

National Compliance Action Plan

to implement the

Montreal Protocol on Substances that Deplete the Ozone Layer

in

Vanuatu

**Prepared by the Environment Unit of the Ministry of Lands and Natural Resources
with assistance from the
South Pacific Regional Environment Programme (SPREP)**

1.0 Introduction

Vanuatu is an archipelago comprised of over 80 islands, in three groups, of which the twelve largest account for 93% of the 12,200 square kilometres of land area. Vanuatu stretches approximately 1,000 km from North to South and it lies roughly 800km west of Fiji. Many of the islands are mountainous, some containing active volcanoes, and have rugged terrain covered in rich rainforest. Travel and communication by land is difficult and expensive. In comparison to the other Pacific Island countries, Vanuatu has a large area of land and a large population of roughly 193,000 according to the preliminary results of the 1999 Census.

Vanuatu was once known as the New Hebrides and was administered jointly by England and France. The influence of the former colonial powers is still obvious, with French and English in common usage, as well as the local language of Bislama.

Over 80 % of the population live in rural areas and are involved in subsistence agriculture, fishing and other home activities. Agriculture has the potential to develop as a major provider of cash income in the rural areas and important source of export revenue for the country. To maintain this potential, government plans to strengthen its quarantine and agricultural inspection services.

The remaining 20% of the population live in the two main population-centres of Port Vila and Luganville. While the net population growth is about 2.6 percent there is a large movement of people from the rural area to these main centres, and concern has been expressed whether the infrastructure of Port Villa and Luganville can cope with this demographic pressure.

Tourism supports nearly 5,000 jobs in Vanuatu. There is little industrial development with only 1,500 people reported as working in the “formal industrial sector”. Most of those are in the food and beverage industries and the forestry industry. In recent years, the service industry has become important in Vanuatu’s economy. The fastest growing areas have been financial and banking services, tourism and the registration of flag of convenience ships. The Finance Centre of Vanuatu has significantly contributed to national income and government revenue. The Gross Domestic Product (GDP) in 1998 was approximately US\$195 million at May 2000 exchange rates. The national economy grew by 3.5% in 1996 but dropped to 1.7% and eventually to a growth of -2 % in 1998.

Most inhabitants of Port Vila and Luganville have electricity in their houses, but outside of these urban areas it is rare. The very high cost of electricity (approximately US\$0.26 per kW/h) means that the use of electrical appliances such as refrigeration and air-conditioning in private dwellings is uncommon.

As with all the Pacific Islands, corrosion from salt air is a problem. Accordingly steel products such as cars, as well as refrigerators and air-conditioners, suffer from corrosion problems.

1.1 Purpose

As part of the process of meeting its obligations under the Protocol, the Government of Vanuatu, in close collaboration with consultants from SPREP, has developed this National Compliance Action Plan (NCAP). The NCAP was prepared to reflect the commitment of the Government of Vanuatu to comply with its obligations under the Montreal Protocol.

For that purpose, data on consumption of ODS is presented and analysed, as well as a strategy containing concrete actions to possible timely phasing out. A detailed Action Plan for phasing out ODS has been elaborated and the specific projects to achieve it identified. This document provides the basis for monitoring progress of implementation of the Montreal Protocol in Vanuatu.

Vanuatu intends to be actively involved in the regional strategy to implement the Montreal Protocol in the Pacific region. Most of the activities outlined in this strategy will be funded through the Regional Strategy even though they are included in the NCAP. The budget for the activities is therefore presented as part of the Regional Strategy and not this NCAP.

The development of the NCAP is important in determining the level of ODS consumption in the country. More specifically the NCAP:

- is a reflection of the commitment of the government of Vanuatu to achieve compliance with its obligations under the Montreal protocol
- provides an assessment of the consumption of ODS in Vanuatu from 1995 to 2010
- identifies the actions that the government intends to take in order to fulfil its obligations under the Protocol, and
- identifies the nature and extent of the assistance sought by the government of Vanuatu from the Multilateral Fund to support its efforts to protect the ozone layer and meet the Protocol's objectives

1.2 Status

Vanuatu ratified the 1985 Vienna Convention and the 1987 Montreal Protocol, the 1990 London Amendment and the 1992 Copenhagen Amendment on 21 November 1994. Accordingly, Vanuatu is required to control the consumption of CFCs, halons, methyl chloroform, carbon tetrachloride, hydrochlorofluorocarbons (HCFCs), hydrobromofluorocarbons (HBFCs) and methyl bromide at this time.

