



South Pacific Bureau  
for Economic Co-operation



South Pacific Commission



Economic & Social  
Commission for Asia and the Pacific



United Nations  
Environment Programme

---

## South Pacific Regional Environment Programme

---

**SPREP/Country Report 1**

**Original: English**

**COUNTRY REPORT No.1**

**AMERICAN SAMOA**

**SPREP Information Centre  
Received**

**30 AOUT 1998**

**South Pacific Commission  
Noumea, New Caledonia  
July 1980**

**VF 1264**

SPREP / Country Report 1  
July 1980

ORIGINAL : ENGLISH

SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAMME

Noumea, New Caledonia

AMERICAN SAMOA

COUNTRY REPORT

(July 1980)

SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAMMEAMERICAN SAMOACountry Report

Proposed by:

South Pacific Commission Advisory Consultants:

Robert Ridell, Asst. Director of Devel. Studies, University of Cambridge.

Suliana Siwatibau, Formerly of, University of the South Pacific, Suva.

Review and recommended by the Environmental Quality Commission, American Samoa Government, to the Governor of American Samoa.

PART A ENVIRONMENTAL POLICY AND IMPLEMENTATION (Findings)

## POLICY

- 1 The American Samoa Government (ASG) is now in receipt of the Economic Development Plan 1979-1984 (EDP). It anticipates receipt in the near future of a companion document, the Quality of Life Plan (QLP). The recently compiled Coastal Zone Management Plan (CZMP) has been authorized by the ASG with effect from 1 September 1980 but has yet to receive (the anticipated) Federal endorsement. The EDP and the QLP together form the comprehensive Development Plan for American Samoa, while the CZMP is a Federally funded program complementary to the EDP and covering the whole territory.
- 2 There exists a Government policy on economic planning reflected in the EDP. Government policy on social planning will be reflected in the forthcoming QLP. Physical planning policy and proposals are incorporated in the CZMP. All major projects and all public works have to conform with the Federal

BOCA Code and be designed by professional engineers or architects. Government policy on agriculture and fisheries, reflecting a move towards self-sufficiency and self-reliance, is policy for the relevant Departments and is reflected in the EDP. A new initiative on energy policy summarized in a statement by Lt. Governor Tufele Li'a to the Senate Committee on Energy Resources and Energy Needs for Pacific Insular Areas sets the tone for energy policy.

There is a Government policy on water purity.

3 In the context of development on a territorial basis, there are guidelines for rural development in the CZMP and within the Department of Agriculture. Outer islands are always included in considerations and proposals generated from Tutuila. Government policy on urban development is not entirely clear, but there is a zoning plan of limited utility.

4 Government priorities in the above areas (paragraphs 1-3 above), arise mainly from a desire for 'Samoanization' and greater economic independence.

#### LEGISLATION

5 Environmental legislation exists in the form of the State Drinking Water Act; the Water Pollution Control Act; the Smean Health Code; and regulations which guide the Environmental Quality Commission. These ASG enactments are supplemented by Federal legislation including the Endangered Species Act (no listings); the Coastal Zone Management Act;

The Federal Water Pollution Act; the Pesticides (FIFRA) Act which are paramount amongst a multitude of Federal legislation.

6 Traditional legislation consists of a vast complex of oral tradition and laws which contain environmentally related provisions pertaining to traditional Samoan life.

7 No known environmental conventions have been entered into by the ASG but Federal agreements, some of which may have application in American Samoa.

8 The ASG would welcome information on other conventions specific to the South Pacific region.

ANNING

9 Environmental factors are considered in economic planning (see paragraph 1-2 above).

10 There are several resource, land use surveys and water studies. These will be embodied in the Coastal Atlas, which includes all land, being compiled under the CZMP.

11 The data referred to in the previous paragraph, which will appear in the Coastal Atlas, will be used in physical planning.

- 12 Environmental assessments are made in the form of Environmental Impact Statements for projects involving Federal funding, but this requirement has often been waived. The CZMP will reintroduce and reinforce environmental assessment procedures. Environmental evaluation is carried out by local agencies assisted by Federal agencies.
- 13 The ASG does not identify any problem with planning although it is concerned with policy implementation and enforcement.

