
# Managing Protected Areas in the South Pacific

## A Training Manual

# MANAGING PROTECTED AREAS
# IN THE SOUTH PACIFIC

## A TRAINING MANUAL

Compiled by

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For the

South Pacific Regional Environmental Programme (SPREP)
South Pacific Commission, Noumea, New Caledonia

and the

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International Union for Conservation of Nature and Natural Resources

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**Managing Protected Areas in the South Pacific Region - 1987**

## FOREWORD

During the past decade or so, considerable effort has been made both at the national and regional level to promote public awareness to the importance and values of protected areas such as national parks and nature reserves. Yet, there has not been a significant increase in the number of protected areas established within the countries of the South Pacific region during this same period of time.

There have been a number of reasons which, individually or collectively, hampered the development efforts of the countries of the region in the past. Most of these are also causing considerable frustrations to current attempts by national governments as well as regional organisations such as the South Pacific Regional Environment Programme (SPREP). A very common and important one of these is, of course, the lack of trained personnel in protected area management thoughout the region. This is compounded by the fact that except in Australia and New Zealand, there is no institution in the South Pacific region offering training in protected area management for Pacific people.

Park managers and administrators are not merely "keepers and protectors" of protected areas; they are also "agents and salesmen" for these areas. They have to virtually "sell" these areas through publicity and information dissemination in order to gain public support and appreciation for the values and services protected areas can offer. Managers would need to be alert to the needs of the users of protected areas and to have a basic understanding of the principles of protected area planning and management to enable them to make well-informed decisions.

This training manual has been designed especially for park managers in the South Pacific region with the important objective of providing them with the basic knowledge and understanding that is fundamental to the successful planning and management of protected areas.

The SPREP is grateful for the enormous amount of work Mr Rex Mossman has given in putting this manual together. I trust that protected area managers and administrators in the region will find it a useful contribution to the advancement of their knowledge and training and subsequently to the successful management of existing parks and reserves as well as those to be established in the future.

Iosefatu Reti,
Co-ordinator,
South Pacific Regional
Environment Programme (SPREP)

# MANAGING PROTECTED AREAS

# IN THE SOUTH PACIFIC

## A Training Manual

This manual is based on the Training Manual produced for the East African Region by J.W. Thorsell, IUCN, 1984. It has been restructured, altered, added to and parts deleted to provide a basic framework for training staff in the South Pacific Region.

The manual is intended to provide the direction and the material required for the development of a flexible training programme to meet regional needs and to produce the well trained staff required to achieve progress in protected area management.

It has been compiled in modular form so that training can be tailored to meet the specific needs of an individual or a country. A complete training programme can therefore be built up in parts using the manual as a standardised base, even through a variety of training agencies.

Rex Mossman
Chief Ranger
Hauraki Gulf Maritime Park

February 1987

Department of Conservation
Auckland, New Zealand.

## Using the Manual

This manual is intended primarily for use by instructors.

The "Management of Protected Areas in the South Pacific" is divided into four areas: The Resource, The Visitor, The Facilities and The Management.

Within each of these headings are a series of Lesson Plans, these detail each subject.

Each lesson plan provides the objective for the lesson and a format for presentation. This is intended to provide an outline for the subject allowing sufficient flexibility for instructors to add, adapt, embellish and revise as requested to suit their own particular needs, experiences and the local conditions.

For many areas hand-out notes are included which provide more information and explanation of the subject.

Suggestions for activities, assignments and reference material is also given in some cases.

Instructors are recommended to refer to the "Training Manual for Rural Environmental Management" prepared by Arthur Dahl for the South Pacific Regional Environmental Programme as resource material.

Rex Mossman

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# A TRAINING MANUAL

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## CONTENTS

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**Public Relations**



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If the Earth
were only a few feet in
diameter, floating a few feet above
a field somewhere, people would come
from everywhere to marvel at it. People would
walk around it, marvelling at its big pools of water,
its little pools and the water flowing between the pools.
People would marvel at the bumps on it, and the holes in it,
and they would marvel at the very thin layer of gas surrounding
it and the water suspended in the gas. The people would
marvel at all the creatures walking around the surface of the ball,
and at the creatures in the water. The people would declare it
as sacred because it was the only one, and they would protect
it so that it would not be hurt. The ball would be the
greatest wonder known, and people would come to
pray to it, to be healed, to gain knowledge, to know
beauty and to wonder how it could be. People
would love it, and defend it with their lives
because they would somehow know that
their lives, their own roundness, could
be nothing without it. If the
Earth were only a few
feet in diameter.

