of recycling materials by utilizing “reverse logistics”. The project will be in coordination with recycling-society programmes which JICA has conducted in the Pacific Region, as represented by J-PRISM (Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries).

More precisely, basic data of material flows from import to export or disposal in the Pacific islands will be collected, and then the feasibility of a reverse logistics network with port development in view of promotion of the recycling business in the Pacific Islands will be determined. Furthermore, the survey is going to identify problems with creating a recycling oriented society in the Pacific Islands. These outcomes will also be reflected in the coming waste regional strategy (targeted years from 2015 to 2025) established by SPREP.

This study is conducted in the Pacific Island Countries (PICs) and covers the five countries of Fiji, Samoa, Tonga, Tuvalu and Vanuatu. These countries are members of SPREP.

***(ii) Consultations***

On May 30, a consultation meeting was held at the Shefa Province conference room with relevant key stakeholders for the discussion of the Pollution Control and the Waste Management Bills. The consultation meeting was attended by national key institutions of waste management both from Government and Non- Government Organizations.

The points raised during the consultation have assisted the department and SLO to finalize the two draft bills by July. Although the Pollution Control Bill was listed to be tabled in the August sitting of the National Parliament, it was not discussed. As mentioned earlier, this Bill is now earmarked to be discussed in the National Parliamentary sitting scheduled for March 2013.

***(d) Clean Pacific 2012***

Clean Pacific 2012 is a campaign for action against waste and pollution which was endorsed by the 21<sup>st</sup> SPREP Meeting in Madang, Papua New Guinea in September 2010. The campaign has been highlighted

as an implementation activity in the Pacific Regional Solid Waste Management (SWM) Strategy 2010 – 2015. The broad aim of the campaign is therefore to use an integrated communications approach to help achieve the goal and objectives of regional waste management and pollution prevention strategies, specifically, the Pacific Regional SWM Strategy (2010 – 2015), and the Pacific Ocean Pollution Prevention Programme (PACPOL) Strategy 2010 – 2014.

Ms. Ayaco is a JICA JOCV volunteer who is based at the waste management and pollution control unit has undertaken environmental and waste awareness education especially on 3 Rs (Reduce, Reuse, and Recycling) and composting. This year as part of the Clean Pacific campaign she has conducted the 3Rs awareness campaign in 17 schools around Port Vila.

*JICA JOCV, Ms Ayaco Nishikawa educating students of Tebakor College on 3Rs*

Other nearby villages on Efate such as Tanoliu has also participated during this year's Clean Pacific Campaign by organizing clean up campaigns with their youths.

*Tanoliu Village Clean Up team*

**(e) J-PRISM Project**

This year one of the achievements of J-PRISM in Vanuatu is the waste audit report produced by Sanma Province and Luganville Municipality. The audit report is based mainly on waste characterization and especially the amount of waste generated by residents in Luganville. This report is available through the Waste Management Unit of the DEPC or the Sanma Provincial Headquarters in Luganville Santo.

**(f) Field and site visits**

**(i) Tagabe River**

This year the Waste Management and Pollution Control officer went on several field visits to the Tagabe River with the other stakeholders to investigate the degree of pollution on both land and water that nearby residents have caused/are causing to the river. The Tagabe River is currently managed by the Department of Rural Water Resources. However, it has come to the attention of this unit that the existing management plan implemented by the TRMC (Tagabe River Management Committee) must be clear and effective to ensure pollution is prevented and that both the welfares of people and environment are safe.

**(ii) Open dumpsites on Saratamata**

The field visit to the open dumpsites at Saratamata was conducted on the 7<sup>th</sup> of November by the Waste Management and Pollution Control Officer, the Compliance Officer and the Legal Support Officer of DEPC. The open dumpsite was about half a kilometer away from St Patrick's College. Nearby residents and the college usually dispose of their daily garbage at that dumpsite. The dumpsite's location near the

main road is of concern as it is situated in such a way that causes an odor nuisance to pedestrians and vehicles passing by.

### ***Conclusion***

- The Unit is currently working with Prime Minister's Office to ensure the two bills are tabled and passed at the March 2013 National Parliamentary session to ensure there is effective compliance on pollution activities which are detrimental for the environment. These two laws will also allow the government to work with Municipalities and Provincial Governments to ensure proper plans and systems are developed and operated to properly manage waste and control pollution.
- The Unit is also looking forward to implementing the J-PRISM project more effectively and efficiently with local counterpart members to ensure proper systems and techniques on waste management are established by 2015.

## 3.2 Summary of National Ozone Unit Activities

### 3.2.1 Introduction

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This year 2012 has been another busy year for the National Ozone Unit (NOU) especially conducting compliance with assistance from DEPC Officers; and also implementing the licensing system. Besides the usual busy schedule, the NOU also conducted a few other programmes.

The Government of Vanuatu through the DEPC was fortunate enough to host the PICs meeting this year including conducting a Customs Training with assistance from the Oceania Customs Organization (OCO).

The following is a brief summary report on the activities undertaken by the NOU throughout the year 2012.

### 3.2.2 Legislation

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#### *New Regulations*

The last step in the Ratification of the Beijing Amendment that was gazetted last year, was for Regulations to be drafted that would amend Schedule of the Ozone Layer Protection Act (OLP Act) 2010 to include *bromochloromethane* in the list of chemicals that are to be monitored and controlled. The Regulations were drafted by the Legal Volunteer at the DEPC in close consultation with the State Law Office, and were signed off by the then Minister, Stephen Kalsakau in August 2012. These Regulations have since been gazette (Sept 2012) and are now in effect.

#### *Amendments to the OLP Act 2010*

From late 2011 to 2012, amendments to the OLP Act 2010 were drafted. These consultations addressed several things about the Act that became apparent after one year of implementation of the Act. The Amendments proposed include:

- To introduce categories in the license that technicians would have to apply for
- To include the set-up of the NOU and its functions
- To include the functions and duties of the Director
- Reducing the number of members of the National Ozone Advisory Committee

Please refer to the Appendix for the Information Note on the Amendments to the OLP Act.

These Amendments are to be tabled in March 2013.

#### *Implementation of and Compliance to the OLP Act*

As is the norm with any new procedure, there were issues that arose with inspections, the main one being the availability of transport to the inspection site (government wharf etc.). The Unit received complaints about the speed at which we were able to respond to inspection requests; the main one being that goods were held up at the warehouse and as a result, this increased the fees the companies were charged for having their goods held. The NOU acknowledged this was a hindrance to our implementation role, and for the most part addressed this issue by paying for public transport to and from the inspection site. This solution only worked if there were means available! The Enforcement Training that the NOU organized later on in the year put this issue to rest.

There were no compliance issues that arose; all the stakeholder companies complied with the requirements under the OLP Act. Despite the complaints raised, the NOU was able to work well with the Customs Border Control to monitor the borders.

### 3.2.3 HCFC Phase-out Management Plan (HPMP) -Update

#### *Signing of MOU with SPREP*

Vanuatu, along with 11 other Pacific Island Countries (PICs), has a joint Regional HPMP. Part of the implementation of the HPMP is to carry out Enforcement Training for Enforcement Officers such as Customs Border Control Officers who are at the forefront of monitoring and controlling goods that enter or leave a country's borders. The implementing agency for each country (in our case UNEP) will sign an MOU with a regional organization (for the PICs; SPREP) to assist the country in that region in finding consultants and such to assist the countries carry out their HPMPs.

In June this year the DEPC signed an MOU with SPREP to allow us to access funding for the HPMP. The SPREP organized Mr. Viliame K Rova, Law Enforcement & Security Officer, Oceania Customs Organization Secretariat to travel to Vanuatu to conduct the 3-day Enforcement Training for Customs and other MP stakeholder enforcement agencies (such as the Fisheries and Quarantine Department), as well as Customs Agents and Brokers.

