

ENVIRONMENT NEWSLETTER

Quarterly Newsletter of the South Pacific Regional Environment Programme

Contents:

NUMBER 5

APRIL - JUNE 1986

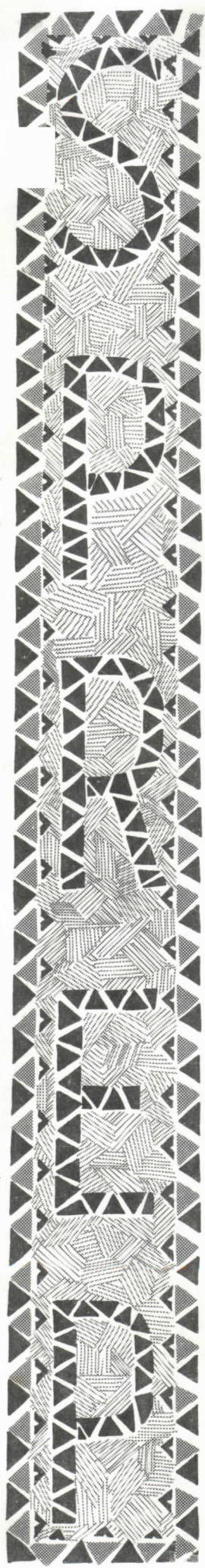
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The South Pacific Commission's ENVIRONMENT NEWSLETTER has again commenced publication after having been in 'retirement' since issue No. 4 (March 1982). It will be produced on a quarterly basis commencing with No. 5 (April - June 1986). News articles and comments are welcomed for future issues.

South Pacific Regional Environment Programme

(SPREP)

South Pacific Commission



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Original text: English

NEWS IN AND AROUND THE REGION

PALAU'S "SEVENTY ROCK ISLANDS" GIVEN MORE PROTECTION

Palau's Ministry of Natural Resources, SPREP and the International Union for the Conservation of Nature and Natural Resources (IUCN) are working together to strengthen the management of NGERUKEWID RESERVE (also called SEVENTY ROCK ISLANDS).



Originally established as a wildlife reserve in 1956, this island group is one of the most spectacular in all the Pacific. The islands are composed of raised limestone 30 m in elevation with markedly undercut shores. Habitats found in the reserve include limestone forest, thickets, and coastal scrub. Rare species include the Micronesian megapode, the Palau scops owl, saltwater crocodile and some endemic palms. Its surrounding beaches and waters offer nesting areas for turtles (hawkesbill and leatherback) and harbour much marine life (including dugong) and coral reefs. In earlier times, the islands were protected by ancient taboos. But now these have gone and not been replaced by any effective management. This has meant the area is increasingly under threat from fishermen using dynamite; poaching of giant clams, megapode eggs, crocodiles and dugong; and various development proposals.

Following a proposal put to the Third South Pacific National Parks and Reserves Conference held in Apia, Western Samoa, June 1985, activities are now underway in Palau to:

- (a) assess the resources of the Ngerukewid Islands, identifying any potential threats.
- (b) prepare a management plan for the reserve; and
- (c) give on-the-job training in marine park management to staff at the Division of Marine Resources.

ALUMINIUM CANS RECYCLED

Empty beer and soft drink cans, so often seen lying around towns in other parts of the Pacific and elsewhere in the world, will not be found littering Honiara. There, people collect cans for which they are paid 20 cents per kilo (approximately 48 cans). The aluminium cans are then taken to a locally operated machine which crushes the cans and places them into a container ready to be shipped back to Australia for reprocessing into other aluminium products.

This project, operated by local community groups was initially established two years ago with assistance from the Lions Club of Guadalcanal, Honiara Town Council, BJS Agencies (Honiara), the South Pacific Regional Environment Programme (SPREP), the Honiara Ports Authority, and the Australian and New Zealand High Commissions. The project has proved so successful that other South Pacific countries are looking to Honiara as an example for setting up similar, or even updated, can recycling activities.

Recently a representative of the Vanuatuan Department of Industries, Mrs Eileen Nganga, visited Honiara to watch the operation there and determine the feasibility of can recycling in Vanuatu. Many other South Pacific countries are keen to commence such operations to ensure that garbage, often a real problem for small islands due to their limited amount of land, is disposed of effectively and where possible, recycled.

VANUATU DEVELOPING ENVIRONMENTAL ADMINISTRATION

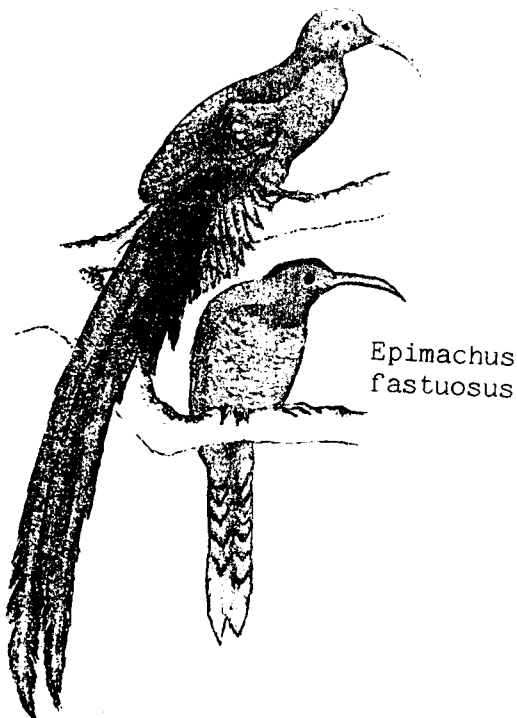
The Government of Vanuatu has expressed concern to ensure that, as national development proceeds, the quality of the physical environment is maintained and where possible, enhanced. Since independence six years ago, several external reports on environmental policy and management have been commissioned by the Government and, with the preparation of the second development plan in 1986, the opportunity has arisen to assess the current situation and define those issues with which the Government should be principally concerned. The result is to achieve closer integration of environmental administration with development planning.

