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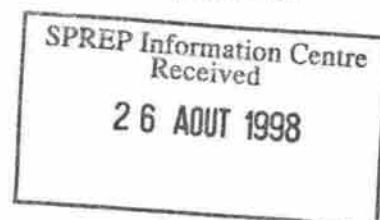
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TOPIC REVIEW No.2

PARKS AND RESERVES IN THE SOUTH PACIFIC

by

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South Pacific Commission
Noumea, New Caledonia
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SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAMME

Noumea, New Caledonia

TOPIC REVIEW

PARKS AND RESERVES IN THE SOUTH PACIFIC

by

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SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAMME TECHNICAL MEETING

NOUMEA JUNE 1981

TOPIC REVIEW PAPER : "PARKS AND RESERVES IN THE SOUTH PACIFIC"

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WHY PARKS AND RESERVES

In his report on a six week study tour of national parks and reserves in New Zealand, Kalati Poai of the Department of Agriculture and Forests of Western Samoa had this to say:

"National Parks belong to the people. Every man, woman and child in the country has, as a heritage, these areas which are set aside forever to give pleasure to present and succeeding generations. Thus, those who use the parks have responsibility to themselves and to others to treat this great heritage with care and respect.

Reserves are very important in the country. There are many important things in our life that could become rare. If we do not preserve or protect some of our lands and sea, these will be lost."

This South Pacific assessment of the role of parks and reserves in the total environment recognises their role as a resource for human enjoyment, as a reservoir of genetic diversity and as a heritage for the country and the world. This perception of the wide role of parks and reserves is not always appreciated in the wider world but the concept of protected areas is part of the South Pacific way of life, as illustrated in tapu forests, for example.

As well, parks and reserves have been seen in many countries as a key mechanism in maintaining the life support systems necessary for human survival and to meet human aspirations. Increasingly, parks and reserves are recognised as basic elements in balanced resource management. In this context they have an important economic role as well as their role as part of the world heritage.

WORLD CONSERVATION STRATEGY

The World Conservation Strategy, launched in 1980, suggests a comprehensive approach to what it describes as "living resource conservation for sustainable development". The Strategy was prepared by the International Union for the Conservation of Nature and Natural Resources (IUCN) with the advice, co-operation and financial assistance of the United Nations Environment Programme (UNEP) and the World Wildlife Fund (WWF) and in collaboration with the Food and Agriculture Organisation of the United Nations (FAO) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO).

The Strategy defines conservation as "the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. Thus conservation is positive, embracing preservation, maintenance, sustainable utilisation, restoration, and enhancement of the natural environment".

The Strategy goes on to point out that living resource conservation is specifically concerned with plants, animals and micro-organisms, and with those non-living elements of the environment on which they depend. It points out that living resources are renewable if conserved; and they are destructible if not.

The Strategy says that conservation is for people and aims to ensure the continuing use of living resources for the benefit and enjoyment of mankind, keeping in mind the ethical imperative expressed in the belief that "we have not inherited the earth from our parents, we have borrowed it from our children".

The Strategy says that living resource conservation has three specific objectives:

- * to preserve genetic diversity
- * to maintain essential ecological processes and life-support systems
- * to ensure the sustainable utilisation of species and ecosystems

The goal of the World Conservation Strategy is the integration of conservation and development to ensure that those modifications which occur to the world environment are such as will secure the survival and well-being of all people.

The establishment and sound management of protected areas - of parks and reserves -

is a key element in achieving the goal of the World Conservation Strategy and is an integral part of sustainable development.