Following the ratification of the Vienna Convention, the Montreal Protocol and its Amendments, the government of Vanuatu decided to undertake the development of this National Compliance Action Plan (NCAP) as a first step towards meeting its short and long term obligations under the Protocol. Additionally the development of the NCAP was important in determining the level of ODS consumption in the country.

The Government is currently considering ratification of the 1997 Montreal Amendment and the 1999 Beijing Amendment. Advice has been provided by UNEP to the Government on the implications of ratifying these amendments.

Vanuatu is classified as operating under Article 5 of the Montreal Protocol and as such is entitled to assistance from the Multilateral Fund to comply with its obligations.

According to data collected in preparation of the NCAP Vanuatu is required to freeze its consumption (i.e. import of bulk substances) at a maximum level of 1.36 ODP tonnes from 1 July 1999. The average consumption of CFCs for 1995-97 was equivalent to 0.007 kg per capita (assuming a population of 193,000). In 2000 imports of CFCs had already fallen to zero. Vanuatu has met its obligation to freeze its consumption in July 1999 at its base level.

Vanuatu is in compliance with its obligations to reduce consumption of ozone-depleting substances under the Montreal Protocol, but has yet to report its consumption data to the Montreal Protocol Ozone Secretariat.

Because it is a party to the 1992 Copenhagen Amendment Vanuatu is required to control the consumption of CFCs, halons, methyl chloroform (1,1,1-trichloroethane), carbon tetrachloride, HCFCs, HBFCs, “other halogenated CFCs” and methyl bromide at this time.

Table 1.1 Maximum allowable consumption under Montreal Protocol

Year	Montreal Protocol percentage reduction	Maximum consumption (ODP tonnes)
Base Year	0%	1.36
2000	0%	1.36
2001	0%	1.36
2002	0%	1.36
2003	0%	1.36
2004	0%	1.36
2005	50%	0.68
2006	50%	0.68
2007	85%	0.20
2008	85%	0.20
2009	85%	0.20
2010	100%	0.00

Vanuatu does not produce any ODS. All ODS are imported.

1.3 Assistance Received

Vanuatu was part of an early attempt to implement the Montreal Protocol in the Pacific region. It received an initial payment of \$3,000 in 1996, to assist with the development of a phase out strategy. The regional programme did not commence as planned, and these funds have not been spent.

In early 2000, UNEP, working through the Government of New Zealand employed a regional consultant to assist with the implementation of the Montreal Protocol in Tonga, Tuvalu and Vanuatu. Under this programme, which has since become part of the Pacific-wide programme of assistance administered through the South Pacific Regional Environment Programme (SPREP), Vanuatu held a one-day workshop for government departments and small industrial enterprises conducted by the SPREP Regional Consultant, Mr. Iain M^cGlinchy. Findings and data from the report on the consultant’s visit were used to develop the NCAP.

Vanuatu has not received any assistance from the Multilateral Fund for phase-out activities.

2.0 CURRENT SITUATION

2.1 Current and forecast Consumption

2.1.1 Current Consumption

Only three types of ozone depleting substances are known to have been imported into Vanuatu in bulk form: chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) which are used for refrigeration and air-conditioning, and methyl bromide used for quarantine fumigation. Other than the use of methyl bromide for quarantine fumigation, consumption of ODS in Vanuatu is exclusively in the refrigeration and air conditioning sector.

Chlorofluorocarbons (CFCs)

There is no known data for the import and consumption of ozone depleting substances (ODS) for the years before 1995 and little information from before 1997. Data presented here for earlier years is an estimate based on historic trends.

The following are the best estimates of Vanuatu's CFC consumption, based on the survey carried out by the international consultant in 1999. The data includes an allowance to account for CFCs imported directly by smaller operators in previous years and not reported by the major companies.

Table 2.1 Consumption of CFCs in Vanuatu (tonnes)

Substance	ODP	1993	1994	1995	1996	1997	1998	1999	2000
CFC-12	1	2.3	2.3	1.7	1.1	0.9	0.7	0.5	0
CFC-115	0.6	0.2	0.2	0.2	0.3	0.1	0.1	0.0	0
ODP tonnes		2.39	2.39	1.82	1.29	0.97	0.71	0.45	0

NB. CFC-502 is a mixture of 51.2% CFC-115 and 48.8% HCFC-22. It is reported here as its components.