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# LESSON PLAN: RESOURCE 1

## Conservation : An Introduction

**Objectives :**

To consider and understand the meaning of conservation.

**Presentation :**

1. This is a reality from which there is no escape.....

   In general, the characteristics of all populations are remarkably similar. If living conditions are favourable, a population will increase. Under artificial conditions where competition is removed and all essential needs can be continually provided, a population will increase as quickly as the individuals can reproduce themselves.

   Under natural conditions, however, populations do not increase unchecked. The environment, on which all living communities are dependent, ultimately imposes limits on population growth. If the essential demands of a particular population cannot be met, its growth will be halted. When a population exhausts the capacity of the environment to supply its needs, a drastic reduction in numbers will occur.

   from 'Consider the Process of Living'

2. Human aspirations and survival are closely bound to the land and all its resources. Careful development of those resources can lead to economic growth, improved living standards, employment opportunities and increased well being in the broadest sense. Depletion, destruction and over-exploitation undermine the very means by which people can survive and flourish. Sustainable development is essential.

3. Conservation is the management of human use of the biosphere to yield the greatest sustainable benefits to present generations while maintaining 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. It is concerned with both living and non-living resources.

4, Development is the modification of the biosphere (the thin covering of the planet that contains and sustains life) and the application of human, financial, living and non-living resources to satisfy human needs and improve the quality of human life.

For development to be sustainable it must take account of social and ecological factors as well as economic ones; of the living and non-living resource base; and of the long term as well as short term advantages and disadvantages of alternative actions.

5. Sustainable development will be achieved when conservation is fully integrated with development and the two are no longer viewed as mutually exclusive or opposite ends of a spectrum. Development based on conservation objectives uses resources in a sustainable manner, ensuring the long term viability and growth of societies.

6. Note: In the past 'conservation' has been viewed by many as a luxury. It is becoming more and more apparent to most people now that it is a very important and integral part of everyday life.

7. Note: The particularly fragile nature of the islands of the Pacific region, the very limited land resources and the very real need for conservation and sustainable development.

Handout :

Activities : Select a number of local development projects, inspect and discuss how they rate in terms of conservation values.

Assignments : Choose an appropriate project, and report on its long term viability in terms of the resource and the people.

References :

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## LESSON PLAN: RESOURCE 2

### The Value of Protected Areas

**Objectives :**

To show the range of benefits of national parks and protected areas and to demonstrate that they are not obtained spontaneously, but require conscious management.

**Presentation :**

Summary of values at protected areas.

1. To maintain watersheds and control erosion and sedimentation, protecting water supplies for users downstream.

2. To support rural development and rational use of marginal lands. National parks can promote rural development - local employment, improved communications, education and community services.

3. To protect scenic beauty.

4. To facilitate education, research, and monitoring, to improve our understanding of the environment.

5. To facilitate recreation and tourism.

6. To maintain human cultural heritage by protecting man-made structures and sites.

7. To maintain representative samples of major biomes in perpetuity.

   - Explain "biome" : a collection of similar ecosystems in a region.

   - Explain "perpetuity" : long-term viability, which depends on the ecological integrity of an area and on its size, boundaries, external and internal influences, political commitment and management.

8. To maintain ecological diversity and environmental regulation within each biome, of which there are many types.

9. To maintain genetic resources. The 10 billion species on earth evolved over 3 billion years, but 12 become extinct every day. Wild species have many uses, including undiscovered ones. National parks help ensure the survival of genetic material.

Concluding notes : All protected areas cannot offer all of these benefits. No area can offer any unless it is consciously managed to do so. This requires training, funds, equipment, organisation and motivation.

Handout :
Activities :
Assignments :
References :

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# LESSON PLAN: RESOURCE 3

## Categories of Protected Areas

**Objectives :**

To introduce a range of classifications and the roles of the variety of conservation areas in a system.

**Presentation :**

1. Note that the range of objectives for conservation in any country requires more management categories than just that of national parks.