PARKS AND RESERVES AND LIFE-SUPPORT SYSTEMS

Maintenance of essential ecological processes and life-support systems is one of the objectives of the World Conservation Strategy. The maintenance of such processes and systems is vital for all societies. Archaeological evidence of ancient civilisations testifies to the fate of societies which ignored the need to maintain life-support systems and ecological processes. Dr Arthur¹Dahl¹, at the South Pacific Conference on National Parks and Reserves in Wellington in 1975, cited an appropriate example. He referred to a small coral island originally surrounded by mangroves which had accumulated the sand, the material of which the island was built. However, the mangroves harboured mosquitoes so the island's residents cut all the mangroves to eliminate the mosquitoes. Said Dr Dahl, "This was fine - it was a lovely improvement to their environment - until the next hurricane. The last time I visited the island all that was left was a pile of sand about one foot high and five feet in diameter. There was nothing left of the buildings, the trees, the vegetation ... The mangrove had been an essential resource for the protection of that island, of the system on which the people depended. But it is only once we lose one of these natural benefits that we realise how valuable they are and that we must find enormous sums of money to re-establish that natural balance that we formerly had for free." Surely, a case where the establishment and management of those mangroves as a protected area would have been a key to maintaining the life-support system of that island.

The establishment of parks and reserves to protect watershed forests is recognised as vital to the life-support systems in many countries. Some areas of New Zealand were devastated by floods in the 1930s causing loss of life and the erosion of good agricultural land. The problem clearly stemmed from the shrinking of watershed forests through unwise land clearance on steep erodible slopes and through the damage caused to those forests which remained by the introduction of browsing mammals into an ecological system which had developed in the absence of browsing mammals. One step towards alleviating the problem was to establish remaining watershed forests as protected areas and to introduce management practices designed to reduce the number of browsing mammals.

This emphasises that parks and reserves may have specific and primary functions of watershed protection and soil conservation assuming even greater significance than their functions in scenery preservation, recreation and scientific value.

¹ Dr Dahl is Regional Ecological Adviser, South Pacific Commission

Further afield, the government of the South American nation of Colombia has expanded its protected areas in watersheds to ensure the maintenance of water supplies on which major industrial and residential development depends. The continuing supply of good quality water for human life and for industry is essential to the economic and physical well-being of millions of Colombians and the aim is to assure this supply through parks and reserves in the mountain hinterland.

The expansion of protected areas is taking place in the Republic of South Africa as an emergency step to reduce the sedimentation that is cutting into the economic life of reservoirs in the massive Tuva scheme bringing water to the Witwatersrand area of the Transvaal. Deforestation in the catchments of new reservoirs saw some filled with sediment before the scheme was commissioned, leading to a programme of land acquisition, reservation and reforestation to improve the ecological health of the watersheds. How much better and more economic would protection of the catchments have been in the first place.

PARKS AND RESERVES AND PRESERVATION OF GENETIC DIVERSITY

The World Conservation Strategy says that preservation of genetic diversity is both a matter of insurance and investment - necessary to sustain and improve agricultural, forestry and fisheries production, to keep open future options, as a buffer against harmful environmental change, as the raw material for much scientific and industrial innovation - and a matter of moral principle.

The establishment of parks and reserves has proved a key means of protecting genetic diversity, and of protecting species from extinction. It is in this area of species extinction that the issue of moral principle is particularly relevant. The involvement of human beings in evolution has brought many species to extinction and New Zealand is one country that does not have a good record in this field. However, major efforts are ^{now} being made through parks and reserves to protect those species which are seen as endangered. These include plants such as a rare ranunculus where a few plants remaining in an alpine environment were husbanded by a committed conservationist, their habitat given reserve status, and with careful field management the future of a threatened species seems assured. Efforts cover bird species such as the takahe, rediscovered in the remote mountains of Fiordland National Park in 1949 and given even greater protection by legislation creating the takahe's habitat as a Special Area within the national park with entry

restricted to those who could contribute to the survival of the species. The work being done through management of parks and reserves to ensure the preservation of endangered species in many countries captures the imagination of people the world over, as the producers of natural history television films have found to their economic benefit.

There is sound economic reason for seeking to preserve genetic diversity through the preservation of the widest possible range of plant and animal species. That is that no one can predict what species may become useful to mankind. In New Zealand, the plant Solanum aviculare, from being just another indigenous shrub, has become a commercial crop supplying a base for a growing pharmaceutical industry.