#### *Montreal Protocol Customs and Enforcement Training Workshop*

The training took place from October 3 -5<sup>th</sup>, at the Customs Wharf Conference Room. The long-term objective of this training was to ensure that compliance to the Montreal Protocol in the Phase out of ODS is sustained. In addition, the training was also a chance to create awareness and capacitate law enforcement officials by providing the necessary skills set and knowledge that would strengthen and enable enforcement officials to effectively monitor ODS trade and its controls. The training was aimed to assist in the implementation of the Hydrochloroflorocarbon Phase-out Management Plan (HPMP) at the national level.

Although there were a large number of invitations sent out (planned for 25 people) only 9 people attended; 6 out of the 9 were Customs and Border Control, 2 from the DEPC and one Officer was from Quarantine Department. The expected results of the training included:

- for the trained officers to acquire better skills and knowledge in executing national responsibilities of the Montreal Protocol.
- availability of trained Customs officials, key stakeholders
- the development of training approach and recommendation for the ongoing training of Customs and law enforcement officers.

The following are some of the issues and challenges that were raised by participants during the training:

- there needs to be a documented procedure (an SOP) in place to guide existing and future Customs officials on the handling of ODS imports
- There seems to be limited access and awareness of Customs Officials and other Border Officials, the Public and key stakeholders to the following information about ODS Trading:
  - The List of ODS Commodities that are prohibited and restricted
  - The Import permit
  - The procedures to follow in applying for licenses and permits
  - The List of exporters and importers of ODS in The Vanuatu and in the FIC's and their contact details
  - The List of importers of ODS the FIC's and their contact details
  - The reduction schedule of HCFC consumption in Vanuatu and the PIC's



**Figure 1: Customs Workshop, October 2012**

- The current usage of ODS in Vanuatu.
- The trade statistics of ODS Trade in The Vanuatu and the FIC.

From the above issues identified, it appears that the NOU still needs to increase its awareness to its Stakeholders, and perhaps come up with new methods for dissemination of MP information; this is a difficult task when stakeholders themselves do not make an effort to respond positively to requests for their participation in meetings etc. It is also an issue that can be addressed quite effectively through a website for the DEPC.

The NOU has already sought assistance from its counterpart, the NOU in Fiji for development of an SOP for the handling of ODS by Customs Officials.

#### *Good Practices In Refrigeration Training (GPR Training)*

There were, regrettably, no GPR Trainings held this year. This was due to the delay in the arrival of the equipment that the UNEP was supposed to have sent to facilitate the training. The Training is hoped to take place early next year as we have just recently received advice that the equipment is to be couriered over to the DEPC in the near future.

### **3.2.4 Licensing System**

#### *Imported Goods Inspections*

In accordance with the MOU that was signed last year with the DCIR, the Customs Border Control Unit is required to contact the NOU for inspection of any imported goods that flagged a specific tariff code. The procedure that was (informally) agreed upon was that if there were pallets to be inspected, we would go to the Wharf to check that the imports were non-ODS. If the goods came in a container, then we were required to show up at the premises when the container was unloaded for the inspection. The NOU filled out forms with the information for record and data keeping purposes.

Following is a summary of the information collected:

- ❖ Number of Inspections Conducted = 27  
(January 2012 – October 2012)

	<b>Refrigeration Units</b>	<b>Air Conditioning Units</b>
<b>R410A</b>		234
<b>R134A</b>	22	12
<b>R404A</b>	2	3
<b>R22</b>		1
<b>R600a</b>	25	

Some of the Companies Inspected:

Green Tech, ABM, Le Lagoon, Rapid Electrical, Pacific Supplies, Fung Kuei, The Port, ABC Store

\*Data from NOU Inspection Logbook

The above information only reflects 90% of the inspections that were carried out this year. There is information missing for a number of reasons:

- There were instances where inspections were made, but the relevant forms were not filled out,

- In other cases, both the Senior and Assistant Ozone Officers were out of the country and the relevant inspecting officer was not properly informed of the correct forms to fill out. This is a practice that needs to be improved.
- As of October 31, the Director officially authorized the Customs and Border Control Officers who attended the training in the first week of October as ODS Examiners, which means that the checking of equipment at the borders now falls primarily into the hands of the Customs Borders Officers, unless the NOU is requested for assistance.
- It is also good to point out that the *Airport's* Border Control has a Customs Officer who attended the Joint Customs and Ozone Officers' meeting in Fiji last year, and therefore is capable of carrying out inspections of any equipment that is flagged, and these are therefore not referred to the NOU.

*Registration of Companies and their Imports for one calendar year*

In October and December 2011, two companies officially registered to become Approved Importers and to have Approved Facilities. The following is a summary of information on the two companies:

Approved Importer Company	Premises registered	Date of Registrations
1. Vila Refrigeration and Air Conditioning	No.3 Wharf Roundabout	October 29 2011
2. Supercool Vila Limited	Champagne Estate, Port Vila	December 13 2011

Of the two companies, Vila Refrigeration and Air Conditioning has re-registered. Supercool is currently in the process of renewing its registrations.

Rapid Electrical also applied to have their facility registered, and this inspection was carried out earlier this year. They also had their application approved by the Director.

*Import Quotas*

In June 2011, the two companies, Supercool and Vila Refrigeration and Air Conditioning ("VRAC") were given quotas for the import of HCFCs into the country. At the start of the year, six (6) months would have passed since these quotas were granted. As of 31 January 2012,

- Supercool Limited had used **488 KG (0.488MT)** of their 2MT quota therefore leaving them with **1,512 KG (or 1.512MT)**
- VRAC had used **680 KG (0.680MT)** of their 2MT quota thus leaving them with **1,320 KG (or 1.320MT)**

These amounts remained unchanged by the time the quota licenses were due for renewal (end of June 2012). In July 2012, THREE (3) companies applied for quotas for import of HCFCs, and the Director approved the following amounts to be granted to each company:

Company	Quota Granted
Vila Refrigeration and Air Conditioning	1.5MT
Supercool Vila Limited	1.5MT
Trade air	1.5MT
<b>TOTAL</b>	<b>4.5MT</b>

Vanuatu's quota is currently 5.45MT. The remaining 0.95MT (950kg) is held in reserve by the DEPC as a buffer to ensure we do not go above the limit because of an unforeseen circumstance.

Since the quotas were granted, the above Companies have yet to come forward to fill out application forms for any imports of HCFCs. This would technically mean that the country has not imported any HCFCs (equipment-containing or cylinders) since the end of 2011.

According to the HCFC Phase out timeline set by the Montreal Protocol, there is a freeze on all imports of HCFCs from January 2013. This means that all parties to the Montreal Protocol and its Amendments must have Quota Systems in place by January 1 2013, and all imports of HCFCs must now freeze at the quotas for each country.

### 3.2.5 Reporting

The following are reports that are submitted annually or continuously to the Multilateral Fund (MLF) Secretariat, the Ozone Secretariat (OS) and/or the UNEP throughout the year:

Report	Authority	Due dates
Article 7 Data	Multilateral Fund Secretariat	30 June
Country Programme (CP) Progress Report	Ozone Secretariat	31 May
Financial Reports	UNEP (Implementing Agency)	On-going

#### *Article 7 Data and CP Progress Report*

Vanuatu does not manufacture or export any ODS. We reported the following for the period January – December 2011

HCFCs imported into the country for maintenance and servicing:

HCFC 22: 1.35 MT

HCFC 142b: 0.05MT

TOTAL HCFC imported: 1.4MT

Methyl Bromide imported for Quarantine and Pre-shipment purposes (QPS): 0.4MT

We are also required to report on factors such as the status of our legislation and any training carried out during the year. Our training for GPR and Customs for 2011 took place; our legislation is in place and is being implemented effectively.