2. Note problems of terminology varying among countries.

3. IUCN has defined 10 categories of protected areas.

4. These categories provide a framework which allows:

   - the basis for each country to design its own conservation system.
   - each area to be classified according to the objectives it is being managed for.
   - the ability to store, recall, assemble and analyse information with a common base.
   - information to be more readily used by various interests, e.g. scientific, community, tourism and conservation agencies.
   - IUCN to provide assistance and support on a more consistent basis.
   - a clearly defined basis for incorporating conservation into development.

5. Note the need for a country to determine the best option to achieve the desired level of protection required, taking into account the local cultural and traditional values.

Handout : Categories of Protected Areas IUCN 1982

Activites :

Assignment :

References :

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**Handout for Lesson: Resource 3**

## Categories of Protected Areas

To accomplish all its conservation objectives, a nation needs various categories for conservation area management. Although terminology may differ, each nation should classify its conservation areas according to the objectives for which they are managed. The following outlines the general IUCN categories.

1. Scientific Reserve or Strict Nature Reserve

   - Intended to protect representative samples of the natural environment, primarily for scientific study, monitoring and education.

   - Public access generally not permitted.

2. National Park

   - A relatively large uninhabited area containing outstanding features of national or international significance.

   - Consumptive use of natural resources not permitted.

   - Protected by the highest authority in the country; legislative action usually required to change boundaries.

   - Visitors allowed for tourism, education, recreation and research.

3. Natural Monument, Natural Landmark

   - A relatively small area protecting a specific feature such as a spectacular waterfall, nesting site, critical habitat, cave, or geological feature.

   - Locally unique area for education, research and recreation.

4. Nature Conservation Reserve or Managed Nature Reserve or Wildlife Sanctuary

   - A natural area of national significance but not usually possessing exceptional or unique features.

   - Manipulative management permitted to ensure survival of habitat or species.

   - Some controlled consumptive uses allowed, such as livestock grazing, forestry, hunting and harvesting of surplus species.

- Permanent settlement not allowed.

- Facilities for visitor use usually not extensively developed.

- Managed by central government or regional body.

5. Protected Landscape or Seascape

- Established to maintain a distinctive land use pattern that integrates natural and cultural values.

- Traditional land use practices by local people allowed on a sustainable basis.

- Includes both natural and semi-natural zones with various co-ordinated resource uses, from preservation to controlled harvesting.

- Provides for public recreation and tourism.

6. Resource Reserve

- Protects areas and resources until full evaluation and utilisation assessed.

- Usually comprises extensive, isolated and uninhabitated areas.

7. Natural Biotic Area or Anthropological Reserve

- Protects a natural area in which man is a component and living in harmony with.

- Managed to maintain a habitat for traditional societies so as to provide for their continuance within their own cultural entity.

8. Multiple Use Management Area or Managed Resource Area

- Provides for the sustained production of natural products and recreation.

- Conservation of nature aimed at support of economic and social objectives.

9. Biosphere Reserve

- Part of a network of reserves throughout the world conserving representative natural areas.

- Generally large, conserves genetic diversity and integrity of communities and species.

- Provides for research, education and training.

- Value as a benchmark.

10. World Heritage Site (Natural)

- The International Convention Concerning the Protection of the World Cultural and Natural Heritage provides for the designation of areas of 'outstanding universal value' as World Heritage Sites.

- Protects natural features and provides information, research and monitoring.

Reference : IUCN, 1982, Categories, Objectives, and Criteria for Protected Areas (Gland Switzerland)

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## LESSON PLAN: RESOURCE 4

### Establishing Protected Areas

**Objectives :**

To consider strategies for establishing protected areas.

**Presentation :**

1. The creation of a national or provincial park is a political act, not an act of grace. To achieve an objective, one must understand the decision-making process as it exists. One must know where the centres of power are and how the levers of power work.

2. Do not minimise the influence that a single individual or a small group can exert. The history of conservation is peopled with concerned individuals who, by their knowledge and their passion, fought successfully for the preservation of a particular site or radically altered attitudes toward conservation.

3. Equally do not neglect organisation and the building of institutional alliances. Support may be found in strange places, for the motives for conservation are almost limitless. Though foreign conservationists may cheer on the effort, the real initiative and motivation must come from within the country and engage the talents and energies of those closest to the scene. Organised support at home will encourage assistance from abroad, if it is wanted.