The heavy dependence of modern medicine on the world's plants and animals is pointed out by the World Conservation Strategy even though only a minute proportion of plants and animals have been investigated for their medical and pharmaceutical values. According to the World Conservation Strategy, preservation of genetic diversity is necessary to secure supplies of food, fibre and certain drugs and to advance scientific and industrial innovation.

Parks and reserves are important reservoirs of the world's genetic diversity.

PARKS AND RESERVES AND SUSTAINABLE UTILISATION

Sustainable utilisation is somewhat analogous to spending the interest and keeping the capital. The World Conservation Strategy points out that a society which insists that all use of living resources be sustainable ensures that it will benefit from those resources indefinitely.

The importance of sustainability of the world's fishing resources is highlighted by the shrinking numbers of the more dramatic species such as whales leading to international action for their protection with controls on harvesting and proposals to establish sanctuaries and similar protected areas. The movement towards marine reserves in many parts of the world is seen as an important means of ensuring there are protected resources from which stocks may be replenished for harvesting outside the reserve.

Two examples from Peru illustrate where establishment of reserves is working towards sustainable utilisation of wild species.

The people of the region of Junin Lake historically had burned the reeds on the surrounds of the lake to flush out rodents which were the people's major source of protein. Overburning reduced the habitat for the rodents with the inevitable reduction in the food supply. Now, a reserve has been established in the core area to protect totally the breeding habitat for the animals. The surrounding area has been designated a hunting zone and, in this way, the Peruvians hope to ensure maintenance of the species and a sustained yield for the people.

The other example from Peru relates to the vicuna, a member of the camel family, whose extremely valuable fine wool led to it being hunted almost to extinction. It was replaced largely by exotic sheep whose performance in the harsh environment of the montane valleys of the Andes was, to say the least, marginal. The Pampa Galeras National Reserve was set up to protect the habitat of the few remaining vicuna in Peru, by the 1960s an endangered species. Habitat protection and protection from illegal hunters, achieved at the cost of injury and even death to park guards, has seen the vicuna flourish and expand in numbers dramatically to the point where breeding stock can now be made available to Andean farmers for meat and wool production.

Interestingly, the Peruvians describe their parks and reserves as "units of conservation" and they are proving the appropriateness of that title. The same title could be applied to reserves to protect watershed forests or foreshores.

PARKS AND RESERVES AND THEIR HERITAGE VALUE

The heritage role of parks and reserves is an intangible value of immense significance. Such is the diversity of plants and animals, that each region of the world finds itself the custodian of part of the world's heritage.

This has been recognised in the UNESCO sponsored Convention for the Conservation of the World Heritage, which seeks to marshal international resources in a co-operative effort to assist in the protection of the diversity of natural and cultural features that together represent the heritage of all mankind.

The World Heritage Convention encourages nations to identify features of their

natural and cultural heritage that contribute significantly to the world's heritage in nature and culture. Many of the outstanding protected areas of the world have already been designated as World Heritage Sites, giving them an international stamp of quality and qualifying them to gain assistance from the World Heritage Fund where the country in which they are located lacks the resources to give adequate protection.

As an example, when Sagarmatha (Mount Everest) National Park in Nepal was made a World Heritage Site it received support in personnel training, forest restoration and cultural preservation from the Fund. All the natural World Heritage Sites are parks and reserves, from Yellowstone and Grand Canyon National Parks in the United States to the Galapagos National Park in the eastern Pacific.

But the heritage value of parks and reserves does not depend on international conventions. It belongs in the hearts and minds of the people of each nation. Kenya is one nation which has an immensely diverse resource in the wildlife protected in its national parks and reserves and its pride in nationhood is based to a very large extent on its pride in wildlife. The proximity of Nairobi National Park to the Kenyan capital and the opportunity this brings for school children to visit the park and see the nation's wildlife for themselves contributes much to Kenyan national pride in its wildlife heritage.