Hydrochlorofluorocarbons (HCFCs)

Vanuatu is not required to begin to control the level of imports of HCFCs until 2015 and does not have to finally phase them out until 2040. Vanuatu is only obliged to report the total quantity of HCFCs imported into Vanuatu each year from 1993, the year before it ratified the 1992 Copenhagen Amendment. It is not required to reduce its consumption of these substances at this time.

The use of HCFCs is generally increasing in Vanuatu, corresponding to the rise in use of the HCFC-22 in air conditioning and refrigeration equipment. As with the CFC data, there are few records before 1997. Data for 1993-1996 is an estimate based on trends.

In addition to the import of HCFC-22 there may be a small amount of HCFC being imported as components of mixtures used to service equipment that once used CFCs, but so far this is negligible and no HCFC-containing mixtures were identified in this survey.

Table 2.2 Consumption of HCFCs in Vanuatu (metric tonnes)

Substance	ODP	1993	1994	1995	1996	1997	1998	1999	2000
HCFC-22 (Metric tonnes)		0.4	0.6	0.6	0.6	0.7	1.0	1.1	1.2
HCFC-22 (ODP Tonnes)	0.055	0.02	0.03	0.03	0.03	0.04	0.06	0.06	0.07

Halons

There is no known consumption of bulk halons in Vanuatu and there are very few halon fire extinguishers in the country. There are no halon servicing facility in the country. ESQAL-Vila Ltd reported that it had imported halon extinguishers, but had stopped in 1994, when New Zealand and Australia stopped their imports.

Because Vanuatu has not imported any halon in bulk form it must freeze its consumption of halons at zero from 1 January 2002. In other words, it must prohibit all imports of bulk halons from this date.

Methyl bromide

Vanuatu is a relatively large user of methyl bromide for “quarantine and pre-shipment” (QPS) applications. The Quarantine Division is the only agency in Vanuatu licensed to carry out fumigation using methyl bromide for any uses. It has operations at the airport, including fumigation chambers at the two shipping ports – Port Villa and Luganville. The only importer, Agricultural Supplies has recently been replaced with the Easy Kill company. Both imported the methyl bromide from Australia. All imports are licensed under the Pesticides (Control) Act No 11 of 1993.

Most of the fumigation carried out in Vanuatu is for agricultural products being exported to New Zealand, Australian and other developed-country markets. There is also some export of sawn timber which is fumigated in Vanuatu. Some goods are fumigated on import as well.

Table 2.3 Methyl bromide consumption

Substance	ODP	1993	1994	1995	1996	1997	1998	1999	2000
Methyl bromide	06	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.8

Other ODS

There is no reported use or consumption of any other ODS, i.e. methyl chloroform, carbon tetrachloride, “other CFCs” and HBFCs. It is extremely unlikely that anyone would wish to export any of these substances to Vanuatu, as there are no facilities likely to use them.

2.1.2 Forecast CFC Consumption

There is no obvious source of CFC supply in the immediate region and CFC consumption is already at zero. However, as noted above, Vanuatu has strong colonial links to France. As a result it has imported CFCs from Europe, rather than Australia, NZ or Fiji as was the case of most of its neighbours. It is quite possible the main importer may be able to obtain further

supplies from Europe albeit at a high price. Therefore, forecasting future demand in the absence of government regulations is difficult.

It might be possible to predict CFC demand based on installed capacity of CFC equipment, but there is only limited data on the number of pieces of refrigeration and air-conditioning equipment in Vanuatu that still uses CFCs and would require this for servicing.

If the supply of CFC had not stopped in 2000 it is reasonable to assume that the demand for CFCs would have dropped from its level in 1999 to zero over a period of less than 10 years as existing equipment was replaced. Under this scenario it is likely that Vanuatu would have remained in full compliance up until 2010.

The main area of uncertainty in predicting demand is the on going importation of second hand equipment, particularly second hand vehicles that contain CFCs in them. If an alternative supply of CFCs were established, then the demand for servicing mobile air-conditioners in cars could be relatively high.