4. Do not delay in extending whatever measure of protection is possible to areas whose future may not be finally determined; once exploited land will be difficult or impossible to regain for conservation. On the other hand, when establishing a national park or equivalent reserve, do not undertake too much too fast. It may be better to have one or two areas properly protected and managed than to have ten designated areas without the will or the resources to protect them. Initial success will encourage a growing park system, initial failure may kill it.

5. Since it is generally easier to establish a national park or reserve than to protect and manage it, try to see that the legislation creating the park also provides for the necessary material and human resources, especially for the training of competent managers. Ideally, the legislation should include a method of automatic funding for support of a national park system.

6. Take advantage of the popular interest in cultural and historic sites and the instinctive concern many people feel for endangered species and other wildlife. Try to develop a sense of national pride. Where these factors are involved, the task of land conservation will be much easier. Whatever the circumstances arguments in favour of protecting a particular area must be carefully marshalled on the basis of direct knowledge and then developed to meet the interests of particular audiences. Generalised arguments for a generalised public will rarely be sufficient.

7. Respect the potentialities of the small provincial or urban park. Besides adding immeasurably to the quality of life of a city or region it may strike an essential spark of wonder in the next generation of conservationists. The most staunchly protected areas in the world may be the major parks of major cities: they represent a valuable real estate and the most precious amentities.

8. Recognise the significance of rapidly expanding populations. Countries that are making insufficient effort to bring down high growth rates have very little chance of creating an adequate system of protected areas or of preserving what they have.

9. Don't let success in establishing national parks become so much a cause of statisfaction that the conservation of other resources is neglected. The preservation of natural areas may be only the most personally fulfilling of many measures needed for environmental protection.

10. Think of the coin of nature's realm as reading on one side; "Conservation can serve the aims of economic development." The other side reads "Sustained development can occur only within the constraints of natural systems."

11. Try and involve local communities in the establishment and management of the areas.

12. Emphasise public education programmes to explain the rationale for and benefits of protected areas.

13. Note: These points will need to be adopted to suit the particular needs and traditions of each area.

Handout : 'Legislation in the South Pacific' from a paper by Peter Eaton, University of Papua New Guinea. SPREP, Topic Review No 17, January 1985.

Activities :

Assignments : Select a suitable situation and ask students to outline the steps they would take in trying to establish it as a new protected area.

References :

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**Handout for Lesson : Resource 4**

## Legislation in the South Pacific

From : Peter Eaton
University of Papua New Guinea
SPREP. Topic Review No. 7
January 1985

Only a few South Pacific countries have specific national parks legislation. In many cases the powers to establish reserves are linked to forestry and wildlife laws.

In **Papua New Guinea** there are three statutes: the National Parks, Conservation Areas and Fauna (Protection and Control) Acts. The National Parks Act provides for the conservation of sites and areas of special scientific, scenic or historical purposes. It contains powers to reserve government land, lease and accept gifts of land. Seven areas have been officially declared and gazetted, but these are small in area, and only two are over a thousand hectares.

The Conservation Areas Act has similar objectives but attempts to be more flexible in that the areas can be established on public, private or customary land. It contains provisions for local representation on a management committee. It requires a management plan for each area; land use changes can then only be in accordance with the plan or with ministerial approval. This statute has not yet been implemented and there are no conservation areas at present.

Under the Fauna (Protection and Control) Act sanctuaries, protected areas and wildlife management areas can be established. For the management areas there are local committees responsible for drawing up and enforcing the rules. These areas can be established on customary land. There are at present eleven wildlife management areas, two sanctuaries and one protected area.

The **Solomon Islands** has a National Parks Act which contains provisions for the declaration of national parks and the control of land use within them. There is one park, the Queen Elizabeth National Park, which is of limited conservation value; part of it has been returned to customary owners and much of the rest has been affected by squatters' gardening activities. Under the Forest and Timber Act, vegetation can be protected in controlled forest areas and there is one such reserve on Kolombara Island. In addition local authorities may develop sanctuaries and one has been established by Santa Isabel provincial government in the Arnavon Islands, an important turtle-breeding area.

**Vanuatu** has Forest Regulations which provide authority to declare forest reserves. There are no national parks although wrecks around the coast, such as the "President Coolidge" sunk during the Second World War, are protected.

In **Fiji** the Forests Act provides for reserved forest areas and nature reserves. At present there are twenty-four forest reserves and nine nature reserves. The National Trust Act gives the National Trust powers to acquire land for conservation purposes; the Trust has been involved in the establishment of a crested iguana sanctuary and one reserve.