The same pride in a country's natural heritage can be observed among school children whose opportunities of seeing wildlife in its natural habitat is very limited. Crowds of school children visiting the natural history museum in Lima show obvious pride as they look at displays of Peru's heritage in wildlife from the flamingo whose pink and white colouring gave Peru her national flag and the Andean condor known in Peru and the world in the song "El Condor Pasa". Of course, one does not have to look beyond Papua New Guinea to see pride in wildlife honoured on the national flag.

What a tragedy, what a blow to national pride if all that future generations know of their unique heritage in nature is seen in museum displays and on the national flag!

Parks and reserves are a primary means of ensuring the preservation of representative examples of ecosystems and the survival of species - as New Zealand's National Parks Act 1980 says, for their intrinsic worth and for the inspiration they bring.

PARKS AND RESERVES AND THEIR RECREATIONAL VALUE

Inspiration, enjoyment and recreation are some of the benefits that people may gain from parks and reserves and the mountains, forests, seacoasts, lakes, rivers and other natural features they protect.

Much has been said in recent years in discussion on environmental issues about "quality of life" and, as the quest for material benefits has proceeded, there has been a growing realisation of the dangers of over-development and over-exploitation destroying the values and resources which give life a quality beyond that of mere survival.

The wise planning for and protection of parks and reserves are an integral part of creating and maintaining an environment which provides for quality of life. The great weekend and holiday exodus of people from the huge cities of North America and Europe illustrates a desire to find recreation in a more pleasant environment than the cities provide but the people concerned pay a high cost of both time and money in obtaining that recreation. How much better to seek to provide, as far as possible, for a range of recreational opportunities near where people live.

Much recreation is resource-based. The sea coast and rivers for swimming, fishing, boating or just relaxing in pleasant surroundings; forest for the variety and shade of trees and shrubs and the beauty of flowers and the opportunity of walking in a pleasing environment; hills and mountains for the opportunities they provide for photography or painting or the challenge they offer to climb; birds and animals for their fascination in behaviour, their beauty and grace. The meeting of land and water with its ever changing patterns, its variety of life in reefs and rock pools provides an exciting recreational resource.

In its system of national parks and reserves on the island of Upolu, Western Samoa has sought to protect resources of great recreational value and diversity. A

marine reserve provides a safe viewing area of coral and small fish for swimmers equipped with mask or snorkel; a national park has educational displays in a visitor centre built in traditional style where craft work can be seen and from which walking tracks give access to natural features; a recreation reserve protects access to a natural swimming pool with pleasant picnic spots; a scenic reserve has similar facilities as well as walking tracks and view points; a memorial reserve protects and interprets an historic feature; and a botanical garden being established will provide a display representative of the plants of the Pacific Basin.

Recreation is a key element in the constructive use of leisure time. The opportunities to enjoy leisure are tending to increase world-wide, whether from the benefits of affluence or the problem of unemployment. For whatever cause, parks and reserves provide an essential resource for the constructive use of leisure time in positive, healthy outdoor recreation. They provide, too, an essential resource for environmental education, giving the opportunity to observe natural processes at first hand and to appreciate, understand and assess the consequences of man-induced change in the environment. This / ^{leads} hopefully, to a more informed society capable of weighing up the implications of decisions which may affect the environment.

PARKS AND RESERVES AND THEIR VALUE FOR TOURISM

The importance of parks and reserves for tourism is nowhere more evident than in Kenya. Not only are the national parks and wildlife reserves a source of national pride, they are the cornerstone of the nation's tourism, an industry of immense economic importance to the Kenyan people in both foreign-exchange earning and in employment opportunities.

The same applies in many countries but, without sound planning, there is the danger of tourism and the development it brings destroying the very resource on which it is based.