Table 2.4 Forecast ODS consumption in ODP tonnes

Year	Montreal Protocol Maximum consumption	Forecast consumption if no other intervention
2000	1.36	0.5
2001	1.36	0.45
2002	1.36	0.04
2003	1.36	0.35
2004	1.36	0.3
2005	0.68	0.25
2006	0.68	0.2
2007	0.20	0.15
2008	0.20	0.1
2009	0.20	0.5
2010	0.00	0

It is clear from table 2.3 that if regulations are not put in place, to restrict imports of CFCs then even one small shipment of CFCs to meet the demand to service imported second-hand Japanese cars could potentially put Vanuatu into a situation of non-compliance.

2.2 Industry Structure

There are no manufacturing facilities using any ozone-depleting substances in Vanuatu. All ODS consumed in Vanuatu, other than methyl bromide, are used in the refrigeration and air-conditioning service sector.

2.2.1 Importers of ODS in Vanuatu

The ESQAL-Vila Ltd is the only known importer of Refrigerants for the last three years. It is the only company with a license to import refrigerants under the Import of Goods (Control)

Act. All refrigeration-servicing companies have to purchase the refrigerants from this one importer. Therefore to control import of ODS only one company will need to be regulated.

A second company, Socometra, was also importing and distributing refrigerants in the past but is not known to be dealing in CFCs for the past few years. The imports were for retail use only. There are also known to have been some direct imports by smaller companies in past years, but these have now stopped. An allowance has been made for these imports when calculating the annual consumption figures.

Unlike most other importers in the Pacific, ESQAL-Vila imported their CFCs and other refrigerants from the European Union. ESQAL-Vila reported in 2000 that it was now too expensive to import CFCs from Europe and they did not plan to find any other sources.

2.2.2 Users of refrigeration and air-conditioning equipment

There are three larger private refrigeration and air-conditioning repair companies: Vila Refrigeration, Island Refrigeration and Advance Refrigeration operating on the islands. There are also a small number of smaller service operations that mainly deal with domestic refrigerators. Several of the larger car dealers service mobile air-conditioners.

There are no Government owned refrigeration workshops hence all servicing work on Government owned equipment is carried out by private sector. Based on the report prepared in 2000 by the Regional Consultant, it appears that there are perhaps 20 or 30 technicians in the country who repair refrigeration equipment.

Mobile air-conditioning units (MACs)

There is a relatively large vehicle fleet in Port Vila for the size of the population. There is no official data on the number of vehicles. Asco Motors, the Toyota dealer, reported that in 1999 they estimated there were 6,000 vehicles in Vanuatu. The rough terrain and subsistence agriculture lifestyle means that, especially outside of the two urban areas, most people walk. Around 400 new vehicles are registered each year according to data from the Statistics Department.

Vehicles in Vanuatu drive on the right hand side of the road and therefore there are no second-hand vehicles imported from Japan that dominate the vehicle fleet in other Pacific countries. A small number of second-hand vehicles are imported from South Korea. These were originally intended for the domestic Korean market and contain CFCs in those manufactured before 1995.

Working mobile air-conditioning units are not common. The very poor state of the roads outside of the main urban areas and the corrosion means that failure rate of MACs is fairly high. Although some MACs are serviced, most are not. Estimates are that there are only around 600 - 1000 vehicles with working air-conditioning units in Vanuatu. Most of these would be in newer vehicles and would use HFC-134a as the refrigerant. Accordingly relatively little CFC is used for ongoing servicing of MACs. Servicing is carried out with CFC-12 and HFC-134a, depending on the age of the vehicle.

Commercial refrigeration

There are four large supermarkets in Vanuatu with a range of refrigeration equipment. Large walk-in freezers, upright display cabinets for drinks and fresh fruit storage are common in Port Vila.

Newly installed units in the supermarkets are using HCFC-22 and the non-ozone depleting refrigerants: HFC-134a and R507. Servicing of older equipment is still usually done with CFCs, but increasingly HFC-134a and the other refrigerants are being used because new equipment is using it. The Statistics Department had no data on imports under the HS codes for this kind of refrigeration equipment.

The following industries have been identified as using commercial refrigeration equipment, but there is no data on refrigerant type or consumption. Most equipment is thought to be CFC-free.

- Bon Marché Supermarkets (3)
- Centre Point Supermarket
- General Store Supermarket
- Abattoir (One large one in Port Vila and one in Luganville)
- Chicken City (chicken processing plant)
- Brewery
- Ice Cream Factory (2)
- Beef Processing plant (2)
- Ice making plant for fisheries (2)
- Cheese Factory
- Vanuatu Tropical Products
- Hospital (One main one in Port Vila and one in Luganville)
- Hotels and Resorts
- Outer-island coldstores

The fishing industry

There is not a significant fishing industry in Vanuatu. Most fishing is for local use and fishermen use a mixture of ice and domestic refrigeration and freezing equipment to store the fish. One company was reported to be exporting small quantities of chilled fish to Japan and other markets. Fish is chilled using ice from the Fisheries Department.