**New Caledonia** has a number of decrees under which parks and reserves have been established. At present there are two territorial parks, two marine reserves, one nature reserve and two fauna and flora reserves. These have all been established on public land.

**Western Samoa** has a National Parks and Reserves Act which provides for the establishment of parks and reserves on public land. There is at present one full national park and five reserves of different types. The Forests Act also enables the protection of forest and water catchment areas.

**Tonga** has a Parks and Reserves Act and five marine reserves have been gazetted under this statute. Two areas of lagoons are also protected in that only subsistence fishing is allowed and the discharge of effluents and destruction of mangroves is forbidden. There is also a Preservation of Archaeological Interest Act and several historical sites are protected.

The **Cook Islands** have a comprehensive Conservation Act. Under it any land, lagoon, reef, island or part of the territorial seas and the seabed can be declared a national park, reserve or world park. There are not yet any national parks in the Cook Islands; a world marine park was proposed for Manuae Atoll but it was not established, partly because of objections from the land-owners. Three fishing reserves have been established under the Trochus Act; diving and fishing for trochus shells is prohibited in these areas without a licence.

The other small Polynesian territories of **Tuvalu, Tokelau, Wallis** and **Futuna** and **Niue** have no protected area legislation or reserves. In **French Polynesia** the Forestry Act contains provisions for the protection of vegetation and wildlife which enable nature reserves to be established. Five reserves have been listed by Dahl (1980).

**American Samoa** has a Parks and Recreation Act and a variety of relevant federal legislation such as the Coastal Zone Management Act. Most of the areas which have been designated parks are for recreational purposes but there is also one national wildlife refuge, Rose Atoll, and a national marine sanctuary is being developed at Fagatele Bay.

American federal legislation also applies to **Guam**. In addition there is Parks and Recreation Enabling Legislation which provides for natural preserves, conservation reserves, territorial and community parks, recreational facilities, and historical and prehistoric sites. Altogether there are 110 sites listed in the Guam territorial system, although most of them are small recreational sites and of limited conservation value. There is also a large area of territorial seashore park.

The former American trust territories also come under federal jurisdiction but are now developing their own legislation. Under Section 2, Article XIV of the Constitution of the **Northern Marina Islands**, two islands, Sariguan and Maug, are to be "maintained as uninhabited places and used only for preservation of bird, fish, wildlife and plant species". **Palau** has the Ngerukewid Islands Wildlife Reserve. There are two bird sanctuaries, Bikar and Pokak, in the **Marshall Islands**.

Elsewhere in Micronesia, **Kiribati** has a Wildlife Protection Ordinance under which sanctuaries for birds and sea turtles can be established.

There is also a Prohibited Areas Ordinance which could be used to restrict access for conservation reasons. Seven sanctuaries and four prohibited areas for birds and turtles have been established.

At present there are no sites in the South Pacific Commission region which are protected under the World Heritage Convention, although several areas have been identified as being suitable for inclusion. There is one international biosphere reserve in French Polynesia.

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# LESSON PLAN: RESOURCE 5

## Resource Inventories

**Objectives :**

To outline the biophysical and sociocultural resources that may be present in a protected area and to illustrate in detail a resource inventory.

**Presentation :**

1. Note that a resource inventory is a comprehensive survey of protected area resources for purposes of management, planning, and new area proposals.

2. Note categories of resources; biophysical and social and cultural.

3. Review a resource inventory that has been made for a protected area.

   - Natural: geology (active processes, minerals, fossils); topography (landforms); watersheds and drainage (hydrology, water quality); weather and climate (temperature, precipitation, wind, etc); soils (fragility or susceptibility of erosion); vegetation (life zones, endemics); fauna (endemics, endangered species, seasonal movements); ecosystem dynamics (role of fire, vegetation succession); critical areas.

   - Sociocultural: paleontology, archeology, human history, contemporary features, land use (including tourism), infra-structure.

4. Note the sequence of preparing a resource inventory, the sources of information, and the necessity for all staff to understand all basic resources in his areas. Stress the importance of good base maps.

5. Note inventory methods (literature reviews, file searches, maps, aerial photographs, interviews with knowledgeable people, data collection, measurement).

6. Note how you record the information for easy retrieval and later use (graphs, maps, etc).

Handout :

Activities : Review resource inventory maps of various protected areas.