The mountains and rhododendron forests of Nepal are major attractions which help make tourism the Kingdom's major earner of foreign exchange. Most visitors enjoy the mountains and forests on foot, camping as they go in large parties of porters and other support staff who depend for cooking and heating on the forests which are

relatively sparse and slow-growing at the high altitudes. The demand for fuel wood for these tourist parties was destroying much of the forest which is one of the region's main attractions to tourists and an essential source of fuel wood and building material for the Sherpa people of the region and a stabilising influence in an erosion-prone region. So His Majesty's Government of Nepal has sought to solve the problem by establishing the area as a national park with provision of lodges, campsites with water supply and waste disposal facilities and tight constraints on the use of fuelwood and encouragement for parties to be self-sufficient in fuel. At the same time, a programme of reforestation is under way with nurseries growing plants from seed drawn from the park itself. In this way, the Nepalese hope to see tourism in Sagarmatha National Park providing continuing economic benefit to the people of the region and to the nation as a whole without adverse environmental effects.

The same potential for environmental damage exists with tourism in coastal areas, usually through development being undertaken in such close proximity to the coast or with architectural designs so dominant and out of scale with the landscape that the physical developments dominate the beauty of the coast which was the reason for the tourist facility in the first place. Another potential area of tension comes from tourist development, usually catering for overseas tourists, pre-empting prime beaches to the exclusion of the people of the region with the inevitable and justifiable sense of injustice which results.

There is another very valid reason for not building too close to the coast, especially in an unstable coastal environment, and that is the obvious risk of damage to buildings from erosion. This seems obvious but it has not prevented the expenditure of millions of dollars on tourist development on the so-called Gold Coast of Queensland, Australia where buildings are so close to an eroding beach that costly and intrusive pipelines have had to be built to pump sand from an estuary to an open beach where bulldozers help endeavour to re-establish the beach that was the major reason for the development in the first place.

At the Second South Pacific Conference on National Parks and Reserves in 1979, the Minister of State for Social Welfare, Fiji (The Hon Ishwari Bajpai) pointed up the impact in his country of the construction of tourist hotels and

associated facilities. He quoted the loss of coral from sediment carried from construction sites in Pacific Harbour, the construction of man-made islands, groynes and the blasting of boat channels or reefs resulting in the "drastic alteration of the equilibrium between sea and shore (rendering) the coastline more vulnerable to erosion in times of tsunamis and storms".

The provision of adequate coastal parks and reserves is a logical and effective means of alleviating many of these problems so that natural resources are protected and available to all and so that costly buildings and other facilities are safeguarded from possible damage.

The need for adequate protected coastal areas is recognised, for example, by the Kingdom of Tonga. The Tongan literature on national parks and reserves, most of which are in the marine environment, points out that protected areas need to be sufficiently large to ensure that the ecosystem is not damaged by destructive activities in adjoining areas.

There is growing interest in nature tourism ... that is tourism which is based on the enjoyment of natural areas and observation of nature rather than visiting cities. Organised groups from such conservation bodies as the Sierra Club in the United States travel widely, using cities and towns only as arrival and departure points in the countries they visit, and concentrate their time in national parks. Organisations such as the American-based Linblad company specialise in nature tourism, visiting places which have experienced the minimum of adverse human impact, their schedules include visits to Pacific islands not normally frequented by tourists as well as to the Sub-Antarctic islands and to Antarctica itself.

As the world traveller becomes more and more blasé, so the wish to visit the unspoiled places will grow and the need will grow to establish management which will ensure that the unspoiled places are not spoiled. The parks and reserves concept is designed to provide the means of achieving adequate control. For example, the Linblad company, like anyone else, must obtain the permission of the New Zealand government to land on Sub-Antarctic islands such as the Auckland and Campbell Islands because of their importance as nature reserves. Landings are permitted only under strict conditions and under supervision, the same approach as has been adopted by the government of Ecuador in preserving the Galapagos National Park where guided visits protect nature and provide employment at the same time.

Some tourist companies are doing excellent work in nature tourism. One is the Tiger Tops organisation operating a lodge and tent camp in the Royal Chitwan National Park in the lowlands of Nepal. This is nature tourism at its best with the tourist company employing its own naturalists and guides and giving visitors a memorable experience involving travel by four-wheeled drive vehicle, elephant, raft and on foot. A director of this company has said that the confidence his company needs to continue to operate effectively is given by the assurance through national park status that the resource on which the enterprise is based will be protected in perpetuity.