#### *Financial Reports*

Vanuatu Institutional Strengthening Project Phase III (January 2011 – December 2012)

Amount Granted: 60,000 USD

Tranches: 3

Tranche	Amount Disbursed (USD)	Dates money accessed through Finance
1	24,000	December 2011
2	24,000	March 2012
3	12,000	September 2012

The VanIS funding is used mainly for Administrative purposes, the majority of which goes into the payroll of the Unit's staff. This year, a large amount of the funds was also put towards the PICs Network Meeting that Vanuatu hosted, and for the Capacity Building trip that was organized by the UNEP ROAP team in Bangkok, Thailand.

The Director has, in November, signed off on the Small Scale Funding Agreement (SSFA) for the next Phase (Phase IV) of this funding that will last for two years; January 2013 to December 2014. The amount we are to access remains at 60,000USD. The Unit recently sent the terminal financial report of the Phase III funds to the UNEP ROAP office to facilitate the release of the first tranche of Phase IV (according to the SSFA, the tranche amounts remain the same as the previous Phase tranches).

### Licensing System Fees

The following is a total of the amount of money collected this year under the licensing system.

Company	Purpose	Amount
Rapid Electrical	Approved Storage Facility	10,000VT
Trade Air	Approved Facility and Approved Importer	30,000VT
Vila Refrigeration and Air Conditioning	Renewal of Registrations	10,000VT
Supercool Vila Limited	Renewal of Registrations	10,000VT
<b>TOTAL</b>		<b>60,000VT</b>

Since the approval of the import quotas for June 2012 to June 2013, none of the three companies who currently have quota have imported any gases that are ODS. No companies have also come forward to apply for permits to import equipment containing ODS, both of which require the importing companies to pay a levy of 100vt per kilo of ODS brought into Vanuatu.

Although this may seem a small amount in terms of revenue for Vanuatu, this should be seen in a positive light, as it means that Vanuatu is cutting down on the amount of HCFCs being imported into the country; a fact which means the control measures we are putting in place are working.

### 3.2.6 Meetings for the Montreal Protocol

#### *The PICs 4<sup>th</sup> ODS Network Meeting, April 30 – May 3*

The fourth meeting of the Regional Network of Ozone Officers for Pacific Island Countries (PIC) was jointly organized by the Government of Vanuatu (Department of Environment Protection and Conservation, Ministry of Lands and Natural Resources) with UNEP during 30 April - 3 May in Port Vila, Vanuatu, with financial support from the Multilateral Fund for the Implementation of the Montreal Protocol.

Ozone officers and representatives from Cook Islands, Kiribati, Marshall Islands, Nauru, Niue, Palau, Solomon Islands, Tonga, Tuvalu, Federated States of Micronesia,



Figure 2: PICs Network Meeting May 2012

Papua New Guinea (PNG) and Fiji as well Vanuatu attended the meeting. Australia, as a long term bilateral partner also participated in this meeting. Representatives from Pacific Islands Forum Fisheries Agency (FFA), Australia Pacific Technical College (APTC), Vanuatu Refrigeration Industry Association and Oceania Customs Organization, Ozone Secretariat also participated in this meeting.

The following is a summary of the meeting discussions and recommendations which are of relevance to the Government of Vanuatu in its continuous effort to implement the Montreal Protocol and its Amendments.

#### **Fishing Sector**

- The NOUs agreed to provide information to FFA and facilitate contacts to help conduct the study in their countries.
- The meeting requested UNEP, in consultation FFA/IMO to contact the relevant countries whose fishing boats operate in this region to highlight the importance of having monitoring and controls of HCFC cylinders carried onboard, to help prevent illegal trade at high-sea and to encourage the use of alternative technologies and retrofitting where possible to reduce the burden of R-22 servicing on Pacific Island countries.
- It was advised that all NOUs should work with their national fishing authorities to promote non-HCFC technologies in newly manufactured vessels or land-based fish processing factories, in consultation with FFA.

#### **Technical options for phaseout of HCFC**

- The NOUs were advised to educate technicians/contractors about their national HCFC phase out plans, quota systems and possible shortages of HCFC-22 supplies in the near future, to prevent the new installation of HCFC-based equipment;
- The meeting noted that currently, there are many counterfeit/contaminated refrigerants in the market. Counterfeit refrigerants containing R-40 has put servicing technicians in life threatening situations, and the NOUs were advised to inform their refrigeration servicing industry to be aware of this issue. UNEP was requested to keep the NOUs informed of any new development in this area.

#### **Good Practice Training Programme**

- APTC has been contracted by UNEP for the delivery of the national technician training programme under the regional HPMP. Each country needs to make the local arrangements for the training workshop in consultation with APTC.
- APTC has developing the manual for the training programme, and is sending the draft to the countries for review and translation, if deemed necessary by technicians.
- The meeting encouraged all countries to use the capacity of their existing technical vocational schools for the delivery of the good practice training programmes and to integrate the good practices training into the curricula of the vocational training schools to sustain the training.
- The NOUs were advised to develop their management and monitoring plan for the equipment and tools that UNEP is procuring for the NOU to distribute at the country level as part of the regional HPMP.
- The establishment of refrigeration associations was encouraged with the willingness of the technicians as a civil organization, if necessary with the assistance of the NOU in the initial stage. Moreover, the refrigeration association should try to include not just technicians and refrigeration/air conditioning (RAC) contractors, but broader membership such as importer/dealers.
- For the countries that have national refrigeration associations now or in the near future, the meeting encouraged the different associations to communicate and network together, including other national associations and a potential regional RAC industry association.

#### **Cooperation with Customs and Customs Training Programme**

- The meeting encouraged all countries (including those which are not World Customs Organization members) to migrate their Harmonized System (HS) code to the 2012 version for efficient recording of HCFCs by customs.
- UNEP has contracted OCO to conduct the customs training programme under the regional HPMP. Each NOU needs to make the local arrangement including the preparation of the national handbook for the organization of the training workshop, in consultation with OCO.

**CTC and QPS issues**

- Australia offered to assist Vanuatu and other PIC countries upon request to review their current QPS applications, and assess whether alternatives are available in those specific areas.

*Open Ended Working Group, July 23-27 2012*

This meeting was held in Bangkok, Thailand. At the OEWG, all Party representatives discussed issues that were tabled as Conference Room Papers (CRPs) and therefore draft decisions. There were also numerous side-events, such as the workshop on Advancing Ozone and Climate Technologies that took place on Saturday 21 and Sunday 22 July.