View a slide presentation illustrating each of the resources in a typical protected area familiar to the instructor.

Assignment : Form student teams to prepare resource inventories for selected areas.

References :

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# LESSON PLAN: VISITOR 1

## The Human Factor
## (Managing Visitor Use of Protected Areas)

**Objectives :**

To introduce the management concerns associated with people in and around protected areas.

**Presentation :**

1. It is a challenge to manage protected areas for people as well. Remember that the benefits of protected areas are for people, and their benefits must be evident to people.

2. To 'manage' people you must first understand them.

   - discuss Maslows hierarchy and the 'Tragedy of the Commons' and the implications for protected area management.

3. A number of topics relate to the human aspects of protected area management; Consider the implications of each;

   (a) social and cultural aspects of conservation: (includes traditional uses and practices)

   (b) roles and impacts of tourism and recreation;

   (c) preferences, attitudes, characteristics of park users; (why they come, where from, their background (ie urban/rural) ).

   (d) behaviour, vandalism, public safety; (location of park, quality and construction of facilities)

   (e) local people and the public interest; (their relationships and activities)

   (f) developing support for protected areas through public relations and extension programmes;

   (g) education and interpretation services;

   (h) carrying capacity.

4. Consideration of local populations; land use conflicts, cultivating, hunting, gathering; alternatives, employment either direct or indirectly; benefits, negative aspects, more people, higher prices!

Handouts : 1) Maslows hierarchy, 2) Tragedy of the Commons, 3) Resolving conflicts between traditional practices and park management.

Activities : Field inspection of an area which illustrates problems of visitor use and discuss options for dealing with the public.

Assignments : Ask students to identify the people-related problems in their areas, select one and discuss its implications and solutions.

References :

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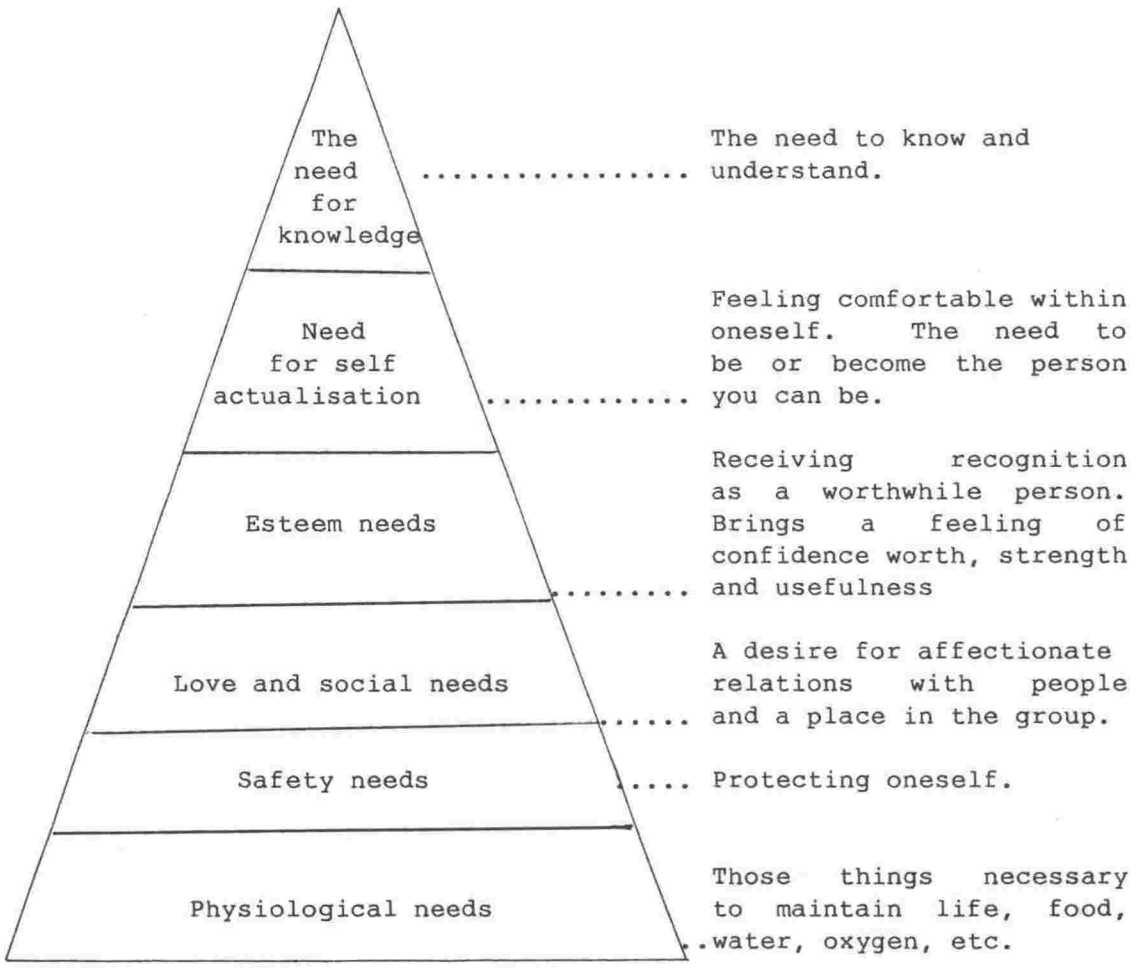
**Handout for Lesson: Visitor 1**