#### ADMINISTRATION

- 14 Environmental policy is administered through the Environmental Quality Commission with sub-controls effected through the Public Health, Public Works, Public Safety, Parks and Recreation, Agricultural and Samoan Affairs Departments. Federal implementation arises in the main through the Coast Guard and the Army Corps of Engineers.
- 15 Implementation is effective in some sectors (e.g. control over the purity of drinking water) but there are shortcomings with regard to other projects.
- 16 There is adequate expertise for environmental assessment.
- 17 There is adequate expertise for comprehensive physical planning.
- 18 Many Departments and Agencies are involved in planning, and coordination is a problem. The CZMP indicates these shortcomings, and is intended to alleviate rather than add to them.

PART B ASSESSMENT (Findings)

## MAJOR ENVIRONMENTAL

## PROBLEMS

- 19 Environmental damage arising in association with major development projects (in construction) can be most clearly identified at present in the case of road construction, with its attendant problems of rehabilitation of areas of cut-and-fill, coral smothering with detritus and silt.
  
- 20 Environmental problems arising in urban areas are confined mainly to the downtown area where the disposal of non-degradable rubbish, the malfunctioning of septic tanks, traffic congestion and air quality degradation are identified. Odors, water born effluents and sludge from the two fish canneries are environmental nuisances.
  
- 21 The rural areas' main environmental problems would include (as in urban areas) the disposal of non-degradable rubbish and disused motor vehicles, control over the movement of livestock and a large population of neglected dogs plus a degree of soil resource neglect as a consequence of unsound agricultural practices.

- 22 In coastal waters littoral erosion arising from inadequate protection against wave surge energy has, in the past, removed considerable portions of the narrow coastal platform. Other problems include fish poisoning and dynamiting with a consequent reduction in the variety of fish stocks. There is also a problem in the containment of oil spills and the dislocation of coastal outline due to irregular reclamation practices including land filling with rubbish. The effects of uncontrolled destruction on **the** outer edges of the 223 acres of mangrove and wetland areas on the costal marine environment is a problem that needs assessment.
- 23 There are no known outside pressures on American Samoa for environmental degradation through destructive resource exploitation or toxic waste disposal.

RESEARCH AND  
MONITORING

- 24 Regular surveillance is undertaken in connection with the monitoring of safe drinking water and the ambient water quality - tested on a monthly basis. Four major permits are issued under the National Pollution Discharge Elimination System - for the two canneries and the two municipal sewerage disposal plants. There are two minor permits issued to the Marine Railway and the Chevron oil depot.



- 25 Suspected problems that require further study include grid sampling in Pago Pago harbor of the water borne discharge from the canneries and monitoring the land surface disposal of cannery sludge in regard to its effect upon adjacent aquifers.
- 26 Further measurement and monitoring of changes in environmental conditions are indicated for the study of inshore marine ecology over time, air quality in the harbor area and the previously referred to harbor-wide surveillance in Pago Pago harbor.
- 27 Although the above studies are not all underway, Federal assistance can usually be called upon, particularly since the inception of the CZMP.

PART C MANAGEMENT (Findings)

STATUS OF  
RESOURCES

- 28 a) Soils Soil quality is probably in net decline since World War II because of poor horticultural practice and past injudicious use of pesticides and herbicides.
- b) Water Water purity is under close surveillance, and the condition of catchment and groundwater, as well as the delivery system and disinfection system is now substantially improved. Government water systems serve over half the population to a high standard of purity.

- c) Crops Interest in farming has waned since World War II and crop production has reduced. There is now less emphasis on farming because of alternative employment opportunities in American Samoa (in the canneries) and in the United States. Crop production capacity has not been seriously impaired and the potential could, undoubtedly, be realized beyond any previous peak.
- d) Animal Husbandry The Production of pigs and chickens is on the increase as a consequence of direct Government encouragement and assistance.
- e) Mangroves The largest stand is at the Pala lagoon area which is under some ecological stress and has, as a consequence, been designated as an area for special attention under the CZMP.
- f) Reefs and Lagoons The coastal areas have been fairly extensively degraded through pollution, coral smothering, fish dynamiting and fish poisoning - particularly in Pago Pago harbor, Pala lagoon and the more populated inlets.
- g) Fisheries It is believed that whilst fish varieties have been reduced there has probably not been a reduction in the quantum of biomass. Villagers regard shoreline recreational fishing as traditionally important and take about 15% (300 tonnes) of all fish consumption for this purpose. Reef fishermen claim that they do not catch as much as they want or as efficiently as they used to and thus it can be adduced that the reef areas are over-fished.
- h) Conservation, Parks and Reserves The new CZMP and the Territorial Comprehensive Outdoor Recreation Plan 1980-85 set out a comprehensive system of parks (active and scenic), forest and nature reserves.