The following is a brief description of the draft decisions (relevant to Vanuatu) that were tabled and discussed:<sup>1</sup>



**Figure 3: Joint PICs Meeting in Pattaya Thailand, October, 2012**

<b>Draft Decision</b>	<b>Parties Tabling Decision</b>	<b>Brief Description</b>	<b>Proposed dates that decision come into effect</b>
Article 7 Reporting Format Adjustment	Europe and Croatia	For parties to include 'exporter information in their 'import' data	Forms adjusted by January 1 2014 (or OS to adjust forms by January 1 2013)
Clarification in Reporting MBr for QPS Purposes under Article 7	Australia, Croatia, Mexico, EU and Switzerland	Request TEAP to submit report that looks at the uses of QPS on a regional basis.  Also asks parties that either have no established procedure, or have an existing procedure to either improve the existing or create a procedure, based on the elements that the TEAP will provide in their report.	Parties submit information by 31 March 2013
MP Treatment of ODS used to service ships, including ships from other flag states	EU and Croatia	To request the OS to prepare a document that collects current information about the sale of ozone-depleting-substances to ships, including ships from other flag States, for onboard servicing and other onboard uses, including on how parties calculate consumption with regard to such sales, and that identifies issues relevant to the treatment of the consumption of ODS used to service ships, including flag ships, for onboard uses	

<sup>1</sup>

The latter draft decision above also encourages parties that are contracting parties to annex VI to MARPOL to:

- Monitor conditions under which controlled substances are kept onboard ships
- The quantity of such substances and associated records in accordance with provisions of Annex VI

### Proposed Amendment to the MP: HFC Phasedown Amendment Proposal

Tabled by: Canada, Mexico and the US

#### The Key Elements:

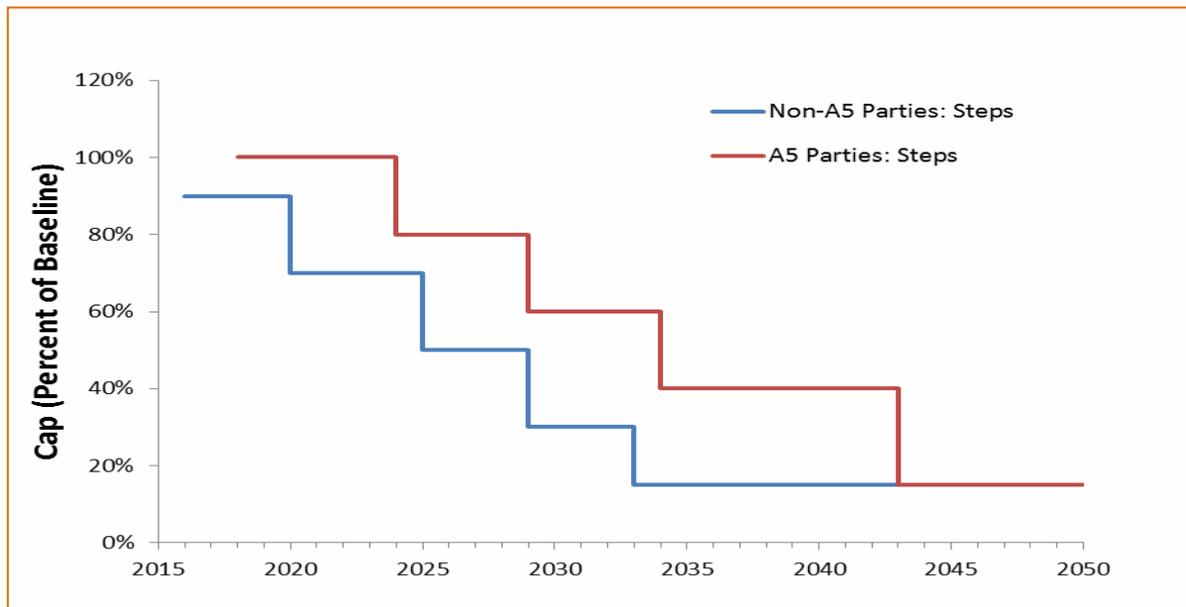
- Lists 21 HFCs as a new Annex F, including two substances sometimes referred to as HFOs.
- Recognizes that there may not be alternatives for all HFC applications and therefore utilizes a gradual phasedown mechanism with a plateau, as opposed to a phase-out.
- Establishes provisions for developed country (non-Article 5) and developing country (Article 5) phasedown of production and consumption (see figure below).

The baseline for Article 5 countries is calculated based on HCFC consumption and production respectively averaged over years 2005-2008, recognizing there are HFC data limitations in some countries.

For non-Article 5 countries, the baseline is determined from a combination of HFC plus 85% of HCFC consumption and production respectively averaged over years 2005-2008.

Uses weighting by Global Warming Potential for HCFCs and HFCs as compared to typical Montreal Protocol practice of Ozone Depleting Potential.

#### HFC Reduction Steps for Article 5 and Non-Article 5 Countries (% of baseline)



- Includes provisions to limit HFC-23 byproduct emissions resulting from the production of HCFC-22 in each production line beginning in 2016. The provisions are intended for production lines that do not have an approved project under the Clean Development Mechanism to control emissions of HFC-23.
- Requires licensing of HFC imports and exports, and bans imports and exports to non-Parties.
- Requires reporting on production and consumption of HFCs, and HFC-23 byproduct emissions.

- Makes eligible for funding under the Montreal Protocol's Multilateral Fund the phasedown of HFC production and consumption as well as the reduction of HFC-23 byproduct emissions.

Despite the repetitive tabling of this draft, no outcome could come from discussions with any of the parties. There are a lot of parties who are not willing to support this proposal because they feel that the HFCs are chemicals that are controlled under the Kyoto Protocol, and they are not ODS. However others argue that the MP encouraged the use of HFCs when we were phasing out CFCs and HCFCs, and we should therefore take responsibility.

Other parties feel that while parties should take responsibility for the HFCs we encouraged, the timing is not right, as parties have just started phasing out HCFCs (parties have just gotten their HPMPs approved and are still in the process of phasing out HCFCs).

***TEAP also gave out the following information on alternatives:***

With regard to MBr:

- There are fumigant combinations, and combinations of old fumigants that continue to replace MBr for critical use. The sale of methyl iodide (a chemical alternative to MBr) has been suspended.
- There are some soil pathogens that were previously controlled that are re-emerging
- The phase-out date for controlled uses of MBr is 1 January 2015
- Sulfuryl fluoride (SF) is a key alternative to MBr, however some parties still have not allowed SF to be used to treat certain foods (e.g. Australia still has not given approval for its use on packaged rice)

With regard to refrigeration and air conditioning gases:

- In refrigerants and domestic refrigeration, HFC-134a and HC-600a are still the preferred refrigerant options for new products.
- HFC-134a is going to be replaced by HFC-1234yf (a low GWP HFC)
- There is a lack of low GWP refrigerants with large refrigeration capacity to replace R-404A or HCFC-22 (except for HC-290, which has a limited use in large systems because of the safety issues)
- HFC-1234yf is the new alternative, however there are outside issues that have to be dealt with, such as its availability, refrigerant cost and there are also patent disputes.
- With regard to marine and trailer refrigeration units, there are two manufacturers who have started field testing units that use R-744 (CO<sub>2</sub>)
- With regard to air conditioning, HC-290 is being used to replace HCFC-22 in low-charge applications. Refrigerants such as HFC-32, R-744 and HFC-161 will be used in the future to replace R-22, but only in low-charge applications.
- New heat pump refrigerant options include HFC-32, HFC-1234yf and HFC-1234ze. Chiller alternative refrigerants include R-717 (ammonia), hydrocarbons, R-744 (CO<sub>2</sub>), and HFC-32
- HFC-1234yf is the new refrigerant for car and light truck AC. For buses and rail AC, an alternative hasn't been determined yet.

***The Joint Network Meeting of Ozone Officers of Asia and the Pacific, 14-18 October 2012***

National Ozone Officers (NOOs) from both South Asia (SA) and Southeast Asia and the Pacific (SEAP) network countries, except Maldives, participated in the 4 day Joint Network Meeting from 15 to 18 October 2012 in Pattaya, Thailand. In addition, Nauru, Samoa, and Vanuatu from the Pacific Islands also joined with a view to strengthen the linkages between PIC and SEAP networks as advised by the ExCom. Australia, Sweden and Japan participated as developed country members. The Multilateral Fund

Secretariat and all four Implementing Agencies (IAs) also attended the meeting. Representatives from US Environment Protection Agency (EPA) and US Department of State (DOS) also participated in the meeting.