**Maslows Hierarchy - A hierarchy of human needs**

This theory relates to the belief that people are motivated by trying to fill the need between what they have and what they think they should have.

People have needs, and these range from a low level to a high level. If low level needs are not satisfied high level ones are not important, nor are they sought after.

This is called a prepotency hierarchy that is, a person must satisfy a lower need before rising to the next one.



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**Handout for Lesson: Visitor 1**

## TRAGEDY OF THE COMMONS

(extracts from a paper by Garrett Hardin, Science Vol. 162, pp1243-1248(1968)

The Tragedy of the Commons develops in this way. Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is the day when the long desired goal of social stability becomes a reality. At this point the inherent logic of the commons remorselessly generates tragedy.

As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly more or less consciously, he asks, "What is the utility to me of adding one more animal to my herd?" This utility has one negative and one positive component.

1) The position component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly + 1.

2) The negative component is a functional of the additional overgrazing created by one more animal. Since, however, the effects of over grazing are shared by all the herdsman, the negative utility for any particular decision-making herdsman is only a fraction of -1.

Adding together the component partial utilities, the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. And another; and another....But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit - in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all.

Some would say that this is a platitude. Would that it were ! In a sense, it was learned thousands of years ago, but natural selection favours the forces of psychological denial. The individual benefits as an individual from his ability to deny the truth even though society as a whole, of which he is a part, suffers. Education can counteract the natural tendency to do the wrong thing, but the inexorable succession of generations requires that the basis for this knowledge be constantly refreshed.

Likewise, the oceans of the world continue to suffer from the survival of the philosophy of the commons. Maritime nations still respond automatically to the principle of the "freedom on the seas". Professing to believe in the "inexhaustible resources of the oceans", they bring species after species of fish and whales closer to extinction.

The National Parks present another instance of the working out of the tragedy of the commons. At present, they are open to all, without limit. The parks themselves are limited in extent - whereas population seems to grow without limit. The values that visitors seek in the parks are steadily eroded. Plainly, we must soon cease to treat the parks as commons or they will be of no value to anyone.

**Pollution**

In a reverse way, the tragedy of the commons reappears in problems of pollution. Here it is not a question of taking something out of the commons, but of putting something in - sewage, or chemical, radioactive, and heat wastes into water; noxious and dangerous fumes into the air; and distracting and unpleasant advertising signs into the line of sight. The calculations of utility are much the same as before. The rational man finds that his share of the cost of the wastes he discharges into the common is less than the cost of purifying the wastes before releasing them. Since this is true for everyone, we are locked into a system of "fouling our own nest", so long as we behave only as independent, rational, free-enterprisers.

The tragedy of the commons as a food basket is averted by private property, or something formally like it. But the air and waters surrounding us cannot readily be fenced, and so the tragedy of the commons as a cesspool must be prevented by different means, by coercive laws or taxing devices that make it cheaper for the polluter to treat his pollutants than to discharge them untreated. We have not progressed as far with the solution of this problem as we have with the first. Indeed, our particular concept of private property, which deters us from exhausting the positive resources of the earth, favours pollution. The owner of a factory on the bank of a stream - whose property extends to the middle of the stream - often has difficulty seeing why it is not his natural right to muddy the waters flowing past his door. The law, always behind the times, requires elaborate stitching and fitting to adapt it to this newly perceived aspect of the commons.