The Government has thus sought the assistance of the physical planning adviser of the ESCAP Pacific Operations Centre (EPOC), to: (i) identify, in consultation with Government officials and other relevant bodies, issues likely to be of most significance to the maintenance and enhancement of environmental quality; (ii) review existing reports of environmental issues in Vanuatu; (iii) evaluate the adequacy of existing legislation, administrative structures and procedures; (iv) recommend a programme of action; and (v) identify further technical assistance deemed necessary.

(Source: ESCAP Environment News, Vol. 3, No. 4, Oct.-Dec. 1985.)

BIRDS OF PARADISE UNDER THREAT

In the first major book written by a Papua New Guinean on Birds of Paradise, Navu Kwapena reveals that four of the six species he studied are under threat of extinction because of inevitable changes to their habitat. As the former Prime Minister of Papua New Guinea, Mr M.T. Somare, wrote in the forward to Navu Kwapena's The Ecology and Conservation of Six Species of Birds of Paradise in Papua New Guinea;



'We Papua New Guineans face the dilemma of progress. We cannot partake of benefits of social and economic progress without changing the face of much of our countryside. Mr Kwapena points out that about ninety-six per cent of our people in remote areas of the mainland (where most Birds of Paradise occur) are worried about the decline of these birds. He also points out that the cause is due to factors directly related to man's population growth - habitat changes, better access to remote areas, shotguns and such... If we are to save our national heritage - Birds of Paradise and the many unique forms of natural history existing in our nation - a tremendous number of studies of this nature must be undertaken by Papua New Guineans.'

(Source: N. Kwapena, The Ecology and Conservation of Six Species of Birds of Paradise in Papua New Guinea)

COUNTRIES OF THE SOUTH PACIFIC TO REVIEW SPREP ACTION STRATEGY AND
PRIORITY PROJECTS FOR SPREP ASSISTANCE

At the Third South Pacific National Parks and Reserves Conference held in Apia, Western Samoa, 1985, a regional Action Strategy outlining practical and specific steps to be taken in establishing and managing a system of protected areas in the South Pacific was adopted. The Action Strategy is intended to provide guidance in the development and implementation of nature conservation and protected areas management policies in the region over the next four (4) years, and will be reviewed at the Fourth South Pacific National Parks and Reserves Conference to be held in 1989. The broad goals of the Action Strategy expected to be achieved by 1989 are as follows:

- (i) The establishment of at least one protected area in each country and territory of the region;
- (ii) An increase to 40 per cent in the number of ecosystems receiving some kind of protection; and
- (iii) The establishment of 50 new protected areas in the region.

Having the mandate over the Action Strategy, the South Pacific Regional Environment Programme (SPREP) is now in the process of formulating its own Work Programme to be implemented over the 1986-89 period based on the immediate and priority requirements of its member countries submitted to the Apia Conference.

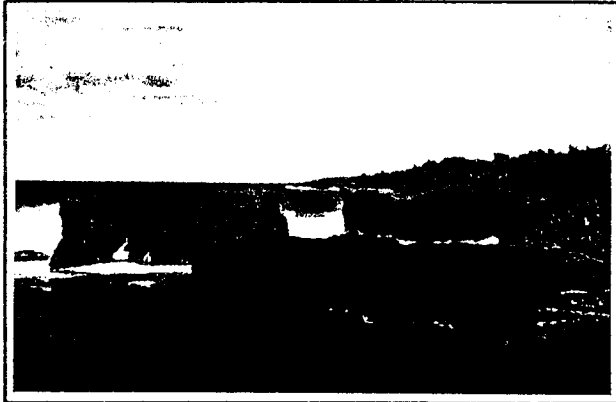
To ensure that the SPREP Work Programme is consistent with current national and regional priorities, the member countries are required to review their respective "wish lists" submitted to the Apia Conference. Any amendment to the original lists must be endorsed by the Environment authority of the respective countries. The SPREP Work Programme will be presented to a meeting of country representatives for approval. Such meeting is scheduled for September 1986. To ensure the timely completion of the Work Programme prior to the September meeting, countries are asked to send in their suggestions before end June 1986. All communications pertaining to the Work Programme should be addressed to:

The Co-ordinator
South Pacific Regional Environment Programme
South Pacific Commission
B.P. D5
NOUMEA CEDEX
New Caledonia.

NEW ZEALAND ASSISTS SOUTH PACIFIC PARKS

The New Zealand Government is assisting the establishment of the network of parks in the South Pacific Region through its financial support of a Protected Area Management officer soon to be seconded to SPREP.

The need for such an officer was identified by the governments of the South Pacific Region when they met at the Third South Pacific National Parks and Reserves Conference in Apia, Western Samoa, June/July 1985. His work will involve the implementation of the Action Strategy for Protected Areas in the South Pacific Region developed at that Conference.



Action Strategy for Protected Areas in the South Pacific Region

Prepared during the Third South Pacific National
Parks and Reserves Conference, Apia, Western
Samoa, 24 June - 3 July 1985

CNMI NORTHERN ISLANDS PRESERVED

In November 1985 voters in the Commonwealth of the Northern Marianas Islands said "yes" to a Constitutional Amendment which sets aside four of the uninhabited islands in the north of the Commonwealth for purposes of conservation and preservation. Professor L.G. Elledge of the University of Guam Marine Laboratory, who has long championed the changes ratified by the voters praised the outcome of the election, stating that these Northern Islands were unique in the Pacific. They are valuable as a genetic pool and breeding ground for birds and species such as the coconut crab and contain many unique species of plants and insects. They are also a "geologist's paradise" including both active, aging and very old volcanoes. Whilst it is believed that the remote location of these islands will assist in their protection, an educational programme, to develop a sense of pride in these unique resources, is favoured.

(Source: Coastal Views, December 1985, Vol. VII, No. 3.)