The main objectives of the meeting were:

- To inform the network countries the major issues for the forthcoming Meeting of the Parties (MOP), the recommendations of the 33<sup>rd</sup> Open Ended Working Group (OEWG), and Decisions of the 67<sup>th</sup> meetings of the Executive Committee (ExCom);
- To review policy and key measures being implemented by countries of the SA and the SEAP Networks to sustain 2010 phase out in CFCs, halons, carbon tetrachloride and methyl bromide;
- To review and discuss necessary measures that would enable countries of the SA and the SEAP Networks to meet HCFC freeze and 10% reduction in 2013 and 2015, respectively (licensing system, data collection, phase-out policy) and to discuss the progress with the HPMP preparation and implementation, and
- Share information among the Network countries and to bring together the strategies and experiences to work towards their common goal of compliance.

The following are some of the more relevant recommendations and conclusions from the Joint Network Meeting, under various subheadings:

#### **A. Compliance and data reporting**

Conclusions:

- The meeting further reiterated the importance to ensure that a workable quota/licensing system are in place for most of the countries in the region, in line with decision 63/17 of the Executive Committee. All countries reported that their quota system for the import/export of HCFC would be implemented from 1 January 2013, and would ensure the countries' compliance with the first HCFC control measures under the Montreal Protocol.
- It was also noted that some countries showed an increase in HCFC consumption in 2010 and 2011 which could be a threat to compliance if not addressed immediately.
- Network countries have been using informal Prior Informed Consent (iPIC) on Trade in ODS effective for enforcing licensing and quota systems on HCFCs. Countries agreed that iPIC could be a handy tool to reduce data discrepancy and could be a useful capacity building tool for exporters/importers.
- The countries were informed that as of 7 September 2012, a one-step log in has been implemented (<http://multilateralfund.org/cp/login.aspx>) for the access of the on-line CP progress report facilities. The User name and Password previously provided by the Fund Secretariat remains valid, and they are available from the UNEP Regional CAP team. Additional functionality includes export of data report to Excel or PDF format.

Recommendations:

- The network countries are reminded not to leave any blank in its A7 data report. Where there is no import/export of any substance, countries were advised to put "zero" to ensure that this is correctly recorded.
- The meeting noted that partly due to the economic consideration, there can be incentive for the refrigerant dealers to mix their own blends which might be packed under different trade names for marketing. The NOUs might need to advise their refrigerant dealers to import refrigerant from the legally registered exporters as indicated in iPIC sheet.
- The network countries were advised to use the revised CP progress report format for the 2012 CP Report preparation (decision 63/4). The MLF Secretariat will share a soft copy of the same through UNEP.

- Network countries were encouraged to make efforts to report to the Multilateral Fund Secretariat (MLFS) using on-line reporting system for CP Implementation Progress Report.

## **B. Decisions of MOP and ExCom**

### **Recommendations**

- The meeting reminded that all countries should ban HCFC trade with any non-Party to the Beijing Amendment from 1 January 2013. UNEP will circulate a latest list of non-Parties to the Beijing Amendment for easy reference, while the country needs to check the Ozone Secretariat's website: [http://ozone.unep.org/new\\_site/en/treaty\\_ratification\\_status.php](http://ozone.unep.org/new_site/en/treaty_ratification_status.php) for updated status.
- The network countries discussed the issue in regard to ODS supply to the fishing vessels, and reminded countries to consider the complications of this issue which could affect each country's compliance. Countries were encouraged to get involved in the discussions at the upcoming MOP on this issue.
- With regards to maximizing the climate benefits from the phase-out of HCFCs in the refrigeration servicing sector (decision 67/16), countries are advised to provide comments through China and/or India, the current members of the ExCom from this region on the proposal which will be discussed in the 68<sup>th</sup> meeting.

## **C. HPMP Implementation**

### **Conclusions:**

- The meeting noted that countries are adopting various options/approaches for the allocation/trading of the quotas within importers and putting in place, reporting/monitoring mechanism for such enforcement. The meeting further noted that since most countries have involved national stakeholders for the quota system development effective enforcement of such systems could be expected.
- The meeting noted that the developed countries have never retrofitted any small HCFC based R/AC equipment, and some of the CFC based equipment is still operating. This was raised in the context of retrofitting programmes being considered under servicing sector projects, and whether such retrofitting programmes would be the best use of limited resources.
- The issue on how to deal with the recovered ODS was raised during the discussion, and it was noted that there is currently no self-sustainable, cost-effective approach available especially for the LVCs and options should continue to be explored even if ODS destruction is not an issue for compliance.
- For the preparation of the next tranche request under HPMP, the meeting reminded all countries that as one condition set by the ExCom, the expenditure needs to be more than 20% of the approved earlier tranche. The progress report needs to be prepared to reflect the result of the activities, as well as any problems/issues, if any following the format that MLFS has circulated.

### **Recommendations:**

- Most countries reported banning of the import of HCFC based equipment as early as 2015 as one of the policy measures being planned. While banning the import of HCFC equipment might be essential for some countries to reach compliance with future effected control measures under the Montreal Protocol, it is advised that countries with such plan should carefully review the available alternatives/technologies in the regional market, as well as the implication of the enforcement before this mechanism is put it in place.

## **D. HCFC alternatives**

### **Conclusions:**

- The meeting also noted the growing demand for air-conditioning system especially due to an increased growth in the buildings sector and the need for close coordination between the NOU, energy department, urban development and local authorities during HPMP implementation to explore options for efficient alternatives to individual room air conditioners like district cooling, centralized systems, etc. that are ozone and climate friendly as well as energy-efficient.
  - Countries also noted the increased availability of HC based R/AC equipment, and some expressed concerns that while these may be energy efficient, there are still safety concerns associated with their use especially for high rise-residential buildings which continue to hinder their widespread use. These safety issues are important considerations that should be addressed during product design, manufacturing, transportation, storage, installation, maintenance, servicing and disposal. The NOUs should be aware of these issues before these can be recommended for broad use.
  - The countries discussed voluntary approaches for promotion of low GWP, higher energy efficiency equipment in the following four aspects:
    - To set up national policies such as financial incentives to promote low GWP, higher energy efficient alternatives;
    - To review and modify national standards to make the market open to these new technologies;
    - To educate consumers and other key stakeholders to understand and accept these technologies;
    - To train technicians to safely handle and service these equipment.
  - The meeting welcomed the release of UNEP training package on good practices in the R/AC servicing sector, which was developed as a regional effort of trainers from 17 countries. The training package can be used by countries in this region for the delivery of the training programme.
  - The meeting recognized that a legal qualification requirement for refrigeration servicing technicians to handle HCFC is most important factor to ensure sustainability of good practices training, and advised countries to consider putting such legal systems in place during the implementation of the HPMP;
- Recommendations:**
- With the flammable alternatives approved for the room air conditioner's conversion projects under MLF, countries are advised to be prepared for the introduction of the flammable-based small air-conditioning equipment in terms of the national regulations, standards, transportation, storage, and safe handling of the equipment, which includes the installation, maintenance, servicing and disposal.

#### **E. ODS use in laboratories and Methyl Bromide used for QPS**

##### **Conclusions:**

- The countries agreed on the need to have a strong and focused national MB tracking system for QPS and non-QPS applications following MOP's decision. Due to the reversibility of MB use, the MB produced and imported for QPS use could easily be diverted to non-QPS application, and an effective and enforceable MB tracking system will help to prevent any misuse of MB;
- Countries were notified on the 2015 phase out obligation for MB and the process required for preparation of nominations for Critical Use Exemption, if required.

