ORIGINAL : ENGLISH



# SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAMME

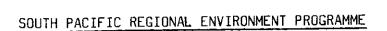
SOLOMON ISLANDS

COUNTRY REPORT

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# SOLOMON ISLANDS

# Country Report

#### 1. POPULATION AND AREA

1.1 Although the population of the Solomon Islands is only 225,000 in a country of almost 30,000 km2, there is a potential problem of population pressure on environment and resources. With a growth rate of 3.4% per year, population growth is among the highest, if not the highest, in the world. The overall population density of 7 per square kilometre is low but in some areas, it is much higher and is already causing problems of environment/resource degradation. The islands are distributed over a sea area 1,600 km long and 800 km wide. Over 90% of the population is rural.

#### 2. ENVIRONMENTAL MANAGEMENT POLICY AND IMPLEMENTATION

## Policy

- 2.1 A generalized policy of consideration of environmental factors in resource development exists, but has not been clearly expressed nor effectively enforced. For a five-year development plan now being prepared, the following basic policy points are being considered:
  - development objectives to be set in the context of environmental opportunities and constraints, resource availability and sustainability;
  - comprehensive and integrated natural resource management, a high-priority national interest;

- basic objective of development is long-term sustainable use of environment and resources;
- environmental obligations of government decision makers and agencies, and supportive obligations of public;
- establishement of an appropriate system of controls to protect environment, resources and people;
- establishment of an environmental management unit;
- introduction of appropriate environmental legislation and environmental assessment procedure;
- application or adaptation of suitable custom conservation practices to modern development needs;
- appropriate international action to protect marine environment and resources;
- monitoring of environmental change;
- further studies of environment and resources;
- promotion of and support for environmental education and training;
- a National Conservation Strategy.

# <u>Legislation</u>

2.2 Items of legislation which include environmental management provisions, either specifically or through regulation making powers, are:
Forests and Timber Act 1969/77,
River Waters Act 1964/68,
Penal Code 1963/70,
Environmental Health Act 1980,
National Parks Act 1954,
Wild Birds Protection Act 1914/30,
Town and Country Planning Act 1979,
Mining Act 1968/69,
Fisheries Act 1972/77,
Lands and Titles Act 1968/70, and
Local Government Act 1963/70.

2.3 Some improvements in existing legislation are indicated and new legislation will be needed to control the use of chemicals and to provide adequately for nature conservation requirements. New legislation is likely to be required, eventually, to accomodate the requirements of environmental assessment.

## Administration

2.4 Though a general responsibility for environment is a component of the portfolio of the Minister of Lands, Energy and Natural Resources, no specific environmental management administration yet exists. Certain environmental management functions rest with Ministries responsible for the administration of the legislation listed in 2.2. A limited measure of co-ordination of environment management concerns has been achieved through an interim inter-Ministry Committee on Environment.

# 3. STATUS OF RESOURCES

#### Water, Air and Soils

- 3.1 Water is a basic requirement for living and for development, but legislation and management policy for water catchment protection is inadequate. Some rural and urban water supply catchments are deteriorating.
- 3.2 There is no air pollution problem, but observations of smoke dispersal in an area zoned near the capital for industrial development indicate a potential for the trapping of air pollutants beneath atmospheric inversion layers.
- 3.3 The country is of typical tropical rainforest type, and soils are not particularly rich. There is concern that techniques should be developed and applied to minimize the disturbance to these soils by logging and by short-rotation shifting agriculture.

#### Forests

- 3.4 Forests are extensive. Forestry policy has been concerned primarily with logging, with some reforestation. There is a need for the application of improved methods of logging and for more effective use of logging waste.
- 3.5 There is a considerable untapped body of traditional knowledge of Solomon Islands forests and their plants and animals. Modern scientific knowledge of these forests is scanty. A consequence is that the information needed for new forms of sustainable resource management is lacking. New policies are being considered to make adequate allowance for continuance of the many and varied traditional uses of forests and forest products.

# <u>Minerals</u>

There has been little mineral development in the Solomons. However, if and when large-scale mineral development projects are initiated, some considerable and dramatic social and environmental problems will need to be faced. The prospect of bauxite mining at Rennell Island has served to alert people to the difficult resource development dilemma which a mining project would pose.

### **Energy**

3.7 Energy, like water, is a resource which is fundamental to rural living. As with water, an apparent abundance of wood has given rise to a low level of awareness of the importance of wood energy and a growing shortage of this resource in densely populated areas. The careful, sustainable exploitation of indigenous energy sources of wood and hydro power is of crucial importance for future development.

# Wildlife

3.8 Apart from traditional uses of wildlife, there is some commercial exploitation of turtles, crocodiles and megapodes. Exploitation of the former two is undertaken with reference to management policy and legislation. There is need for improvements. Policies for use and protection of megapodes, butterflies and parrots are lacking, but consideration is being given to the formulation of policies based on principles such as:

- adequate animal population and habitat research;
- provision for continuing traditional utilization of wildlife:
- any commercial utilization of wildlife to be carefully controlled with respect to traditional needs, available wildlife habitat, and the viability of populations of the species concerned;
- development of wildlife management techniques suitable for village scale enterprises.