There are seven National landmarks, and three conservation zones.

- i) Endangered Species There are no listings.
- j) Local Energy Resources There are no fossil fuel resources.  
Investigations are underway for the harnessing of direct solar, wind, small hydro, waste heat, wave, oceano-thermal, geo-thermal and biomass energy.
- k) Minerals No minerals are mined for export and local mineral activity is confined to rock quarrying and sand dredging - which is now very closely regulated.
- l) Human Resources Locally satisfactory conditions obtain in regard to water purity, the quality of housing, curative and preventative medicine and local employment conditions. Sport and other recreational facilities will be satisfactorily catered for by the TCORP. There is concern about metabolic disorders arising from nutritional imbalance which results in overweight conditions, exacerbated by smoking. It could also be noted that there is a substantial outmigration of American Samoans (over half now living off island) and a concomitant flow in of other Pacific Islanders (Western Samoans, Tongans, Fijians).
- m) Infrastructure Broadly satisfactory - the transport service is efficiently provided from the private sector. Roads, utilities and services, of a high standard, are provided by Government.

#### MAJOR

#### DEVELOPMENT TRENDS

29 Human settlements are encroaching rapidly upon the limited land area -

a process which has vastly accelerated since World War II. Traditional communal ownership of land abets this low density expansion but constrains Governmental, commercial and industrial expansion.

- 30 The EDP advocates industrial diversification but for the present the fish canneries are the major industrial concern. They are constrained by land shortages and generate aesthetically undesirable atmospheric (odor) pollution, strain the absorptive capacity of the harbor waters and encounter disposal problems for the concentrated sludge.
- 31 Agriculture is fairly stable but, as previously noted, there is now less emphasis on farming which, if regenerated could reach higher levels of production than before. (It was noted that some basic foodstuffs, bananas and taro, were, in fact, being imported when previously they had been grown at home.)
- 32 There are no known proposals for the development of forestry - in all probability forestry practice on the steeper slopes would be environmentally disadvantageous.
- 33 The condition of inshore fishing has been noted in paragraph 28 f - g above. There is a clear demand for more shoreline recreational/subsistence fishing, which is presently under study, to determine whether management regulations will be necessary. Aquaculture, in the Pala lagoon, has been beset with environmental and management problems.

MANAGEMENT  
APPROACHES

- 34 The coastal zone has been broadly planned with a view to managing it in an integrated way (see paragraphs 1-18 PART A).
- 35 There is a Disaster Contingency Plan designed to cope with water shortages, hurricanes, tidal waves, fuel shortages, food shortages and so on.
- 36 The ASG is interested in regional contingency planning for oil spill control and other disasters.
- 37 There is no explicit policy on population limitation, nor is there an expression of man-to-land carrying capacity ratios. (A family planning programme exists, but its major emphasis is on child-spacing rather than birth limitation). With approximately half the population residing off island, yet potentially poised to return (particularly in retirement) the man/land ratio is in a situation of serious potential imbalance.
- 38 There are comprehensive proposals for land usage and zoning but there is nothing much in the way of specific designs. This process is complicated by the traditional land ownership pattern.
- 39 There are plans to rehabilitate the environment of Pago Pago Harbor

and Pala lagoon but this may be an uphill struggle against industrial and economic expansion. Sea walls are being rehabilitated at great expense along parts of the eroded coast, and sanitary land fill areas are being refurbished.

PART D REQUIREMENTS FOR NATIONAL ACTION (Recommendations)

NEW ACTIONS

- 40 It is not considered necessary to create any new Government structures or bodies for dealing with environmental matters. The Coastal Zone Management Plan, the Quality of Life Plan and the Territorial Comprehensive Outdoor Recreation Plan have comprehensive provision for land use planning, resource conservation, pollution control and environmental protection.
- 41 Preventative action relative to new problems will arise in the case of future expansion of the fish canneries. New detection mechanisms not needed, there is an awareness of the need for surveillance and the available legislation is sound, but there are problems envisaged with the enforcement of environmental standards.