##### **Recommendations:**

- Sustainability of the MB phase out depends on the availability of cost-effective technically, economically and commercially (TEC) feasible alternatives. While there are available alternatives for some applications, some MB uses continue to need effective replacements especially for quarantine and pre-shipment uses. UNEP was requested to continue to collect and disseminate information on alternatives regularly.

#### **F. Next meeting date and venue**

##### **Recommendations:**

- The dates and venue of the next meeting for South Asia will be further consulted with countries and all network countries will be informed later. ***Australia informed their willingness to host the joint PIC and SEAP network meeting in May 2013.***

#### **Conclusions:**

For future joint network meetings, it was suggested that more sessions for specific regional discussion/consultation should be organized.

#### *The Meeting of the Parties, November 11-17 2012*

Decisions that were accepted by the 24<sup>th</sup> MOP (important to Vanuatu)

#### Decision XXIV/7: Additional Information on Alternatives to ozone depleting substances

The decision requests that the TEAP (in consultation with experts outside the panel) prepares a draft report on the low GWP alternatives to ODS that is to be presented at the 33<sup>rd</sup> OEWS and a final one be prepared and presented at the 25<sup>th</sup> MOP.

This report would:

- Describe the current and emerging alternatives to HCFCs and CFCs. It should take into account their efficacy, health, safety and environmental characteristics, technical and economical feasibility, use in high ambient temperatures and high urban density cities, and if they are already in use, the timeframe of deployment
- Identify barriers and restrictions to the adoption and commercial use of certain environmentally-sound alternatives to ozone-depleting substances;
- Estimate, if possible, the approximate amount of alternatives with negative environmental impacts that could be or could have been avoided or eliminated by both non-Article 5 and Article 5 parties in the process of phasing-out ozone-depleting substances;
- Identify the opportunities for the selection of environmentally-sound alternatives to HCFCs in the future

#### Decision XXIV/9: Controlled Substances used on ships

This decision:

- Requests that the TEAP provides in its 2013 progress report, an updated version of the information provided in its previous progress reports on transport refrigeration in the maritime sector
- Invites parties to encourage relevant stakeholders to minimize the use of controlled substances in newly built ships and to consider environmentally benign and energy efficient alternatives wherever they are available
- To re-visit the issue at the 33<sup>rd</sup> meeting of the OEWS

This means that the original drafted decision presented and discussed at the OEWS was reduced considerably, and the remaining issues not addressed in the adopted decision will be discussed once again at the 33<sup>rd</sup> OEWS.

Decisions on Data Reporting:

#### Decision XXIV/12: Differences between data reported on imports and data reported on exports

This decision:

- Requests the OS to revise by Jan 1<sup>st</sup> 2013 the reporting format to include in the data forms an annex indicating the exporting party for the quantities reported as import. This information reported is outside of that required under Article 7 and should be submitted voluntarily
- Invites parties to participate so that there is more cooperation between parties, and also clarifies any differences in import and export data as provided by the OS
- Invites parties to consider participation in the iPIC scheme as a means to improve information about their potential imports of controlled substances

#### Decision XXIV/14: Reporting zero in Article 7 data reporting forms

This decision:

- Requests parties to enter a number in each cell in the data reporting forms that they submit including zero, where appropriate rather than leaving the cell blank
- Asks the OS to request clarification from any party that submits a reporting form containing a blank cell

#### Decision XXIV/15: Reporting of Information on Quarantine and Pre-Shipment Use of Methyl Bromide

This decision:

- Requests parties to consider at the thirty-third meeting of the Open-ended Working Group whether to ask the Technology and Economic Assessment Panel to undertake an analysis of trends in Article 7 data on methyl bromide use for quarantine and pre-shipment, and how to improve the information;
- Requests the Ozone Secretariat to remind parties that they are invited to submit information by 31 March 2013, on a *voluntary basis*;
- Invites parties that have not yet established procedures for data collection on methyl bromide use for quarantine and pre-shipment or wish to improve existing procedures to consider using the elements identified as essential by the Technology and Economic Assessment Panel in section 10.4.4 of its 2012 progress report;
- Requests the Ozone Secretariat to upload to its website the forms that have been provided as examples in section 10.4.2 of the 2012 progress report of the Technology and Economic Assessment Panel

#### Decision XXIV/25: Dates and Venue of the 25<sup>th</sup> Meeting of the Parties

This decision states that all parties are to convene the 25<sup>th</sup> MOP in Kyiv, Ukraine in October 2013.

### **3.2.7 Conclusion**

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The Vanuatu Government has come a long way from the UNEP's non-compliance party to being one of the well effective Ozone Unit in the region. Three years of hard work and good working relationship between the NOU, DEPC, DCIR, State Law Office, RACA and various stakeholders coupled with financial and technical assistance from UNEP and other donors, has placed Vanuatu back as one of the compliant Parties to the Montreal Protocol.

2013 will be another busy year for the NOU with much focused to be placed on:

- ❖ Amendments to the OLP Act
- ❖ Train-the-Trainer Workshops/Trainings, and
- ❖ Licensing System

The NOU would like to acknowledge the continuous effort and working relationship of the Director and DEPC team, DCIR Officers (especially Border Control Officers), State Law Office and RACA. Hopefully the working relationship will continue over the next twelve months.

Finally, NOU would like to wish everyone a Happy New Year 2013!

## 4. DIVISION OF ENVIRONMENTAL RESEARCH & INFORMATION

This year, the Division of Environmental research and Information of the Department of Environmental Protection and Conservation (DEPC) has been involved in, or facilitated many activities however, the main activities are highlighted below.

One component of this Division is to keep records of any scientific research undertaken in Vanuatu. This year there were a number of them that were carried out in close consultation with the Department's Biodiversity and Conservation Team. Further details of the researches conducted will be covered in the Biodiversity and Conservation Division report. Copies of the Preliminary findings reports and the research final reports are kept in the Department's library. One of the main functions of this Division is the dissemination of environmental education, information services and awareness materials to the public. This year students at primary and secondary school level, students of the USP's Emalus Campus, officers from other government departments and the members of the general public in Port Vila were amongst those who approached the Division for information on various environmental issues.

The on-going radio programme called 'Aelan Blong Yumi' provides an opportunity for our people around the islands to know about the current environment related activities and projects that are progressing in the country. Both the staff of this Department and other Government Departments staff such the Fisheries, Forestry, Meteorology, Water Resources, Geology and Mines and Energy are using this programme this year to assist them in putting out information for the whole country to be aware of.

The Vanuatu National Environment Week has become an annual event for this Department. This year, the main activities that took place in Port Vila occurred from 5-7<sup>th</sup> June. The programme began on the morning of 5<sup>th</sup> June with a parade beginning at Moorings Hotel through the Port Vila Lini Highway ending at the Seafront stage. It was led by the Vanuatu Mobile Force band followed by students representing various Primary and Secondary Schools around Port Vila. The Ministry of Lands representative officially launched the opening of the week's celebration, followed by the "Clean-up Port Vila" Campaign consisting mostly of students and youth groups including staff from several private companies and members of the general public. It was estimated that around 400-500 students participated in both the parade and "Clean Up Port Vila" Campaign. The garbage collected during the campaign was disposed of at the Teouma Dump site with the assistance of Port Vila Municipality. The week's celebration also marked several other international commemoration dates to mark certain international treaties.. Those celebrated were the World Environment Day 5<sup>th</sup> June, World Wetlands Day 2<sup>nd</sup> February, 2012 Pacific theme of Clean Pacific, UN International Year of Sustainable Energy, Pacific initiative of 'one day one tree one life' and Climate Change Adaptation and Mitigation.