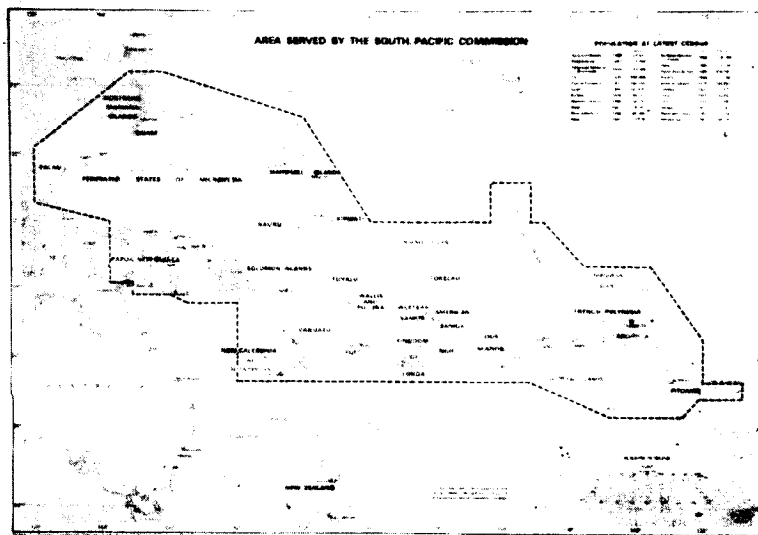
SCIENTIFIC COOPERATION BETWEEN FRENCH POLYNESIA AND
OTHER SOUTH PACIFIC COUNTRIES TO BE INCREASED

An initial set of decisions has been adopted to strengthen cooperation of French scientists with other South Pacific countries.

The Minister for Research and Technology has laid before the Council of Ministers a communication on the prospects for civil scientific cooperation with other countries of the South Pacific region, for the purpose of implementing the decisions announced by the President of the Republic on his return from Moruroa on 15 September, 1985.

- (1) Five measures are to be taken in the short term: increasing the number of French (graduate) fellowship-holders and research-workers sent to the Pacific on scientific missions; increasing the number of trainees or students from neighbouring countries invited to join in their work; offering training in their centres for national service volunteers who will subsequently work as experts and be made available to the countries of the region; promoting the comparison by scientists of the countries concerned of the findings of their research; initiating a plan to modernise the fleet of oceanological research vessels.
- (2) In the medium term, and in agreement with the countries of the region, an over-all plan will be proposed. It will be based in particular on France's knowledge in the field of medicine and tropical agronomy, exploitation of the ocean, remote sensing and renewable energy.
- (3) scientific and technical cooperation with Australia will be strengthened by increased efforts in areas of study having a high degree of spill-over into industry, in particular space, telecommunications, geological and mining research, and by initiating or strengthening programmes of common interest, particularly those regarding oceanography and meteorology.

(Source: "La Dépêche" French Polynesia)



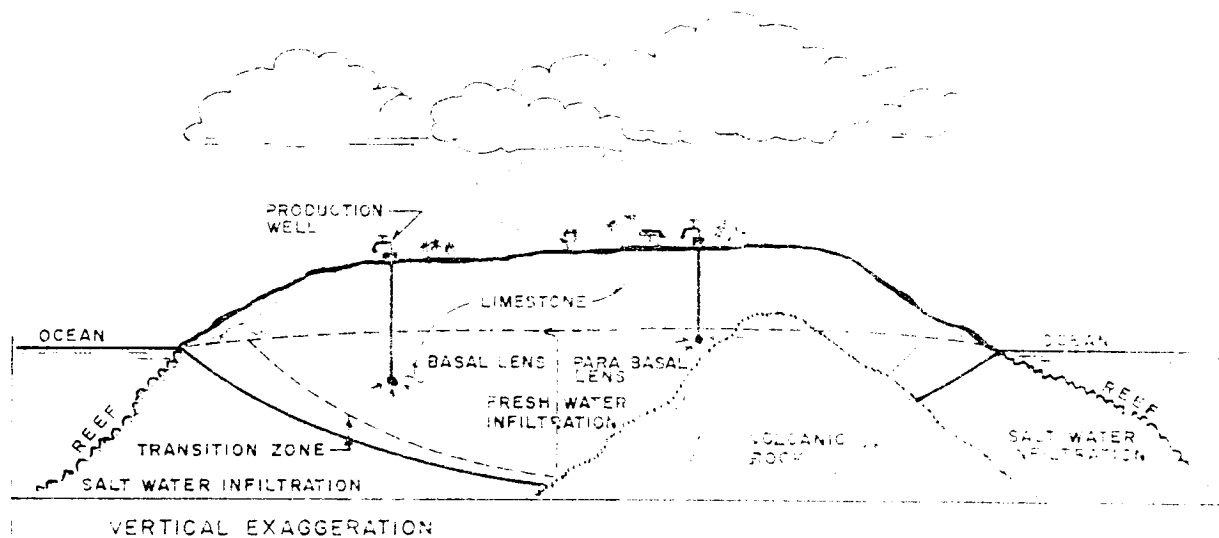
NEW ZEALAND ESTABLISHES NEW CONSERVATION DEPARTMENT

After extensive consultation with government departments, conservationists, forestry unions and farmers, the New Zealand Government has established a new Department of Conservation with responsibility for: (i) national parks, reserves and protected natural areas, protected indigenous forests, protected inland waters, wild and scenic rivers, wildlife, historic places; (ii) forest parks and other multiple use state forestry areas not used for wood production; (iii) rural Crown land not used mainly for agriculture or forestry and some parts of foreshores and coastal waters. This new department and a Ministry of the Environment, aimed at strengthening machinery of environmental scrutiny, came into being in April 1986.

GUAM MAINTAINS HIGH WATER QUALITY

With the most extensive water quality monitoring network in the western Pacific, Guam through activities of its Environmental Protection Agency (GEPA), is keen to maintain its existing high water quality.

Guam's remote location and the influence of existing wind and ocean currents gives the island the unique and enviable position of having waters that are not being degraded by pollution discharges from neighbouring land masses. It is common for underwater visibility to exceed 150 feet and for these marine waters to support an abundance of coral reef life. The continuing challenge is to maintain this existing superior water quality.