PARKS AND RESERVES AS AN ELEMENT IN THE ENVIRONMENT

For the many reasons outlined - environmental, economic and emotional - there is a demonstrable need to identify key natural areas and to give them protection. The establishment of parks and reserves is the technique used most widely today to achieve this. But there is, of course, a cost. There may be direct productive benefit foregone in return for some intangible, potential, long-term benefit. It is impossible, for example, to measure in financial terms the difference between logging a stand of forest or preserving it if it happens to be the habitat of some rare bird species. These are judgements that can be made only by the government of the countries concerned but, if the decision is made to forego some immediate economic benefit, and the cost is unreasonably high for the nation concerned, then there is clearly a case for regional or international support to in some way compensate the people who make the immediate sacrifice. On the other hand, there may well be long-term economic benefit in foregoing development either indirectly through maintaining other life-support systems through protection of water resources, for example, ensuring a sustained yield from a fishery or from "reselling" the resource for tourism; an American national park superintendent has said of a stand of redwood trees in a national park that "the real dollars in those trees are tourist dollars."

Parks and reserves are not an optional extra but a vital part of the environmental scene. It is significant that in one part of the world where new land is being created - the Netherlands - an increasing proportion of the polders reclaimed from the sea is devoted to endeavouring to create nature, through forest and wild-life areas. How much better for those countries where the options are still open / - such as in the South Pacific to identify and set aside protected areas now in advance of potential pressures

so that the future is safeguarded.

"Ecodevelopment" is a word that has gained some currency in recent years. It envisages economic development being undertaken in a manner which is ecologically sensitive; that is compatible with and takes advantage of natural systems. Parks and reserves need to be seen as a part of eco-development as well as maintaining and enhancing the quality of human life.

NATIONAL PARKS AND RESERVES IN THE WORLD AND IN THE SOUTH PACIFIC

The concept of setting aside natural areas of sufficient size that they are able to maintain themselves as viable management units had its origin with the establishment of Yellowstone National Park by an Act of the United States Congress in 1872. Since that time, the national park concept has been widely adopted to protect significant natural areas in public ownership managed for conservation and visitor enjoyment.

Recognition of the concept can be gauged from the periodic publication of a United Nations List of National Parks and Equivalent Reserves prepared by the IUCN Commission on National Parks and Protected Areas with the co-operation of UNEP and UNESCO. The 1980 UN List records national parks and equivalent reserves in 119 countries and territories.

A significant degree of international support has gone into the establishment of parks and the setting up of the infrastructure basic to effective management. The United Nations agencies with interests in nature conservation have all contributed - UNEP, UNESCO and FAO. The private support for conservation has been marshalled mainly through the World Wildlife Fund while IUCN, serving as a bridge between governmental and non-governmental conservation interests has contributed significantly. So has bilateral aid and international co-operation.

However, in terms of international commitment, the Pacific has tended to be a forgotten region in conservation. There has been a tendency for the more dramatic wildlife - tigers, elephants, rhinos - to gain the lion's share of publicity and funding, with the lovable cuddly panda competing closely for popularity and finance. Perhaps the image of the South Pacific as an unspoiled paradise has left this region well down in world conservation priorities in spite of the fact

that the Pacific with its small, sensitive ecosystems is more vulnerable than most to develop^{ment}/impacts and to the depredations of introduced species.

This is not to play down the contribution made by international agencies in the South Pacific, by the South Pacific Commission or through bilateral aid and technical co-operation as well as by IUCN and WWF; but the time is surely ripe for the world conservation community to be sensitive to the particular needs of the South Pacific as they may be enunciated by the regional agencies and by the South Pacific nations themselves.

