

1 TITLE OF POLICY

Protection of the Atmosphere Policy

2 PURPOSE OF POLICY

This policy serves to cover not only atmospheric pollutants and surface emissions that have adversely impacted on local ambient air quality but includes also atmospheric concerns that have spanned global effects and recognition.

This submission proposes a policy on the effective implementation of national and international conventions that prioritize the protection of the atmosphere, and on appropriate regional approaches and national actions preferably adopted to meet them at the national level. At the local scale, the policy emphatically underlines the importance of protecting Ambient Air Quality at the Tropospheric level. It gives emphasis on the need for effective national responses to address and improve on localized air pollution or contamination of ambient air quality. At the global scale, the Vienna Convention on the Protection of the Stratospheric Ozone Layer and the Montreal Protocol on Ozone Depleting Substances (ODSs) which Samoa is Party to, are proof enough on the need to protect part of the atmosphere from contaminants. While there is specific global apprehension and subsequent responses to deal with some of the components of the atmospheric structure such as the Ozone Layer, it reflects none other than only surmounting concern with just a fraction of the atmosphere. It overlooks however the importance of other lower levels of the atmosphere and its associated phenomena and problems.

At the national level, there is lack of legal bases for enforcement. In particular there is the lack of a legal framework and official text specific on the protection of the entire atmosphere from surface emissions of hazardous chemical substances and pollutants as well as on implementation efforts and actions to mitigate proliferation of emissions. With this policy in place, it will provide adequate specific legal grounds and measures for effective implementation, enforcement and compliance at the national level, of requirements of the international conventions and protocols on the protection of the atmosphere.

3 PREVIOUS REFERENCES

There has been previous work done to which this policy is in line with, that directly mirrors Samoa's obligations and commitment to the Vienna Convention and the Montreal Protocol. At the national level Samoa has completed the Country Programme (CP) 1997 and the Refrigerant Management Plan (RMP) 2000. The two sub-projects are intended to meet the implementation requirements of the Montreal Protocol, and the Government of Samoa has approved both for implementation. The policy also corresponds to the *Lands and Environment Act 1989* which provides for the protection of the environment including the atmosphere. The *Customs Tariff Act 1984* on the other hand also has provisions that allow orders to be made which can restrict or prohibit the importation of environmental pollutants.

However, there is limited documentation on the importance of ambient air quality except that of partial information being tabled in the Government's Statement of Economic Strategy and NEMS report for consideration. These published documents provide support for the protection of local air quality focusing mainly on project developments and domestic activities as problematic areas. Due to limited recognition and strategies to

address localized issues of the atmosphere such as sources and causes of air, noise and stench pollutions at the national and international levels, work being implemented at the national level to deal with them and their related effects has been very minimal.

This policy covers national, regional and international approaches and commitments to the Protection of all levels of the atmosphere. Also, these commitments are reiterated in DLSE's Corporate Plan and Institutional Strengthening Policy which stresses the importance of enhancing environmental protection and adherence to national responses and, regional and global conventions.

4 REQUESTING AGENCY

DLSE

5 IMPLEMENTING AGENCY

DLSE

6 OTHER STAKEHOLDERS RELEVANT TO POLICY IMPLEMENTATION

- Ministry of Agriculture, Forestry, Fisheries and Meteorology
- Attorney General Office
- Ministry of Foreign Affairs
- Department of Trades, Commerce and Industries
- Samoa Polytechnic
- National University of Samoa
- BOC Gases
- Polynesian Airlines
- Customs Department
- Ministry of Post and Telecommunications
- Chamber of Commerce
- Western Samoa Refrigeration and Engineering Association
- Education Department
- Health Department
- Ministry of Transport
- Department of Police, Prisons and Fire Brigades