On the afternoon of 5<sup>th</sup> June, some government officials and students were invited to a tree planting activity. One group of students moved to the George Pompidou Department of Environment building compound, and planted over 40 seedlings of various plants. Other officials, accompanied by another group of students moved to the Tagabe River Botanical Garden area and planted over 100 seedlings of various plants. It was estimated that over hundred students participated in this activity and almost 200 seedlings of various plants altogether were planted.

Malapoa College students tree planting activity during National Environment Week 5<sup>th</sup> June 2012

There was also a seminar organized at the Department of Environment Office which progressed for two days during the week, allowing staff from different government departments such as Fisheries, Forestry, Lands, Water Resource, Energy, including Live and Learn (NGO) to talk about their Departments environment related activities. Many schools around Port Vila had their students and teachers (approximately a total of 300 students) attend these seminars at the end of which they expressed that they had learnt a lot of interesting things about what these departments were/are doing.

Due to unavailability of funds during the year, the production of posters has only progressed towards the end of 2012. With some limited funds made available from the Mangrove Ecosystem for Climate Change Adaptation and Livelihood (MESCAL) project as part of its education and awareness component, this Division assisted the project in revising and improving an existing mangrove poster which is aimed at highlighting its positive impacts on climate change and livelihood aspects.

an AUSAID fund provided to the Department with the aim of addressing enforcement and compliance issues of the Department has also enabled this Division to use part of the fund before the end of 2012 to revise and improve the old Conventional on International Trade on Endangered Species of Flora and Fauna (CITES) posters developed by this Division in the past. This also includes the production of CITES brochures which will be distributed to the major hotels, motels, restaurants, including the markets vendors and some shops. The printing of all the above mentioned two posters and the brochure was supposed to have been done by the closure of the year. They are now however being printed and should be ready to distribute to major stakeholders in the near future. Altogether, there will be only be 100 copies of the mangrove poster, 100 copies of the CITES poster and 200 copies of CITES brochure. Limitation of this fund has not allowed for printing of more copies of these materials than the figures stated above.

This Division also participated in many national and international meetings and workshops since it is a Division that covers awareness and information on all areas under the Department. The workshops and meetings cover a range of topics that included climate change and sea-level rise, forestry, fisheries, integrated coastal management, Sustainable Land Management (SLM), water resource, biodiversity, CITES, bio-safety issues, ABS Issues, land issues, waste management and pollution control, community environment awareness raising etc..

Other international meetings attended by this Division includes: Oceania CITES Meeting, Nadi, 5-7<sup>th</sup> March, 2012; Pacific ABS Workshop, Nadi, 19-22 March 2012; Pacific Regional Workshop on Updating NBSAPs, Rotorua, New Zealand, 6-9<sup>th</sup> August 2012. Other international meetings held in Port Vila which this Division was part of includes the CITES regional workshop, June 2012, Port Vila; Climate Change meeting 31<sup>st</sup> October-2<sup>nd</sup> November 2012, Port Vila.

In conclusion, the challenges faced by this Division remains the same as other previous years such as lack of specific funding provided by the government including the lack of training provided in the areas of using the appropriate computer software for designing and publications. Having all the IT personnel based at the Ministry and serving four departments does not meet everyone's need. I personally recommend that each Department must have its own IT specialist to be able to serve the needs of each Department.

## 5. DIVISION OF COMPLIANCE MONITORING & ENFORCEMENT

### 5.0 Overview

This chapter addresses the work of the Department's Compliance Division. The Compliance Division has been operative since mid-2010 and consists of one compliance & enforcement officer and one assistant enforcement officer.

However all officers of the DEPC demonstrate enforcement in their various environmental fields through inspections, research and awareness and effectively participating to uphold all relevant environmental legislation and tackle environmental related matters.

Despite the small size of the Compliance Division, in 2012 there was a marked increase in the quality of the Department's compliance operations due to assistance from members of the general public, the Director and other staff of the Department of Environmental Protection and Conservation as well as other governmental and non-governmental organizations with relevance to safe-guarding the environment within their respective mandates.

In 2012 the Compliance Division focused on the observance by land owners, lease-holders, developers and investors of the Environmental Impact Assessment provisions of the Environmental Protection and Conservation Act, including:

- routine monitoring of resource consents(PEA, EIA and Management Plans)
- inspections of minor activities upon completion
- Responding to complaints made by the public about alleged breaches of EIA conditions or non-assessment developments.
- frequent inspections, sampling and analysis of data relating to significant operations
- Compliance & Enforcement training workshops in the provincial areas of Vanuatu.

The Compliance Division is in the early stages of developing workable compliance and monitoring programmes in relation to the Ozone Layer Protection and Community Conservation Area laws. The Compliance Division will try its best to work with the Ozone Unit and the Conservation Team to develop and implement these compliance regimes.

#### Montreal Protocol Enforcement Officers Training

Currently with great assistance from the VIDA volunteering program, an Australian volunteer has drafted an '**enforcement and compliance guideline manual**' which will assist not only the compliance division, but all authorized officers under the EPC Act to undertake enforcement action in accordance with legislation, rules and prescribed regulation as well as for efficient judgment and decision making on committed offences.

The Compliance Division has also provided substantial assistance to both the Department's EIA Division (that is the Senior EIA Officer), the Department of Geology and Mines, the Department of Fisheries, the Department of Public Works, with regard to site inspections, reports, preliminary environmental impact assessments, and facilitation of 'delegation powers' by the Director of the DEPC for conducting PEAs.

While the Compliance Division is responsible for pursuing the prosecution of offences against environmental laws, no such prosecutions were pursued in 2012.

## 5.1 Legislation

By way of background, Vanuatu's environmental laws commenced in 2003. However enforcement of those laws has been poor due to:

- insufficient Department resources dedicated to enforcement (both human and financial resources)
- poor co-ordination between government agencies
- gaps and inconsistencies in the law identified and exploited by the public
- domestic community and foreign investors' lack of awareness
- logistical difficulties of enforcement throughout the islands of Vanuatu

The Environmental Protection & Conservation Bill was introduced and subsequently passed by Parliament in November 2010, to amend and strengthen the former Environmental Management & Conservation Act of 2002 limiting or removing 'Ministerial Power' within any provision within the EPC Act.

The regulations that have since been developed under the new Environmental Protection and Conservation Act go a long way in assisting the Compliance Division to exercise enforcement powers, issuing stop notices and penalty notices. In 2012, **more than 20** stop notices were issued by the Department and **over 16** penalty notices were issued.

In June 2011 an Australian volunteer legal advisor (from the Volunteers for International Development from Australia [VIDA] program) joined the DEPC to assist with strengthening and implementing Vanuatu's environmental laws. The legal advisor's focus for the latter half of 2012 has been to build the capacity of the Compliance Division and the EIA Division of the Department to:

- improve the quality of site inspections
- improve the officers' knowledge of statutory enforcement powers
- improve record keeping and administrative decision making by developing template notices, forms, correspondence and determinations
- Implementing 'Environmental Compliance & Enforcement Workshops' in all major Provinces in Vanuatu.

The legal advisor has also been instrumental in aiding the department in interpreting legislation and powers under not only the EPC Act (particularly EIA provisions) but other relevant legislation. Draft enforcement and compliance guidelines have also been developed to assist not only the Compliance Division but to assist the Department as a whole.

As noted other relevant environmental legislation (other than EIA) will require more work in the field of compliance and enforcement once more environmental legislation is developed such as the Pollution Control Bill and the Waste Management Bill which are most likely expected to be tabled in Parliament in early 2013.

## 5.2 Environmental compliance awareness

In 2012, the Compliance Division focused in part on community awareness of environmental protection and conservation.