The Department of Fisheries operates two ice-making plants for use by the local fishermen. None of their ice-making equipment used CFCs.

Domestic refrigerators

Domestic refrigerators and chest freezers are not common outside of the two main urban centres. As noted, even there, the very high cost of electricity (approximately US\$0.26 per kW/h) means that the use of electrical appliances such as refrigeration and air-conditioning in private dwellings is uncommon.

Servicing of domestic refrigerators and display cabinets was occurring, but the tropical conditions meant corrosion of the mild-steel pipe work was a major problem and therefore units had a fairly short life. The uneven voltage and power cuts also meant compressor

failures were also relatively common. Servicing is still carried out with CFC-12 in older units and HFC-134a in the new units.

Total reported use in 1999 for servicing all domestic refrigerators and display cabinets was less than 100kg per year and declining rapidly. Many companies still had stocks of CFC-12 for servicing.

There is no obvious trade in second hand refrigerators.

Building Air-conditioning

By the standards of the Pacific region there are a relatively large number of three- and four-story buildings in Port Vila. There are also a large number of resort-style hotels, mostly operated by major international hotel companies. There is no CFC-11-using air-conditioning equipment (chillers) in Vanuatu. All air-conditioning is done using HCFC-22 window units, split systems. Most other buildings use only fans and open windows for cooling.

According to data provided by the Statistics Department, imports of window air-conditioners are in the order of 300 – 400 per year.

2.3 Institutional framework

The Environment Unit, which is under the Ministry of Lands and Natural Resources, is the national lead agency for activities with respect to the Vienna Convention and Montreal Protocol. It is also the main arm of government in charge of management and protection of the environment, including protection of the atmosphere and issues pertaining to climate change and sea level rise.

It is proposed that a Vanuatu National Compliance Centre (VNCC) office be established within the Environment Unit to implement the NCAP. This Unit will assume all responsibilities for data reporting to the Ozone Secretariat and the Multilateral Fund as well as all reporting requirements for project implementation. The VNCC will, work closely with a committee, the Vanuatu National Ozone Committee (VNOC), set up to monitor the progress and implementation of NCAP activities. It will be comprised of other government departments, public and private sector organisations and NGOs set out in Table 2.4 below.

Table 2.4 Composition of Vanuatu National Committee

- Environment Unit
- Customs Department
- Department of Finance
- Office of the Attorney General.
- Ministry of Trade and Industries
- Refrigeration engineers and technicians
- Vanuatu Institute of Technology
- Chamber of Commerce and Industry
- Department of Quarantine and Inspection Services
- Department of Agriculture and Horticulture
- Department of Fisheries.
- Local Media
- ODS importers and exporter

2.4 Policy Framework

As a party to the Montreal Protocol, Vanuatu has accepted the responsibility to phase out ODS in the country. The policy framework within which ODS will be managed is based on :

- Legally enforceable restrictions on import of ODS
- Industry support for new non-ODS technologies
- Training of service technicians and Customs officers
- Co-operation between Government and ODS importers and users to raise awareness and ensure the phase-out is sustainable.

The controls need on trade in ODS can be effectively imposed through the Import of Goods (Control) Act 1984, and the Customs Act 1999.

There is usually one company licensed under the Import of Goods (Control) Act to import different types of goods, such as Boral Gas for propane, Au Bon Marché (the parent company for Easy Kill) for pesticides and ESQAL-Vila Ltd for refrigerants. This will make implementing any import restrictions relatively straightforward.

The Customs Act 1999 also allows orders to be made which can limit or ban the importation of ODS and equipment that uses ODS.

2.5 Government and Industry response

The Government's first response to the Montreal Protocol was to commence the preparation of this NCAP, in collaboration with UNEP and SPREP. For this purpose, a country visit, survey, and workshop were organised with the technical assistance of SPREP's international consultant in May 2000. Further activities have been difficult due to limited staff resources.

Industrial response started with the main ODS users in Vanuatu. The suppliers have already started importing low and non-ODS gases. The retailers are also changing to non-CFC manufactured products. All new refrigeration equipment sold or installed in Vanuatu has been CFC-free for several years.