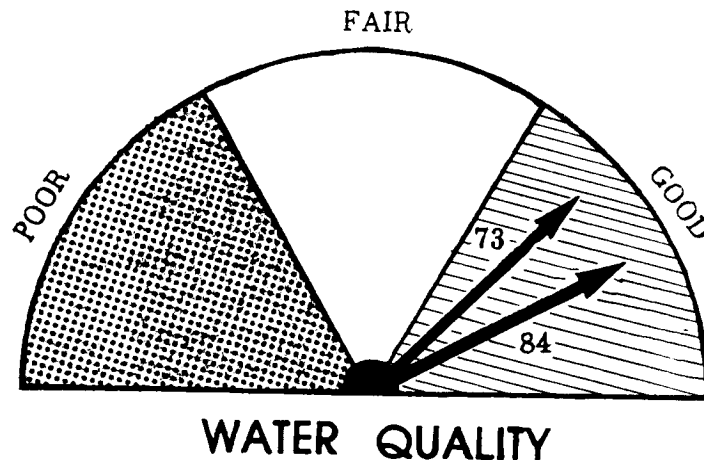
SCHMATIC DRAWING SHOWING THE NORTHERN GUAM LENS

Environmental monitoring efforts commenced in 1973, but systematic sampling and analysis did not begin till 1978 when Guam's first Water Monitoring Strategy was completed, this Strategy being revised and updated in 1985. Currently seven rivers and eight marine complexes are sampled for physical/chemical parameters, and eleven locations surveyed for the biological monitoring network. Thirty marine recreational waters are sampled weekly for bacterial contamination and extensive routine monitoring of groundwater resources undertaken.

Monitoring efforts are backed up by legislation and regulations, namely the Water Resources Conservation Act, Water Pollution Control Act, Toilet Facilities and Sewage Disposal Act, Guam Water Quality Standards and the Sewer Connection Regulations. Public participation has been an important part of Guam's decision making process which was emphasised particularly during the water quality management planning process.

Although some water pollution problems existed in the past, mostly associated with sewage discharge, sewage leachate to the ground, and stormwater runoff, the more organised approach to sampling has resulted in the maintenance of good water quality. However, the Guam EPA fully recognises that without instituting necessary restrictions and controls their water quality could very rapidly deteriorate.

(Source: Territory of Guam, Water Quality Report 305 (b) 1986, Guam Environmental Protection Agency)



AUSTRALIA TO BAN DUMPING RADIOACTIVE WASTE

Mr. Barry Cohen, Minister for Arts, Heritage and Environment, has announced a Commonwealth Government decision to amend the Environment Protection (Sea Dumping) Act to prohibit the dumping of radioactive wastes and other radioactive matter at sea. "The Government is vigorously opposed to the dumping of radioactive wastes at sea", Mr. Cohen said. "At the South Pacific Forum Meeting in August the Prime Minister signed the South Pacific Nuclear Free Zone (SPNFZ) Treaty which commits parties not to dump radioactive waste at sea within the zone and to prevent the dumping of radioactive waste in their territorial sea. Amendment of the Sea Dumping Act will apply this ban to Australian vessels and in Australian waters". (Australian waters as defined under the Sea Dumping Act extend 200 nautical miles out from Australia's coastline). Mr. Cohen said that the Environment Protection (Sea Dumping) Act implements the London Dumping Convention, which Australia ratified on 21 August 1985.

(Source: ACF Newsletter, November 1985)

DEFORESTATION DISCUSSED IN ASIA-PACIFIC REGION

Bangkok was the venue for an Expert Group Meeting on the Environment and Socio-Economic Aspects of Tropical Deforestation held 28 January to 3 February 1986 at which the South Pacific Region was represented by the SPREP Co-ordinator, Iosefatu Reti, and by a participant from Papua New Guinea.

In his opening statement, the Executive Secretary of ESCAP, Mr S.A.M.S. Kibria, stated that "trees and forests have always played a very important role in the process of development of human societies and have been responsible for the sustenance of life. Ironically, today, the forest is both agent and victim of development." He further stated that the rate of deforestation in the Asia/Pacific Region has been estimated at 2 million hectares per year attributable to agricultural expansion practised by pioneer settlers from densely populated areas, shifting cultivation, commercial logging and firewood collection. He called on participants to make appropriate recommendations for the conservation and management of tropical forests, paying particular attention to measures for heightening public awareness of the importance of conserving tropical forest resources, whilst keeping in view the environmental and socio-economic dimensions of the problem.

The meeting stressed that protecting tropical forests for their agricultural, medicinal, industrial, scientific, research, educational, recreational, cultural, spiritual and conservation (soil, water, climate, wildlife, etc.) values, was considered of high priority. But noted that poor people could not give weight to these forest values as long as they were desperate for food, fuel and other products from the forest. It is necessary, therefore, to incorporate the importance of forest values into the thinking and attitudes of politicians so that better and sympathetic considerations could be given to the protection and conservation of the remaining tropical forests of the region.

The meeting recommended that priority be given to: (i) adoption in national constitutions, national plans and policies the concept that tropical forests are to be utilised and managed in trust for present as well as for future generations; (ii) forestry policies and programmes so designed, as to encourage peoples' participation from their initial stage to final implementation; (iii) forest policies integrated with general development policies; (iv) expansion of mass media publicity and extension activities for forestry conservation and development of agro-silva-pastoral systems.

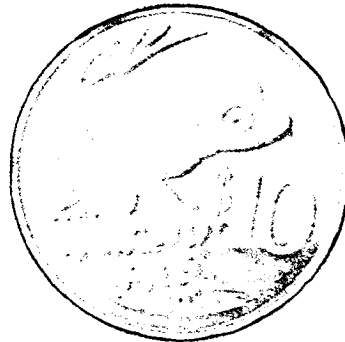


SOUTH PACIFIC COUNTRIES PRODUCE COMMEMORATIVE COINS
FOR 25TH ANNIVERSARY OF W W F

Three South Pacific countries (Tonga, Fiji and Western Samoa) are participating in a worldwide fund raising programme of issuing a commemorative coin to mark the 25th Anniversary of the World Wildlife Fund (WWF). At least 25 countries are expected to issue a coin (in silver or gold) each depicting an indigenous species representative of wildlife in that country. During a special ceremony at WWF-International's headquarters in Gland, Switzerland, WWF President HRH The Duke of Edinburgh was presented with the first coin to be minted from the collection. The programme is to be launched worldwide this year with sales commencing in West Germany.