7 BACKGROUND TO THE FORMULATION OF THE POLICY ROPOSAL

In response to global demands with regards to reduction of ozone depleting substance (ODS) and greenhouse gas emissions (GGE), the policy exists to address these in order to successfully implement the requirements of International Conventions in particular the national responses to deal with the protection of the atmosphere. The Vienna Convention in particular is well on its way with implementation of its Protocol that guides the phaseout of ODSs. The Protocol proposes a scheduled timetable of ODS phaseout by which time Parties involved shall respectively be able to achieve their targets on time. Due regard is given to developing countries under which Samoa is classified, of which allows them 10 years grace period before committing to complete ODS phaseout. At the national level, both the Country Programme and the RMP identify components of the Phaseout Strategy including also the Government Action Plans. Two of the main components of the Strategy are the Emission Reduction and Regulatory Framework with the latter being the legal instrument in facilitating effective control on ODS usage and importation. This policy will enable enactment of the regulatory framework in order for

the Phaseout Strategy and Government Action Plan to be legally enforced. This policy also serves the same purposes for regulating controls on emissions of pollutants that contaminate ambient air quality of the atmosphere as one of the main concerns alluded to in the NEMS report.

By definition, Air pollution contamination of the atmosphere by gaseous, liquid, solid wastes or by-products can endanger human health and the welfare of plants and animals. Consequently, it attacks materials, reduce visibility and produce undesirable odors, as well as resulting in noise pollution emissions. Among air pollutants emitted by natural sources, only radioactive gas is recognized as a major health threat. However, sources of major air pollutants are of human-induced activities or individual actions. These include driving cars, industrial activities as manufacturing products and generating electricity while the most prevalent and widely dispersed air pollutants come directly from identifiable sources such as sulfur dioxide from electric power plants, carbon monoxide from motor-vehicle exhaust and some from industrial processes, CO₂ from all combustion sources, and lead (Pb) pollutant from motor vehicle exhaust, lead smelters and battery plants. Ozone (O₃) gas is also a very dangerous pollutant in smog and has been causing serious crop damage and visibility reduction. The effects of long-term exposure to low concentrations of airborne pollutants and particulate matters can cause related diseases as lung cancer, fever, migraines, bronchitis, typhoid, heart & lung diseases or it creates overall an uncomfortable and hazardous environment for human survival. Other adverse effects of air pollution are potential injury to plants (e.g. crops) and animals (e.g. livestock).

Protection of the Ozone Layer from emissions of ODS is equally important because of its vital role in screening dangerous UV lights from reaching the earth’s surface. Adverse effects of Ozone depletion are worrisome and life threatening because not only humans having to bear with related diseases such as skin cancer, eye cataracts, blindness and weakened immune systems, but will also meant damage to crops and plankton, marine food webs, increase in CO₂ due to the decrease in plants and plankton and loss of animal life.

All in all, it is along these lines of concern that derive the framework under which guides the formulation of this policy and adherence to fulfilling Samoa’s obligations at the national level.

8 **GOAL**

To minimize local impacts of atmospheric degradation and adhere to global efforts that sustainably manage and support the reduction and prevention of, human-related diseases, threats to food chain continuation and crop damage as well as threatening animal life survival, from increasing adverse effects of atmospheric depletion and air pollution.

9 **DETAILED STATEMENT OF POLICY**

9.1 <i>Objectives</i>	<i>Comments</i>
9.1.1 To put in place national actions to address and prevent both localized and globalized air pollution.	Develop appropriate sustainable strategies and strengthen capacity and commitment to implementing every requirement under international conventions that Samoa has and/or yet to ratify.