3.0 Implementation of the Phase Out Strategy

3.1 Strategic Statement by the Government

The Government of Vanuatu is committed to its obligations under the Montreal Protocol on Substances that Deplete the Ozone Layer and is prepared to undertake an accelerated CFC Phase-out target date of 31 December 2005, inline with other countries in the region and as part of the Pacific Regional Strategy.

Adoption of an early phase-out date will send a strong signal to the global community demonstrating Vanuatu's commitment to global environmental issues. It will also reduce problems associated with the dumping of obsolete technologies. These target goals will be

achieved with the support of the Multilateral Fund and the Pacific Regional Project in collaboration with the private and public sectors, NGOs, and other government and international agencies.

3.2 Action Plan and Projects under the NCAP

3.2.1 Action Plan

In order to be able to comply with the Montreal Protocol the Government must carry out a number of actions. These are set out in the following Action Plan

1. Maintain compliance with the Montreal Protocol while preparing an accelerated phase-out program.
2. Establish the Vanuatu National Compliance Centre (VNCC) office to co-ordinate, implement, and monitor the phase-out program.
3. Prohibit any new activity related to the import, production or use of ODSs in new equipment
4. Ban of import of ODS-using and ODS-containing equipment.
5. Introduce controls on the import (and export) of all ODSs (including licensing, taxation and/or quotas as appropriate)
6. Strengthen ODS import/export monitoring program by developing a licensing system.
7. Consider a system of fiscal incentives/disincentives in favour of non-ODS alternatives and transitional substances.
8. Implement and monitor training of customs officers to ensure proper control of import and export of ODSs and information collection and submission
9. Implement and monitor training of refrigeration service technicians in good practices of refrigeration to minimise the use of ODSs and mitigate their emissions into the air during the service of refrigerators
10. Conduct public awareness campaign on necessity and means for protection of the Ozone Layer and the government's commitment to phase out ODSs

Education, training, legislation, regulations and other incentives will ensure that Vanuatu will continue to meet its obligations under the Montreal Protocol and ensure a sustainable phase out of ODS.

3.2.2 Projects

All Projects set out in the Action Plan will be implemented as part of the Pacific Regional Strategy. The budget for these projects is presented as part of the overall Regional Strategy.

National Support Project

A National Support Project is necessary to enable the achievement of strategic objectives under the Montreal Protocol. This project will establish the Vanuatu National Compliance Centre Ozone Unit (VNCC) with one part time "Ozone Officer" under the Environment Unit, as this is the agency responsible for implementing the Montreal Protocol in Vanuatu. The Centre will be staffed for three years (2002 – 2005). The position will be established as the equivalent of 37% of a full time position for the three-year term. For the first year, while regulations are being prepared, a greater number of hours may be needed (up to 70% of full time), with less (20% of full time) in the second and third year. The Government will decide the actual number of hours once the overall allocation of funds at a Regional level is known.

Following the introduction of legislation, the key tasks of the VNCC will be to manage the import permit system for HCFCs and continue any ongoing public education campaigns. The VNCC would also oversee the development and implementation of the certification scheme for refrigeration technicians.

Annual reports on ODS consumption will be submitted to the Ozone Secretariat, as required under Article 7 of the Montreal Protocol. In addition, annual reports on progress of implementation of NCAP will be submitted to the Multilateral Fund Secretariat and the Implementing Agency as required under the decision of the 10th meeting of the Executive Committee.

The VNCC will require assistance from the Pacific Regional Project to help develop the national regulations.

Legislation and Regulations

To ensure ongoing compliance with the Montreal Protocol, the government will establish a system to monitor and control CFC imports. The development of these regulations and drafting the necessary legislation will be a high priority and should be in place as quickly as possible. New regulations and policies will be prepared under either the Customs Act or the Import of goods (Control) Act, or, in the case of methyl bromide, the Pesticides Act. Assistance will be sought from the Pacific Regional Project to help develop the appropriate regulations.

Because the supply of CFCs has already ceased, the Government will prohibit imports of CFCs from the date the regulations come into effect. This will ensure that Vanuatu remains in full compliance with its obligations under the Montreal Protocol in coming years and ensure it meets the 2005 Regional phase-out target.

Any import license scheme will require co-operation from the importers and the Customs Officers. It may also require amendments to the Harmonised System (HS); an internationally agreed upon system of classifying trade goods and recording import statistics that Vanuatu uses to allow identification of individual controlled substances.