Humpback Whale of Tonga



Fijian Ground Frog

IMPORTANCE OF ENVIRONMENTAL EDUCATION RECOGNISED FOR SOUTH PACIFIC

The United Nations Environment Programme's continued emphasis on environmental education and training was stressed at a Meeting of Experts to Develop a Programme of Action for Environmental Education and Training in Asia and the Pacific held in Bangkok, Thailand in November 1985.

At this meeting an Action Plan was developed providing a comprehensive and integrated framework for the development and implementation of formal and non-formal activities in environmental education and training, as well as public awareness at the national, sub-regional and regional levels.

A working group on Formal Education was established to encourage, promote, foster and enhance environmental education in the following areas: information exchange; environmental economics; coastal zone management; toxic chemicals; dangerous processes and hazardous wastes; and acid rain.

The working group on Non-formal Education placed high priority on: sensitisation of decision makers and professionals to the need to incorporate environmental concerns in decision-making; promotion of environmental awareness in the community; and encouragement of sound environmental practices in business and industry.

Representing the South Pacific Region, Dr Jenny Bryant of the University of the South Pacific played an active role in ensuring that the specific needs of our region were reflected in the Action Plan.

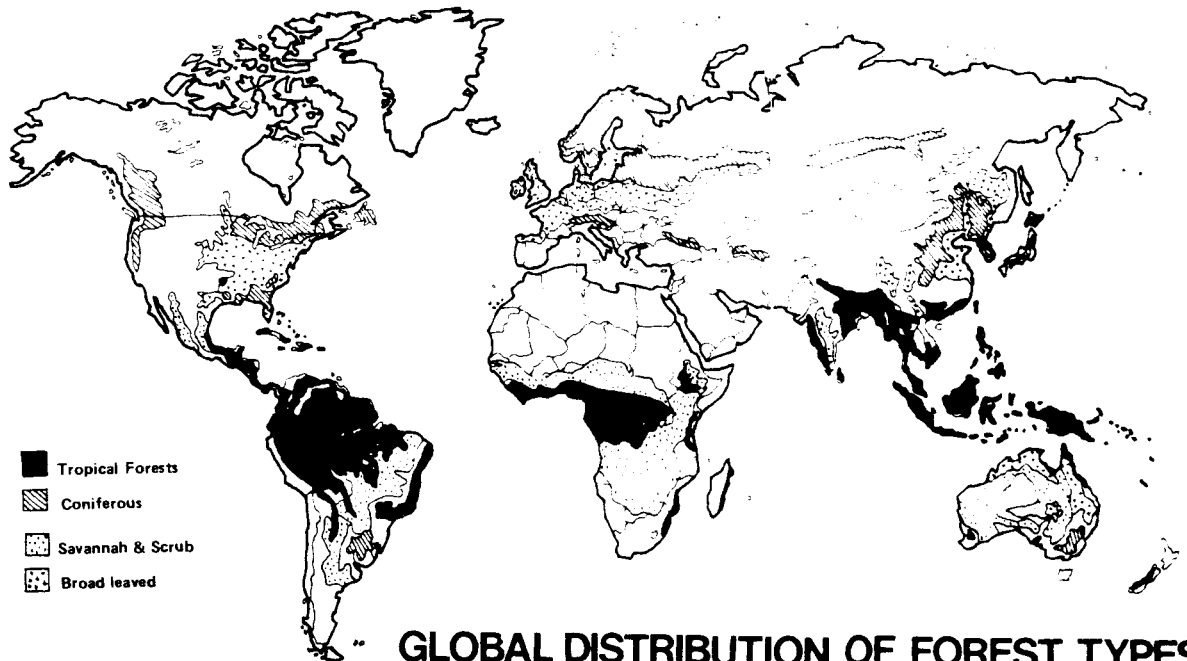
WORLD ENVIRONMENT NEWS

64 COUNTRIES MEET TO TALK ABOUT 'SICK' FORESTS

In Paris during February heads of State and representatives of 64 countries met to "consult around the bedside of sick forests" which are dying out at the rate of 11 million hectares per year. This conference, SILVA, was opened by the French President, Mr. François MITTERAND, under whose initiative it was organised. The extraordinary gathering, attended by such dignitaries as the German Chancellor, the Presidents of Senegal, Burkina-Faso and Somali, the Prime Ministers of Holland and Belgium, united twenty countries of the industrial world with twenty seven countries of dry Africa with observers from seventeen other African and East-European countries. "Solidarity" was the aim of the Conference as they discussed both the wasting away of the northern forests and the dramatic deforestation of Africa resulting in accelerated desertification of whole countries.

Long distance atmospheric pollution (acid rain) is strongly suspected to be at the origin of the wasting away of the forests of industrial countries, the progression of which has been spectacular. In 5 years half of the German forests have been affected while Switzerland, Italy, Austria and France are in turn making acquaintance with the green plague. In eastern Europe the situation is catastrophic, particularly in Czechoslovakia and in RDA. In dry Africa, the rainfall has dropped during the last 20 years, the problem being accentuated by intensive tree clearing. More than one million hectares of forest are devastated each year and the desert is encroaching at the rate of 10 Kms per year transforming the savanna into completely arid land. Whilst recognising that these were not the only forest problem areas, it was considered enough to handle at that meeting, it being hoped that this example would lead to similar meetings on tropical and equatorial forests.