# Marine Coastal Resources

- Unregulated, locally extensive cutting of mangroves is underway at a small number of locations. This, considered together with the recent emergence of proposals for industrial scale logging of mangroves a type of operation which has caused resource waste and environmental problems in South-East Asia points to a need for a balanced mangrove resource use policy based upon a range of compatible uses.
- 3.10 In comparison with the ecological knowledge which many coastal Solomon Islanders have inherited from the accumulated experience of ancestors, the modern fisheries biologist's knowledge of reef and lagoon fisheries and their management is crude. It is hoped that the best of traditional knowledge and technology can be used as a basis on which to build modern small-scale fisheries.
- 3.11 Sediment disturbance from erosion of adjacent land surfaces has been reported from one or two small areas. "Outbreaks" of shellfish poisoning in parts of Western Province appear to have been associated with muddy river flows.
- 3.12 Most of the Solomons' population now lives along seacoasts. Some coastal infrastructural development is vulnerable to coastal erosion, storm surges and tsunamis. Engineered coastal defences are very expensive to install and to maintain, and the only really practical policy for coastal development is one based on "working with nature" avoiding unstable areas, establishing buffer strips and encouraging natural processes of coastal protection. Guidance for planners and engineers is needed.

# 4. ENVIRONMENT AND RESOURCE MANAGEMENT PROBLEMS

# Protected Areas

4.1 There is limited legislative or administrative provision for protected areas and little understanding of their value. A system of protected areas, which would include critical fisheries habitats, water catchments, village forests for traditional usage, representative samples of the nation's exosystems, and significant archaeological and geological sites, is lacking.

# Waste Management

- 4.2 As it once was in the Solomons, one's wastes could be disposed of without difficulty. Today's new ways of living involve increasing amounts and variety of materials which do not disappear and some of which are poisonous. Attitudes to waste disposal need to change to suit the new circumstances.
- 4.3 Solid waste from oil palm processing is being used as boiler fuel, an example of a sensible approach to "waste". However, liquid organic wastes from the same industry pollute the adjacent sea. Wood waste and sawdust cause localized pollution and health problems and are examples of avoidable resource waste.
- 4.4 No serious adverse effects on public health have yet resulted from raw sewage discharge to the sea. There is, however, concern about possible large-scale health problems. Difficult and potentially expensive decisions on sewage treatment and disposal are now being faced.

# Environmental Contamination

4.5 Some concern has been expressed about the use of chemicals. Their extensive use for large-scale rice production on Guadalcanal has been questioned. DDT is a most valuable chemical for control of malaria-carrying mosquitoes, but this is at some environmental cost, and safer substitutes are hoped for.

- 4.6 To date, these has been little trouble from spills of ship's cargoes. Oil pollution has not been a significant problem, though bad habits are becoming established through casual practices of discharge of oily bilge waters from local vessels in ports.
- 4.7 Spills of vegetable oil from land storage tanks into the sea have occurred. Procedures and equipment to deal with spills of this type, and those which will someday occur at sea, do not exist.
- 4.8 There is a very special category of environmental contaminants which has resulted from the fact that, during World War II, parts of the Solomon Islands were used as battlegrounds. The country has inherited from this activity a legacy of death and disablement from explosives and poisons which the nations involved have failed to destroy or remove.
- 4.9 Explosive war debris has been used as a source of "dynamite" for destructive illegal fishing, depleting the resources of places like Langalanga Lagoon. Sasavele villagers at Roviana Lagoon could bring more of their limited land into agricultural production if numerous scattered, unstable mortar bombs were to be destroyed. People at Black Post, Guadalcanal, need to be sure that piles of leaking drums of wartime arsenic have been effectively sealed off by recently constructed concrete jackets.
- 4.10 As the pace and extent of development grows, and settlements spread, these wartime hazards will become more visible as public health problems and as constraints to effective resource use.

## Environmental Konwledge

- 4.11 There is a serious shortage of knowledge of the national environment knowledge which is necessary for ascertaining its resource potential, for developing effective management policy and practices and for identifying environmental constraints on development.
- 4.12 Introduced modern forms of resource development tend to overwhelm traditional environmental knowledge and practices. This process of extinction of traditional knowledge is reinforced by a mistaken belief that all traditional knowledge and technology is irrelevant to modern development needs.

# 5. ENVIRONMENTAL MANAGEMENT FOR SUSTAINABLE DEVELOPMENT

- Urban living is a recent phenomenon in the Solomon Islands and until recent years virtually all Solomon Islanders lived in rural areas where they had opportunities to develop a basic understanding of the man-environment interrelationship. Such community understanding is being weakened by external influences by introduced forms of development which lack sensible consideration of environmental opportunities and constraints, and by a formal education system which fails to provide the environmental understanding formerly obtained through traditional village education.
- 5.2 The rural orientation of Solomon Islanders provides hope for a sensible approach to sustainable resource development for modern living. On the other hand, the absence of community and school education in basic ideas of environment/resource use and protection is cause for concern.
- 5.3 Following early initiatives by the Solomon Islands Museum towards introducing environmental considerations in development planning, SPC's Regional Ecological Adviser reported in 1975 on his assessment of environmental management needs. In 1977, an Interim Committee on Environment was established, chaired by the Permanent Secretary, former Ministry of Natural Resources. A four-day workshop on environmental assessment was held in 1978 for participants from government and industry.

With the assistance of the Commonwealth Fund for Technical Co-operation, an Environmental Management Adviser was appointed for a six-month period in 1981. The Adviser's report - Environmental Management for Sustainable Development in the Solomons: A report on Environment and Resources - forms the basis of moves towards the establishment of an environmental management unit with assessment, advisory, monitoring and education/training functions.