South Pacific nations recognise the role of parks and reserves. This is evident from the initiatives already taken and is borne out by this extract from a leaflet outlining the purposes of national parks and reserves in the Kingdom of Tonga:

"Conservation

It has been proven that if certain areas are protected from fishing and shell collecting, the areas outside of the reserve will produce more shell fish and fish in greater abundance. If the fish, clams and other marine life are allowed to grow to maximum size, they will reproduce and their young will restock adjacent areas.

"Recreation

The areas were chosen because of their potential as picnic and recreation areas for visitors and locals alike. All have excellent snorkeling and in just a few minutes, one can see a dazzling assortment of colourful reef fishes, shells, corals and other marine organisms.

'Education

The parks and reserves are used by Tongan students for field trips to supplement their science curriculum.

"Scientific Research

The reserves can act as areas where scientists can study marine biology. Tonga's fisheries department has already tagged some giant clams in the reserves so their growth can be measured."

It is not the purpose of this topic review paper to record the initiatives taken in the South Pacific as this has been undertaken in a typically thorough manner by Dr Arthur L Dahl, in Technical Paper No 109 entitled "Regional Ecosystems Survey of the South Pacific Area" prepared in co-operation between the SPC and IUCN. It records too those international initiatives which have been taken, notably through South Pacific Conferences on National Parks and Reserves in Wellington 1975 and Sydney 1979, Regional Symposia on Conservation of Nature in Noumea 1971 and Apia 1976 and the Plenipotentiary Meeting which concluded a Convention on Conservation of Nature in the South Pacific which is now awaiting ratification.

CONVENTION ON CONSERVATION OF NATURE IN THE SOUTH PACIFIC

This Convention stems from the principles set out in the Declaration adopted by the United Nations Conference on the Human Environment at Stockholm in June 1972. It recognises the importance of natural resources of the South Pacific "from a nutritional, scientific, educational, cultural and aesthetic point of view" as well as "the special importance in the South Pacific of indigenous customs and traditional cultural practices and the need to give due consideration to such matters"^{and} urges "action for the conservation, utilisation and development of those resources through careful planning and management for the benefit of present and future generations."

The Convention sees an important role for national parks and reserves being to provide for each contracting party to "encourage the creation of protected areas which together with existing protected areas will safeguard representative samples of natural ecosystems occurring therein (particular attention being given to endangered species), as well as superlative scenery, striking geological formations, and regions and objects of aesthetic interest or historic, cultural or scientific value."

CONSERVATION IN THE SOUTH PACIFIC

The diversity of the needs and challenges for conservation of nature and the establishment of parks and reserves in the South Pacific is possibly greater than in any other region of the world. The generally small land areas and human populations in relation to the vast expanse of the South Pacific creates its own set of needs and challenges, as does the vulnerability of small island ecosystems.

Even where the land masses are larger there is the limited area of Government-owned land - the usual source in much of the world of the resource from which to establish national parks and reserves. Then there is the need for knowledge about protection needs and priorities and the fact that it seems likely that the results of much of the scientific research already undertaken are better recorded in London, Paris, Canberra and Wellington than in the South Pacific nations.

But the potential for progress is considerable and there are encouraging prospects.

SOUTH PACIFIC CONSERVATION TRADITION

First and foremost of the positive aspects is that, long before much of the world recognised the need for conservation of nature, the South Pacific had its own tradition of conservation. At the First South Pacific Conference on National Parks and Reserves in 1975, a paper on the subject by the Hon Young Vivian, then Minister of Agriculture for Niue, said that this tradition showed itself "in many forms and inextricably woven in the socio-religious practices of people of the South Pacific, thus indicating a deep cultural need and value". He pointed out ^{for example} / the conservation effect of tapu. "If a forest area such as Huvalu on Niue is declared tapu, it becomes a shelter for the fauna and a source of regeneration and spread of the flora to other parts of an island, which perhaps may have been depredated by man, noxious animals or natural phenomena such as hurricanes or tidal waves".