(Source: A.F.P. 3/2/86)



FEATURES

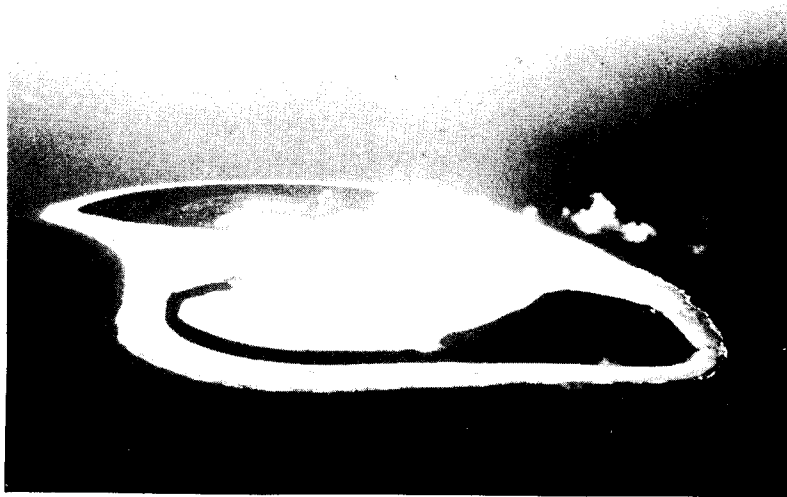
"ISLANDS" NEXT TARGET THEME FOR IUCN

At its Fourth Meeting, held in Gland on 4-5 March 1986, IUCN's Programme Advisory Committee decided that Island Conservation would be the next theme to be developed by IUCN. Following a year of careful preparation, it is planned to become fully operational in 1987. This paper outlines some of the considerations that led to this decision.

WHY ISLANDS?

Islands differ from larger land masses in many ways which are important for conservation:

- . Because they are isolated and because their evolutionary processes are different than for continents, islands contain many species of plants and animals found nowhere else.
- . Many island species - flightless birds, for example - display adaptations which ill-equip them for survival in the face of habitat changes, new predators, or human intervention; thus they are more vulnerable to extinction.
- . Natural resources of islands are scarce in both variety and quantity, so they cannot tolerate the mis-management of resources to the extent continents can.
- . Because of the scarcity of natural resources, islands require different approaches to ensuring the continuing flow of raw materials, goods and services required by their inhabitants.
- . While many island peoples have developed traditional means for conserving their resources and environment, new pressures from population growth, single-crop agriculture (e.g., sugar cane, bananas), tourism, and political factors have surpassed the capacities of these more traditional methods to maintain a balance between people and resources.
- . Island people tend to develop their own ways and means to conserve natural resources, and can show an exceptionally sensitive appreciation of natural processes.



Many island territories - notably in the Pacific and Carribean - have recently gained independence and now require assistance to develop their own capacity to manage resources. While many islands are overpopulated relative to their resources, they seldom have the critical mass of people needed to develop strong conservation institutions and resource management specialists. This problem is exacerbated by the fact that their isolation makes pooling of human resources and institutions among island nations expensive and difficult. At the same time the new Law of the Sea Treaty greatly expands the area of jurisdiction of these nations and brings new management responsibilities and opportunities for ensuring proper use of coastal and marine resources.

While islands do face important and unique difficulties, they can also provide a resource for improving approaches to conservation management. They are microcosms of problems faced on larger land masses, thus allowing pilot or demonstration projects to be carried out under relatively simple conditions where the limits to the ecosystem are clear. The problem of insularity is common to most islands, so a worldwide approach which unites Carribean, Pacific, Indian Ocean, and Atlantic islands could be both effective and welcome. Finally, many of the traditionally-used island approaches to conservation management could be applied in promoting sustainable development in continents and in other island groups far away from their origins.

In short, islands have many problems and opportunities in common, which merit common discussion and sharing of experiences. An opportunity thus exists to bring together island nations and territories to explore, determine, and implement a common agenda for cooperative action in conservation and development. Interested parties in such a programme include industrialized island nations (Japan, Great Britain, New Zealand), nations in the tropics dominated by a single large island (Madagascar, Sri Lanka, Cuba, Papua-New-Guinea), industrialized nations with tropical island territories (USA, UK, France, Netherlands, Spain), archipelagic states in the tropics (Indonesia, Philippines), small island nations (Seychelles, Vanuatu, Jamaica, others in the Carribean, Pacific, Atlantic, and Indian Ocean), other nations with significant islands as part of a larger mainland country (Greece, Australia, Chile, USA).

(Source: IUCN Publication)

YOUTH AND THE ENVIRONMENT

"THE ENVIRONMENT AND WHAT IT MEANS TO ME" was a topic set for an essay competition organised for primary school children by the Economic and Social Commission for Asia and the Pacific (ESCAP) as part of the activities for the International Year of Youth. Following is the composition by Anup R. Joshi of Nepal, one of the winners:

My environment is my surrounding. It's what impinges on my sense organs. It might be the morning sun that filters in through my window, or the flower in my garden. It might be the sound of a crying child in the neighbourhood or the aircraft thundering in its flight. All that I see, hear and smell constitutes my environment.

My environment means a lot to me. The surroundings in which I live affect me and my psyche to a very large extent. A calm and beautiful environment makes me feel very much at ease, while a harsh environment which is full of noise and without natural beauty disturbs me. To give an example, I was recently at Godavavari for a day. As soon as I entered the cosy setting of the place surrounded by green hills and natural beauty I immediately felt at peace. The sound of the gurgling rivulets and the chirping of the birds somehow made me feel that I was home. Away from the maddening crowd of the city I felt calm. Spending a day there was really invigorating.

On the other hand, I feel very much disturbed when I have to walk the crowded streets of Asan and Indrachowk or to sit in a noisy room. It is worse if I have to tolerate the vile odours that emanate from dingy localities like that in Patan and Bhaktapur. I live in a very peaceful place free from the storming crowds of the city and where there are trees and green surroundings and so I never did learn to tolerate polluted environments.

Modern science is increasingly beginning to show that an unspoilt natural environment is a necessity for the overall well-being of the human population. Shouts and screams, jazz and modern music, sellers' cries and horns of vehicles together constitute the thundering hubbub of a city. It is becoming very difficult to live in such a place for it is very hard to concentrate and be at peace with such distractions all around. Psychologists say too much noise is very bad for the mind.