REQUIREMENTS

- 42 Education
- a) Schools Biological science units at both elementary and secondary levels incorporate studies on ecology - communities, food-webs etc

Units on conservation will be produced in the near future. An investigative approach which encourages curiosity and appreciation of the environment is fostered.

b) Public Public information programmes pertaining to conservation and the environment are produced by different Departments as relevant to their fields of responsibilities. Agriculture, Public Health, Public Safety and Territorial Energy office have long standing programmes, while Marine Resources and Parks and Recreation plan to develop theirs soon. Existing public programmes use both television, printed material, posters, as well as discussions with local communities. Needs for programmes or materials have not been expressed.

c) Planning American Samoa curriculum developers would like to receive any programmes and materials developed by the SPC and would like to be kept better informed of developments in environmental education in the region as a whole.

43

#### Personnel

Adequate expatriate expertise is available but there are problems with local appointments. In particular, Samoan graduates in the environmental field are in short supply and are difficult to attract back from the United States where they receive their training. One possibility is that training scholarships be coupled to a contract arrangement for the candidates return to the service of the ASG for an agreed time, subject to the retention by Government of a bond if this arrangement is broken.

There is a need for more information to be disseminated on environmental awareness and it is anticipated that this will take place under EPA agreement. Again, with tactical analysis, there is a need for more American Samoan graduate personnel and supervisors to be trained under contract. Likewise, with environmental planners and managers, Samoan trainees are needed to take over from the available expatriate personnel. Insofar as environmental experts and specialist researchers are concerned, the ASG attitude is that services of this kind can usually be obtained from the United States although it would be happy to share facilities provided under the auspices of the APC.

44 Facilities and Equipment

A need has been identified for an environmental expanded laboratory to complement the CZMP and QLP. A need also exists for the central collation of a vast body of officials and academic reports on the social and natural science findings. It is not possible to share Federally sponsored facilities with other Governments, although the ASG will be happy to form a liaison with other Pacific Island Governments in a spirit of regional cooperation.

45 Outside Expertise

The ASG considers it is always able to call upon Federal assistance, It has established links with the Environmental Protection Agency (see paragraph 44 above.)



Information A wide range of existing surveys, reports and research have been categorised in PARTS A B AND C of this report. There are many freely available, but dispersed, and a case arises for their control, collation and storage. The need for research, resources, surveys, land capability analysis and monitoring have been identified previously (see particularly PART C, Findings on MANAGEMENT).

Regional environmental information services and a data bank would be useful to the ASG particularly in regard to tidal waves, regional fish catches, pollution at sea and tropical technical information. There is a need to record in written form traditional knowledge concerning Samoan natural history.

7 It is suggested that the South Pacific Regional Environmental Program considers the inclusion of resource recycling, the carriage of toxins by air and at sea, management control for toxic standards and extra-terrestrial pollution in its programme.

(i)

We acknowledge the able assistance of the American Samoa Government Office of the Environment which arranged interviews and facilitated the execution of our work.

We are grateful to:

Mr. Palauni Tuiasosopo	Assistant to the Governor
Mr. Pati Fai'ai	Assistant to the Governor and responsible for the Environment
Ms Mary Buzby	Environmental Programme Coordinator Our invaluable local team member
Mr. Togipa Tausaga	Environmental Quality Commission Inspector and our local team member

We held discussions with the following:

Mr. William Buzby	Manager, Civil Division, Public Works Department
Mr. Ma'atifa Eleasaro	Safe Drinking Water Enforcement Officer
Mrs. M. Eleasaro	Public Health Nurse
Chief A. U. Fuimaono	Secretary of Samoan Affairs
Mr. Peter Galeai	Assistant Director, Economic Development and Planning Office
Mr. Matt Le'i	Acting Director, Energy Office
Ms Matilda Lolotai	Administrative Assistant, Office of Tourism
Mr. William Keener	Technical Asst. Energy Office
Ms Charlotte Mauldin	Economic Development Coordinator, Office of the Governor
Mr. Fred Pele	Manager, Building Branch, Public Works Department
Mr. Joseph Pereira	Director, Economic Development and Planning Office
Mr. Edwin Remund	Director, Public Works Dept.
Mr. Lyle Richmond	Executive Assistant to the Governor