An import license scheme will be necessary for HCFCs for tracking purposes. This will be implemented at the same time as the controls on import of CFCs. These licenses will be issued on demand; with no restrictions on the quantity imported, but the actual quantities of HCFCs imported will be required to be reported to the DOE.

Controls on the remaining substances are necessary to ensure ongoing compliance with the Montreal Protocol. The government will prohibit the import of all bulk halons, "other CFCs", 1,1,1-trichloroethane (methyl chloroform), carbon tetrachloride, and hydrobromofluorocarbons (HBFCs). None of these substances are known to have any use in Vanuatu. Some, such as the "other CFCs" and the HBFCs, are no longer manufactured.

In case there are some unforeseen demands for CFCs or any other ODS other than HCFCs, the regulations will also allow imports for "essential uses" provided that the Environment Unit approves these and they are consistent with Vanuatu's obligations under the Montreal Protocol.

In addition to prohibitions on the import of the "bulk substances" the Government will develop regulations to prohibit the import of both new and second hand products containing CFCs, such as refrigerators and freezers. This is to avoid receiving "junk technology" and to reduce future demand for CFCs to service the equipment.

Financial incentives

The Government will investigate the possibility of introducing financial incentives to promote the use of non-ozone depleting substances to replace CFCs through reductions in import duty and such like. It will also investigate the possibilities of reducing import duties on equipment such as recovery and recycling machines needed to protect the ozone layer.

Training Programs and Workshops for Refrigeration Technicians

To successfully introduce the new non-CFC refrigerants into Vanuatu will require new skills for technicians. The new refrigerants require new handling procedures and new lubricants. It will be vital that training is provided quickly if Vanuatu intends to implement a phase-out date of mid-2002. It will also be important that technicians have the necessary skills to fix leaks in existing equipment, rather than continuing to simply add new gas to equipment without fixing the leak.

It is proposed that a training programme be developed to teach these skills. The courses would teach recovery and recycling and good engineering practices as well as issues relating to the legislation and ozone depletion. Those who attended would receive free or subsidised training. There are no Vanuatu-based training facilities that teach refrigeration. Most workers train on the job while expatriate staff and owners received their training overseas. There is great interest in receiving further training, especially in retrofitting existing equipment to use non-CFC refrigerants. Training will be provided using regional consultants in collaboration with the VNCC, to be implemented locally as part of the Pacific Regional Strategy. This will be provided using the facilities of the Vanuatu Institute of Technology.

The trainer will develop a course in consultation with the Environment Unit and the Vanuatu Institute of Technology and deliver this in Vanuatu in 2002 or early 2003.

All of the costs of this training will be met under the Pacific Regional Strategy.

Training for Customs Officials

Vanuatu does not produce any CFCs and therefore all of its CFC consumption must be imported. It follows that border controls will be vital to ensure that the Government's policies are implemented. In particular it will be important to ensure that CFCs are not smuggled into Vanuatu. If illegal imports of CFCs become common or widespread, it will undermine the NCAP by postponing the phase-out and by penalising those who remain law abiding.

To successfully implement the licence scheme it will be vital that Customs Officers from the Vanuatu Department of Customs are trained to recognise CFCs and their alternatives. This training should be provided once regulations are in place.

It is expected that training will need to be provided by an overseas expert. This training should take three or four days to complete and would include training on the relevant Vanuatu legislation, the Montreal Protocol, recognition of packaging and storage containers and training in the use of the Refrigerant identification equipment.

As well as the provision of training, it will be important to provide portable refrigerant identification equipment. Field officers will be provided with portable identification equipment and where there is doubt about the accuracy of labelling they will send samples to a central laboratory (possibly in Australia or Fiji) for legal testing. The training providers should also assist with the development of policies for sampling of shipments of refrigerant gases.

It is recommended that one unit be provided as there is only one major port. This unit would then be available for use by the refrigeration workshops when not in use by Custom's staff.

Training of Customs Officers and provision of the detection equipment will be provided under the Pacific Regional Strategy and will be co-ordinated with other Customs forces in the region. All of the costs for this training will be met as part of the Regional Strategy.

Recovery and recycling machines

The use of recovery and recycling equipment allows workshops to re-use any CFCs that are extracted from the customers' vehicles at the time of servicing. Any CFCs that are recovered can be re-used, either in the same piece of equipment or in another piece of equipment later on. This is done instead of releasing the refrigerants to the atmosphere, as is the case in all workshops in Vanuatu at present.