Deforestation and destruction of the natural habitat of animals and birds is another problem that is before us. Large quantities of timber are being cut to make room for the growing population and also for firewood and other purposes, especially in developing countries like Nepal. This process is causing an extraordinary amount of ecological imbalance which in turn is affecting the whole animal kingdom including humans. Some of the major effects of deforestation are soil erosion which in turn causes landslides etc., climatic change which brings about less rainfall, cooler environment and floods.

Water pollution by chemicals from industrial waste, and waste from family homes poses yet another threat to the beautiful lakes, rivers and seas. Says an eminent ecologist, "There may soon be more polythene bags in our seas than fishes". The statement is threatening enough to make us aware of what we are doing to our water.

All this together with the modern atomic threat (radioactive pollution which pollutes almost anything that comes its way) should make us think twice before spoiling our world. Pollution is not a regional problem. It engulfs the whole world from the dingy lanes of our city to chaotic New York in America. And this is why ecologists and world organisations are seriously thinking about the problems. They are advising big and small nations alike on how to preserve environment and enhance natural beauty together with our lives. They are giving out loans and donating money to countries like Nepal in the hope of facilitating reforestation projects. But all this help makes sense only if we accept it and work hard to spend the money and technology proffered to us in the right channels.

We should also work as individuals at lower levels. Since in preserving our environment we are preserving and helping ourselves we should not hesitate to sweat out a few more trickles while working in alignment with these big organisations. Carrying a few small trees home and transplanting them in the backyard or cleaning the locality around the house can do a lot in preserving our environment.

(Source: ESCAP, Environment, Development and Youth,
Bangkok, March 1985)

COURSES IN ENVIRONMENTAL SUBJECTS

SOUTH PACIFIC REGION

The Universities in our region offer an interesting range of courses in environmental subjects as follows:

Papua New Guinea University of Technology, Lae provides education and training in all areas of technology required for island development. Realising the environmental impact of technology, the University has incorporated environmental training into all its courses rather than establish it as a separate programme. For further information contact:

Head,
Department of Forestry,
Papua New Guinea University of Technology,
P.O. Box 793,
LAE,
Papua New Guinea.

University of Guam provides environment-oriented associate and BSc degrees in Agriculture, Biology, and General Sciences and a Master of Science in Biology with reference to Marine Biology. For further information contact:

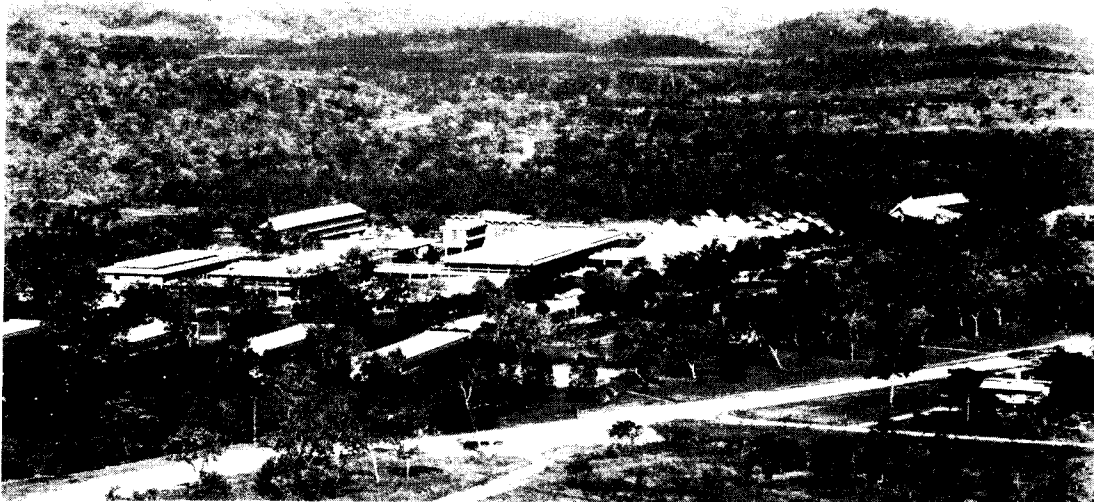
Head,
Graduate School and Research,
University of Guam,
UOG Station,
MANGILAO,
Guam 96913,
U.S.A.

University of Papua New Guinea offers environmental courses as part of BSc or BA degrees in a variety of specialist fields. Biologists, chemists, geographers, geologists, and physicists receive such courses as Environmental Chemistry, Food Chemistry, Environmental Physics, Ecology, Terrestrial Ecosystems Geology of the Western Pacific, Geomorphology, Soils and Biogeography.

A pre-graduate diploma in Land Administration stresses management skills and knowledge relevant to land management and optimum use of terrestrial resources.

A two year post-graduate diploma is offered in Physical Planning to meet government needs in training physical environment planners. Programmes available are for urban and rural development; residential area planning; transport planning; and environmental planning. For further information contact:

Dean of Science,
University of Papua New Guinea,
Box 320 University Post Office,
WAIGANI,
Papua New Guinea.



1974 aerial view of the University of Papua New Guinea

University of the South Pacific, Fiji offers a wide range of degree, diploma, and in-service courses devoted to environmental management training. A BSc is offered in Environmental Studies and a BA in Social Sciences which are designed for multi-disciplinary training oriented to island resource development programmes. The BSc in Environmental Studies is a 4-year programme with courses in Biology, Physics, Chemistry, Earth Science, Marine Sciences, Physics and Mathematics at the School of Natural Resources and courses in Geography, Sociology and Economics at the School of Social and Economic Development. The exact programme is determined by individual requirements.

Short, in-service courses on environmental issues can be provided on request and tailored to specific regional or national needs. For further information contact:

Registrar,
University of the South Pacific,
P.O. Box 1168,
SUVA,
Fiji.