9.1.2	To support international and national efforts that specifically focussed on the improvement of atmospheric conditions and air quality	The NEMS has identified and recognized the need for the protection of the atmosphere and ambient air quality from localized emission of pollutants. Devise proper strategies to combat air pollution, to control and achieve the phaseout schedule of destructive substances and pollutants.
9.1.3	To integrate the monitoring of atmospheric quality into environmental planning and assessment.	Existing environmental planning and assessment mechanisms at the national level needs to include and take into account atmospheric quality aspects, in order to regularly monitor the success of activities and other employed means to serve atmospheric purposes.
9.1.4	To develop understanding of the effects of pollution on atmospheric quality.	Information sharing, transfer of technology and relevant expertise will further develop and enhance understanding on the atmospheric issue and its related adverse effects.
9.1.5	To create public awareness of global climatic changes and the need to protect the atmosphere.	Having identified the link between climatic changes and atmospheric pollution has sparked the need to develop community programmes, educate the public, promote public support and participation and inform the public on global efforts to combat climatic changes and atmospheric pollution.
9.1.6	To put in place a regulatory framework and set emission reduction limits to overcome air pollution.	A regulatory framework will enable achievement of emission reductions and act as an indicator to measure variations in air quality.
9.1.7	To strengthen the capacity of all stakeholders.	Human resource development is fundamental to the success of any project and activity promoting for example in this case, environmental quality of the atmosphere.
9.1.8	To identify sources of pollution & put in place feasible mechanisms of control	Will pay to find out natural and human activities that are major contributors and either ban or put in place alternatives and methods of controlling emissions of pollutants.
9.1.9	To establish an inventory of every destructive agent or hazardous substances and localized pollutants.	The set up of a Database to record and update information on atmospheric destructive agents and pollutants will promote accuracy and efficiency with data collection and retrieval of information.
9.1.10	To put in place control measures and relevant mechanisms in order to stall the influx of environmental pollutants.	Appropriate measures are necessary to regulate the use of ODS and set the pace for emission reduction strategies to control localized emission of depleting substances and pollutants. Establish an import/export licensing system will further control supplies, make collecting information on imported quantities easier and more reliable, provides gateways to controls on users and facilitate control on illegal users of environmental pollutants.

9.2 Strategy for achieving Policy Objectives

Strategy		Activities
9.2.1	Information/Research	Establish a Database to regularly update, gather, collate, analyse and then disseminate information. Recruit information specialist to manage and conduct regular systematic and scientific research to determine current status of the atmosphere.
9.2.2	Processes	Review existing environment legislation, draft appropriate regulations, set reduction limits and enact Orders under existing Acts to impose bans and prohibition on certain activities and imports of environmental pollutants.

	Need to articulate internal regulatory functions of the Department especially with regards to pollution controls in terms of land, sea and air. That is, to set up a clear structure under which to operate regulatory functions especially of pollution controls in order that we deal with air, noise and smell pollutions and ODS phaseout more realistically and effectively.
9.2.3 Public Awareness	Promote awareness using the media, conduct workshops and regular consultation with all stakeholders. Conduct questionnaire surveys to measure awareness on the issue, promote incentive oriented activities to increase community participation in introduced reduction methods of air pollution.
9.2.4 Capacity Building	Important to conduct internal trainings and workshops for staff to upgrade their skills and knowledge in order to enhance performance of tasks. Needs also to strengthen institutional capacity of the staff to deal with both internal and external constraints of implementations. Hirage of qualified resource personnel and experts to conduct workshops for purposes of relevant expertise transfer and exchange of information. Keep up with the advance in technological changes and computer software packages in order to enhance performance of tasks.
9.2.5 Conventions	Increase participation at the regional and global levels to ensure the collective protection of the environment. General adherence to global efforts of sustainable management of the atmosphere and commit to project activities that obligate Parties involved to meet binding requirements of the conventions.
9.2.6 Implementation	Develop and design proper procedures to guide efficient performance of tasks. Follow proposed guidelines for project and activity plans in order to achieve outcomes and optimum results.