This included:

- Involvement in radio interviews,
- Environment Week (June 5<sup>th</sup>-with 'Tree planting theme' and activities);
- Education awareness at Efate schools particularly (for dugongs and mangroves).
- Awareness during compliance inspections (talking with village communities if they are unaware that they are committing an offence).
- Compliance enforcement workshops for PENAMA and TAFEA Province (View workshop Mission reports).

The purpose of these activities was to increase the public's understanding of what is or is not acceptable, or lawful, when it comes to environmental issues.

**Figure 2: Community awareness on EPI island with Public works Dept., Fisheries Dept. in parallel to conducting assessments for a project proposal on the island.**

Public awareness has undoubtedly contributed to an increase in complaints received by the Compliance Division. It has also led to an increase in media attention of various environmental issues such development proposals and the EIA laws.

These news items, some of which are based on press releases issued by the Department, have directly led to concerned lease-holders and developers contacting the Department with inquiries before attempting any development proposal or project.

The Compliance Division endeavors to respond in a timely fashion to these inquiries as well as complaints it receives that relate to the environment.

### **5.3 Environmental compliance activities**

Site inspections are conducted on a regular basis to monitor conditions of EIA and PEA approvals with inspections mainly around Efate Island occurring at an average of once every 2 months. However, due to some resource constraints, inspections in the latter half of 2012 have been more in response to complaints than routine inspections.

**Figure 2: Site inspection of developments without DEPC consent in response to complaint.**

The Compliance Division has also conducted site inspections with the assistance of the EU funding for 'Compliance & Enforcement training workshops' in the 6 provinces and with assistance from other programs such as IFPRI through the Coral Triangle Initiative (CTI).

In 2012 'The Compliance & Enforcement Training' workshops was planned to be conducted for all major provinces in Vanuatu. By end of 2012 training workshop was conducted at Saratamata, Ambae, PENAMA Province from 7/11/12 to 9/11/12 and on Isangel, Tanna, TAFEA from 14/11/12 to 18/11/12 (view Mission Reports for more details).

Other provinces for MALAMPA, SANMA and TORBA are planned for 2013.

**Figure 2: 'Compliance & Enforcement Training workshop' by DEPC for Penama province and heads of government departments in PENAMA province.**

Under the management of the Director, the Compliance Division has worked hard to keep on top of all issues regarding environmental compliance considering financial constraints to implement compliance activities.

#### **5.4 Challenges to environmental compliance monitoring**

The grant of approval by the Director for any project is subject to conditions. These conditions cover, for example, the impact on air and water, noise emissions, environmental management planning and reporting requirements. In order for the Compliance Division to monitor compliance with such approval conditions requires Departmental officers to conduct site inspections.

Compliance monitoring activities therefore rely on staffing. It also relies on financial resources, for example funding the cost of travelling to and from sites, from development sites on North Efate to proposed development sites on Santo. Currently the Department's compliance monitoring activities are severely restricted as a result of short-staffing and financial constraints for travel purposes. Compliance monitoring in 2011 was therefore conducted mainly around Efate Island (Port Vila in particular), where routine compliance monitoring was conducted twice a month. Other ad-hoc inspections occurred in response to complaints, reports by other government agencies and complaints by the general public or concerned residents of environmental incidents. Some inspections were also conducted in conjunction with other Departments, such as the Department of Geology and Mines and the Department of Livestock.

As alluded to above, environmental compliance inspections on outer-islands was lacking in 2011 due to budget constraints. Inspections were conducted mainly on Santo Island with the aid of project funds (Programme of Work on Protected Areas; and Preliminary Environmental Assessment inspections). There is a dire and urgent need for increased financing and personnel to the Department in order for compliance monitoring to be undertaken in outer islands other than Efate and Santo Islands.

A further significant challenge the Compliance Division will face in 2012 is the compliance monitoring relating to the anticipated new environmental laws expected to commence in 2012, including laws relating to:

- Waste minimization
- Pollution control
- Community conservation areas.

#### **5.5 Challenges to Environmental Compliance monitoring**

The grant of approval by the Director for any project is subject to conditions. These conditions cover, for example, the impact on air and water, noise emissions, environmental management planning and reporting requirements. In order for the Compliance Division to monitor compliance with such approval conditions Environment Department officers are required to be able to conduct site inspections.

Compliance monitoring activities therefore rely on staffing. It also relies on financial resources, for example funding the cost of travelling to and from sites, from development sites on North Efate or to proposed development sites on Santo.

Currently the Department's compliance monitoring activities are severely restricted as a result of short-staffing and financial constraints for travel purposes. Compliance monitoring in 2012 was therefore conducted mainly around Efate Island (Port Vila in particular).

Other ad-hoc inspections occurred in response to complaints, reports by other government agencies and complaints by the general public or concerned residents of environmental incidents. Some inspections were also conducted in conjunction with other Departments, such as the Department of Geology and Mines and the Physical Planning Unit.

As alluded to above, environmental compliance inspections on outer-islands in 2012 has improved substantially due to other environmental programs and workshops implemented aiding in funding.

**Fig: Compliance inspection on Santo with assistance by CTI and IFPRI**

Compliance Inspections (and Preliminary Environmental Assessment inspections) were conducted mainly on Santo Island with the aid of project funds (CTI and IFPRI);

New departmental procedure in 2012 emphasized that developers were to meet costs for assessments and travel of relevant staff which will hugely benefit the department to alleviate some financial costs.

A further significant challenge the Compliance Division will face in the upcoming years is the compliance monitoring relating to the anticipated new environmental laws expected to commence in 2013-2014, including laws relating to:

- waste management
- pollution control
- Community conservation areas.

These new significant fields of legislation may require some form of formal training.

## **5.5 Vision for environmental compliance monitoring in 2012-2020**

With only one existing compliance officer in the Department's Compliance Division, and given the significant budgetary constraints, enforcement of environmental laws is a significant short-coming of the Department.

Visions for the Department to enhance effective service delivery in the Compliance Division are to:

1. Have more enforcement officers.
2. Finalization of compliance and enforcement guidelines, refresher training on those guidelines, and a commitment by all Department staff to follow those guidelines.
3. Effective training of authorized officers and other line agencies of environmental enforcement powers and procedure.
4. Understanding and implementation of environmental laws by all officers of the Department.
5. Liaise with the prosecutions office for the prosecution of environmental offences and non-compliance to deter any future offenders.
6. Development of monitoring and compliance programmes for other sections in the Department (i.e Ozone Unit, Waste Management etc.)

7. Integrate environmental performance into the management and operation of all companies, industries and core businesses.
8. The Department to enforce all environment reporting requirements of persons given EIA approval or approval to import controlled substances under the Ozone Layer Protection laws. This will assist the Compliance Division with its monitoring workload.
9. Seek training opportunities to upgrade enforcement skills in tackling issues in new fields of legislation as well as in understanding obligations 'Multilateral Environmental Agreements' and conventions to which Vanuatu is party to.

## **Concluding Remarks**

As this report is being prepared, a new government headed by the Hon Moana Kalosil Carcasses as Prime Minister has been in place and new directives are being drawn including new policy directives for waste recycling and wastes reduction, which DEPC has already embarked on as its mandate under EPC Act (CAP 283). Other major environmental initiatives include the Port Vila Expansion Plan and work on implementation of the Port Vila Groundwater Protection Zone with the Department of Water Resources

More importantly DEPC Team has concluded its 10 Year Strategic Plan for 2014-2024 and will look to the new government to re-energize and re-invest into the 6 key strategies of Executive, Governance, Marketing, People Management, Enabling Environment and Operations