RECURRING POST GRADUATE COURSES IN ENVIRONMENTAL SUBJECTS OUTSIDE
THE REGION

Of particular interest to people from UNESCO member countries in our region (namely Fiji, Papua New Guinea, Tonga and Western Samoa) are the following courses for which UNESCO makes a grant, to the course organiser, for fellowships for qualified participants from developing countries. Those interested should apply to the course director preferably through their National Commission for Co-operation with UNESCO. The course director makes the final selection of candidates for fellowship in consultation with UNESCO.

(i) SIX MONTH POST-EXPERIENCE COURSE ON WATER RESOURCES
TECHNOLOGY IN DEVELOPING COUNTRIES (Birmingham, U.K.)

Organised by : Department of Civil
Engineering,
University of Birmingham,
Birmingham B15 2TT

Duration : January - July (annually)

Deadline for application : 1 October

Language of the course : English

Aims and programme of the course

The course provides post experience training by integrating appropriate aspects of engineering hydrology and water and river engineering for water resources management in developing countries. The main areas covered are surface and groundwater hydrology, reservoir design and management, irrigation, water irrigation, water quality and health, water collection treatment and distribution, sanitation, basic hydraulics, flood alleviation, urban drainage, engineering economics, planning and management. Computing, and statistical methods and revision mathematics are also part of the syllabus.

Information and Application: Dr. N.T. Kottegoda, Department of Civil Engineering, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, U.K.

(ii) INTERNATIONAL POST-GRADUATE COURSE ON HYDROLOGY (Budapest, Hungary)

Organised by : Research Center for Water Resources
Development (VITUKI), H-1453,
Budapest 92, Hungary

Duration : 6 months, February - July (annually)

Deadline for application : 15 September

Language of the course : English

Aims and programme of the course

The aim of training is to promote the transfer of professional experience in the fields of science and technology related to water and environmental protection, especially to nationals of developing countries, by post-graduate training over a period of six months. The study programme of the course has been compiled to meet as far as possible the requirements of practicing hydrologists.

Information and application: Dr. K. Stelczer, Director, Research Centre for Water Resources Development (VITUKI), International Post-graduate course in Hydrology, P.O. Box 27, H-1453, Budapest 92, Hungary.

(iii) INTERNATIONAL POSTGRADUATE COURSE IN ECOLOGICAL APPROACHES TO RESOURCE DEVELOPMENT, LAND MANAGEMENT AND IMPACT ASSESSMENT IN DEVELOPING COUNTRIES (Dresden, German Democratic Republic)

Organised by Unesco, UNEP and the Centre for Protection and Improvement of Environment (Berlin) of the Ministry of Environmental Protection and Water Management of the German Democratic Republic in cooperation with the Technical University Dresden.

Duration : October to July (yearly)

Deadline for application : 30 April

Language of the course : English

Aims and programme of the Course

The main purpose of this course is to provide training for officials from developing countries in the ecological aspects of development, resource management and impact assessment. The post-graduate course is designed to provide a comprehensive and inter-disciplinary understanding of the major ecosystem types in tropical countries, and to impart skills in the use, management and protection of such ecological systems.

Information and Application: Centre for Protection and Improvement of Environment Project Coordinator, Prof. Dr. E. Seidel, DDR 119 Berlin, Schnellerstrasse 140, GDR. Tel. Berlin 63 52 821. Cable: Centre of Protection and Improvement of Environment, or via the nearest Embassy of the German Democratic Republic.

(iv) RESEARCH TECHNIQUES IN CHEMISTRY (Kensington, Australia)

Organised by : University of New South Wales,
School of Chemistry
Sponsored by the Government of
the Commonwealth of Australia

Duration : 9 months, from March to
December (annually)

Information and Application: The Head, School of Chemistry,
University of New South Wales, Kensington, N.S.W. 2033, Australia.

CALENDAR OF EVENTS

2nd International Symposium on Indo-Pacific
Tropical Marine Biology, 22 June - 16 July 1986
Guam.

Contact: Marine Laboratory,
University of Guam,
UOG Station,
MANGILAO
Guam 96913.

Aquatic Plants/Water Treatment
Resource Recovery Conference, 20 - 24 July 1986
Americana Dutch Resort Hotel,
Lake Buena Vista, FL 32830,
U.S.A.

Contact: Aquatic Plants/Water Treatment
Resource Recovery Conference,
Director of Conference, IFAS,
1041 Mc Carty Hall,
University of Florida,
Gainesville,
Florida 32611,
U.S.A.

Twentieth International Seminar on
National Parks and Other Protected Areas, 29 July - 27 August 1986
The University of Michigan,
Ann Arbor, Michigan,
U.S.A.

Contact: Hugh Bell Müller,
Director,
International Seminar on National Parks
and other Protected Areas,
School of Natural Resources,
The University of Michigan,
Ann Arbor, Michigan 48109-1115,
U.S.A.
Telephone: (313) 763. 4029.

4th Congress of the International
Association for Ecology (INTECOL),
Syracuse, New York, U.S.A.

10 - 16 August 1986

Contact: Professor F.B. Golley,
Institute of Ecology,
University of Georgia,
ATHENS, GA 30602,
U.S.A.

6th International Congress on
Pesticides,
Ottawa, Canada.

10 - 17 August 1986

Contact: Dr. H.V. Morley,
Station de Recherche Agricole
de l'Université,
Sous-bureau postal universitaire, London,
ONTARIO,
Canada.

13th International
Conference on water
Pollution Research and
Control (IAWPRC)
Rio de Janeiro, Brazil

17 - 22 August 1986

Contact: IAWPR Secretariat,
Alliance House,
29-30 High Holborn,
LONDON WC1V 6BA,
United Kingdom.

WAIGANI SEMINAR, The University of
Papua New Guinea.

7 - 12 September 1986

Theme: The Ethics of Development.
One of the 5 workshops will be on
"Ethics and Environment" (exploiting
natural resources and respecting the
environment; the ethics of land
holding and land transfers; ethics
and technological change; ecological
values).

Contact: Dr Lance Hill,
Biology Department,
The University of Papua New Guinea,
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Papua New Guinea.
Telephone: 245413.

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