10 EXPECTED BENEFITS FROM THE POLICY

- Provide clean air quality for all and reduce exposure to health risks
- Facilitate the recovery of the ozone layer
- Reduce the impact of climate change and its related effects such as global warming and sea level rise
- Reduce emission of ODS, greenhouse gases and airborne pollutant
- Transfer of technology to enable transition to non-ODS consumption and for identifying and monitoring non-compliance with bans and importation of pollutants.
- Exchange of information and transfer of relevant expertise to build on the capacity of our local experts and other relevant stakeholders
- Promotion of public awareness on the danger involved from these phenomena and provides training opportunities for capacity building and understanding of staff and communities at all levels.
- Continual receipt of financial assistance to fund proposed and related projects and activities.
- Increase of foreign capital and project investments into the country with guaranteed positive impacts on the economy.
- Accession to international conventions has the advantage of being able to participate and be recognized/heard at the regional and international levels on environmental matters.
- Have ownership of control equipment such sensoring devices, import licensing systems, recovery and recycling equipment and so forth.

11. **FINANCIAL IMPLICATIONS**

The Government of Samoa contributes only 5% of its local budget to the funding of activities of international conventions. The bulk (95%) of financial responsibility for the implementation of international conventions' projects at the national level is externally funded. Project developments and activities specific to ambient air pollution and other localized atmospheric problems can likewise be sourced from these external fundings. However it is important for the government to recognize that external funding of these projects will eventually phased out and the government needs to continue implementing these activities until total phaseout and is no longer necessary.

11.1 **Capital Investment**

The Multilateral Fund of the Montreal Protocol actually funds the implementation of the Montreal Protocol project in Samoa and other developing countries. Implementation of future projects and activities for air pollution and maintenance of ambient air quality can also rely on these funding from the Multilateral Fund and bilateral assistance from donor countries.

11.2 **Recurring Costs**

Any recurring costs will be covered by funds under international projects.

12. **HUMAN RESOURCES IMPLICATION**

As DLSE is the implementing agency, it will need to develop its staff full potential and capacity in implementing, assessing and monitoring of the failure or success of projects and general activities required to fully meet international and national objectives of atmospheric protection. Other parties involved such as other stakeholders and communities needs to be trained in order to develop awareness, understanding and become fully equipped with knowledge in combating emissions of pollutants (e.g. O.D.S., greenhouse gases & aerosols) at the local scale.

13. **LEGISLATIVE IMPLICATIONS**

Relevant Acts (Lands & Environment Act 1989 & Customs Act 1977) needs urgent review in order to incorporate explicit relevant provisions on atmospheric protection with specific reference to Ozone Layer and Ambient air quality protection. This should provide more consistent and relevant legislation on Regulations, Orders, Licensing systems and other legal mechanisms for more effective and competent implementation.

14. **RELATIONS WITH OTHER AGENCIES**

There will need to be continuing consultations between DLSE and other relevant stakeholders including sectors of government and industry to ensure effectiveness of this policy. In particular, there needs to be regular consultations with the Customs Department and TCI regarding illegal supply of ODS into the country and other environmental pollutants.

15. **PROPOSED IMPLEMENTATION SCHEDULE**

It is imperative that the legislative framework be in place as soon as possible in order for national responses to be more effective and in line with scheduled activity deadlines of national efforts to implement international conventions on the protection of the atmosphere including ambient air quality.

16 **RECOMMENDATIONS**

- Policy to come into effect once approved by Cabinet.
- Policy for the protection of the atmosphere be endorsed to provide guidance for effective implementation of national actions.
- Review of appropriate existing Acts be carried out in order to provide a more solid platform for enforcing compliance.
- Independent evaluations and review of legislation after every 2 years by a selected review committee including representatives from NGOs, Health, TCI Customs, DLSE, SREA, Samoa Polytechnic.
- Participation of all relevant stakeholders in protecting the atmosphere be strengthened and endorsed under this policy.
- Compliance with guidelines and conditions stipulated in the policy be monitored and closely observed at all levels and data must be regularly updated and reported back to the Implementing agency for assessment and results.
- That the policy be regularly updated as required.
- Regulatory use of ODS and emission Reduction limits must be strictly observed at all levels to ensure compliance with limitation measures.

17. **RESPONSIBLE OFFICER**

Tuuu. I. Taulealo)
DIRECTOR)
 Department of Lands,)
 Surveys and Environment)

18. **DATE OF SUBMISSION**