With such a background of conservation and with the historic dependence of societies on natural resources to provide a sustained yield from those resources, the basis to carry through these traditions and practices into conservation education and law would seem to be a natural evolution from traditional societies to modern life.

CUSTOMARY LAND OWNERSHIP

Secondly, what is usually seen as the problem of customary ownership of land may provide the opportunity to develop a technique of protection that meets the aim of nature conservation in a manner compatible with the desire of those with a traditional link with the land to retain that link. At the Second South Pacific Conference on National Parks and Reserves in 1979, the Hon Pato Kakarya as Minister for Environment and Conservation, Papua New Guinea, explained that the national park system of his country did not require outright purchase of land from customary

owners. He said that the National Parks Board had other provisions such as special leases which give customary owners opportunity to understand and comment on the application of the concept to their land and give the National Parks Board the opportunity to prove to the land owners the relevance of conservation areas especially "when these people of the rural sectors are a part of the environment directly and could see the effects of other land use operations around them." He went on to say that "the anticipated advantages of the lease system against outright purchase were that the customary owners retained the ownership of the land and that payment for the use of the land would continue for the length of the lease and not be paid over in a lump sum, which would probably not benefit the future generations at all." The Government would, in its turn, bind itself to use the land only for national park or reserve purposes and would sympathetically consider the retention by the customary owners of traditional practices not incompatible with the concept of national parks and reserves.

This approach is certainly different from the normal concept of total Government ownership of national park land but there is a strong case for the evolution of approaches to national parks and reserves which reflect the particular situations of particular regions. England, for example, has no national parks in the usually accepted definition of the term but she has achieved an effective degree of conservation through controlling uses of land in private ownership in areas of outstanding natural beauty or of great scientific interest and has her own concept of national parks and nature reserves.

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Too often, the tendency of much of the world is to expect others to fit their familiar mould, ignoring the differing situations and needs and this applies particularly to the traditional practices referred to by the Minister from Papua New Guinea. In this respect, Dr Ray Dasmann, formerly Senior Ecologist with IUCN was quoted by Mr Kakarya as saying:

"Few anywhere would argue with the concept of national parks, but many would argue with the way the concept has been applied too often at the cost of the displacement of traditional cultures and nearly always with insufficient consideration for the practices and policies affecting the land outside the park".

** I suggest there is scope for similar innovative thinking in the establishment and management of parks and reserves in the South Pacific, where particular situations, patterns of land ownership and cultural values which are not typical of other regions of the world call for solutions which meet those local situations.

OPPORTUNITY

A third reason to be positive about the challenges of the future of nature conservation in the South Pacific is that there are still uninhabited/^{and}largely unmodified islands and marine ecosystems which can be given protection as representative samples of natural systems. The time to give this protection is before these areas are threatened with development pressures.

EDUCATION

Fourthly, there is the need for education of the resident populations and of the world at large about the conservation problems and opportunities of the South Pacific. With resident populations there is a need to relate conservation needs to traditional practices and encourage a revived understanding of the interdependence of humanity and nature. In the world scene, there is a need for a South Pacific initiative to the world conservation organisations for support in the collection of research information, for research support to fill gaps in knowledge and above all for practical help in setting up protected area systems and providing for their effective management. The response of the international community to such seemingly impossible tasks as saving the tiger in India demonstrates that, if the need is made known and the areas of help are identified, the resources will be forthcoming. But the initiative must come from the nations of the South Pacific themselves; it should not be imposed from the outside, just as solutions used in the outside world should not automatically be adopted in the South Pacific.

A PACIFIC WAY

In so many areas of life there is a South Pacific way. ^{**} The challenge in nature conservation is to find the South Pacific way and marshal resources to establish a representative system of parks and reserves in the interests of the nations of the South Pacific and their people.

** There is a clear need in the South Pacific - as in the rest of the world - to recognise the role of parks and reserves as basic elements in the field of land use. Resources committed to parks and reserves are not backed up but form a vital part of essential life - support systems while providing a focus for national and cultural identity and for recreation and inspiration.

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