Following the workshops by the International Consultant and by the Environment Unit in preparing this strategy, there is a high level of interest among Vanuatu technicians in being able to obtain recovery and recycling equipment for use in their workshops. The very high cost of recovery and recycling equipment deters most small workshops from acquiring these at present.

The Government will request assistance from the Multilateral Fund, as part of the Pacific Regional Strategy to assist in the purchase of recovery and recycling equipment for companies in Vanuatu.

Public awareness

Aside from developing regulations, public education would be a key task of the "Ozone Officer". There is currently little or no awareness of the Montreal Protocol among the general population or among most politicians.

Creating awareness of the Montreal Protocol will be a very important part of the strategy. It is vital that the public understands why CFCs are being phased-out and what they can do to assist in this process.

There is already a considerable body of material available from UNEP already, but these needs to be translated into the local languages first.

It is expected that appropriate, Pacific focussed, public awareness materials, can be provided through the Pacific Regional Strategy. In particular assistance will be needed for translating materials into Bislama, the local language.

3.2.3 Roles in Implementing the Strategy

The lead agency for implementing and managing the NCAP will be the Vanuatu National Compliance Centre under the Environment Unit. Given the complexity of the project, it will be necessary to collaborate with a number of organisations. The principal organisation will be the Vanuatu Customs Department, which will enforce the proposed regulations controlling the importation of ODS. The Customs Department will also be involved in collocation of import data through administration of import permits.

3.3 Timeframe and Consumption Implications of Action Plan

3.3.1 Timetable

The schedule for implementing activities to meet the Protocol objectives and its effects on ODS consumption is presented in Table 3.1. Of these activities, the ones that will lead ensure continued zero consumption levels are:

1. Monitoring of ODS imports and exports through a licensing system, new Refrigerant identification equipment, and well-trained Customs Officials.
2. The training of technicians in good service practices and the use of recovery and recycling equipment and retrofitting.
3. Fiscal policy measures to encourage the development of economically viable and attractive ODS free technologies.
4. Ban the use of ODS based technologies in new installations.

Table 3.1 Schedule for the Action Plan

Action	Description	Schedule	Impact	Implementing Agency
1	Establishment of VNCC office	Mar 2002	Enabling Activity	Environment Unit
2	Establishment of National Committee	Mar 2002	Enabling Activity	Environment Unit
3	Public Awareness and Education	Nov 2001 (ongoing)	Enabling Activity	Environment Unit
4	Establishment of Licensing System	mid-2002	Regulation on Restricted Imports and Exports	VNCC Customs Department Attorney General's Office
5	Establishment of Monitoring System	mid-2002	Data Reports under Article 7	Customs Department VNCC
6	Training of refrigeration sector technicians.	2002 – 2003	Reduction of Consumption	VNCC Vanuatu Environment Unit
7	Training of Customs Officials	2003	Reduction of Consumption	VNCC Vanuatu Environment Unit Customs Department
9	Consideration of tax incentives to promote use of substitutes and alternative technologies	July 2002	Reduction of imports and usage of CFC	VNCC Customs Department Attorney Generals Office Department of Finance
10	Ban on new installations and equipment using controlled ODS	Jan 2002	Elimination of new demands	VNCC Customs Department Attorney Generals Office Chamber of Commerce

				and Industry
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3.3.2 Consumption implications

Vanuatu has already achieved zero consumption because of the actions of other countries in the region that supply imported goods to Vanuatu. The actions set out in this plan are to ensure that Vanuatu maintains its zero consumption and its status of full compliance with the Montreal Protocol.

The Government notes that although the supply of CFCs has ceased, there is still demand. If the actions set out in the NCAP are not taken and if importers establish an alternative supply of CFCs, then Vanuatu could quickly find itself in a position of non-compliance.

3.4 Budget and Financial Program

The implementation and management of this NCAP has as a prerequisite the establishment of the Vanuatu National Compliance Centre (VNCC) office. For this purpose, a National Support Project is submitted for approval as part of the Pacific Regional Strategy. Funds allocated through the regional Strategy will be used to co-ordinate public education campaigns, operate and staff the VNCC office, train technicians and Customs Officials, set up a certification program, and purchase new CFC recovery and recycling and detection equipment.