The pollution problem is a consequence of population. It did not much matter how a lonely American frontiersman disposed of his waste. "Flowing water purifies every 10 miles", my grandfather used to say, and the myth was near enough to the truth when he was a boy, for there were not too many people. But as population became denser, the natural chemical and biological recycling processes over-loaded, calling for a redefinition of property rights.

**How to Legislate Temperance ?**

Analysis of the pollution problem as a function of population density uncovers a not generally recognized principle of morality, namely: the morality of an act is a function of the state of the system at the time it is performed. Using the commons as a cesspool does not harm the general public under frontier conditions, because there is no public; the same behaviour in a metropolis is unbearable.

**Managing Protected Areas in the South Pacific Region - 1987**

**Handout for Lesson : Visitor 1**

# Resolving conflicts between traditional practices and park management

*Iosefatu Reti*

*Like several other concepts of land uses, national parks and reserves are faced with a series of conflicting views and practices. The extent of these conflicts may vary from country to country according to the nature of their land tenure systems, the effectiveness of legislation designed to regulate, manage and control such conflicts and finally the degree of public acceptance accorded the concept through national educational and promotional activities. This paper sets out to discuss some of the common conflicts between national parks management and traditional practices and proposes some ways through which these might be effectively resolved.*

The national parks concept, which emerged just over a century ago, has spread widely around the world but perhaps at a much slower pace in the South Pacific region. Naturally, such an international concept cannot be met in full by all countries and authorities involved in conservation promotion and some means of accommodating the objectives have therefore been instigated.

Many have pointed out that the concept was developed in the "western" world to meet the needs of those countries and societies. But it is still desirable that individual countries have the flexibility for deciding for themselves a design by which their natural and cultural heritages can be best protected for the benefit and enjoyment of their people.

### Concept of national park

A national park was defined and adopted by the General Assembly of IUCN in New Delhi in 1969 as follows:

"A National Park is a relatively large area, (1) where one or several ecosystems are not materially altered by human exploitation and occupation, where plant and animal species, geomorphological sites and habitats are of special scientific, educative and recreative interest or which contains a natural landscape of great beauty and; (2) where the highest competent authority of the country has taken steps to prevent, or to eliminate as soon as possible, exploitation or occupation in the whole area and to enforce effectively the respect of ecological, geomorphological or aesthetic features which have led to its establishment; and (3) where visitors are allowed to enter under special conditions, for inspirational, educative, cultural and recreative purposes" . . .

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Obviously, this definition is an attempt to arrive at a universal standard for the setting up of national parks world-wide. However, it can be argued that the rigidity of the very high standards which are implicit in it could be counter-productive and serve to discourage efforts to set aside other areas which might have very important features worth protecting. A good example can be found in our Pacific island communities where it might be impossible to reconcile our customary land ownership system involving continued use of land in traditional ways with the requirements of the definition. Similarly, the "relatively large area" criterion will immediately require justification based on values which unfortunately are seen in the concept of dollars and cents. These requirements might therefore prevent countries anxious to implement nature conservation programmes from doing so either because: (1) they could not justify in financial terms setting aside large areas for national parks, or; (2) the areas are not large enough.

### Management authority

The national park concept is relatively new and is therefore little understood especially in the South Pacific countries. Where the concept has already been introduced, several conflicts with the traditional use of land have been encountered, perhaps the most important of these lying in the character of land ownership. In Western Samoa and many other countries of the Pacific, most of the land area is held under customary ownership with the chiefs (matai) having the sole right and authority for control and use of the land. Thus the preservation of these areas for national parks or for any other use without prior agreement by these people can be seen as imposition on their rights and authority and could result in unending conflicts and unpleasant differences which could eventually lead to violent and disruptive events.

The enforcement of conservation steps by the "highest competent authority" in the country on village land could cause friction with traditional rules and by-laws and continuing disputes can therefore be expected. Many land tenure systems in the Pacific are complex and are embedded in the very heart of culture and tradition.

In some countries, including Western Samoa, the land grab of the early European settlement is still fresh in the peoples' minds, thus making them very very cautious and reluctant to support long-term government projects affecting their land. National parks as a new concept requiring large land areas will be immediately looked at with suspicion especially if they involve village lands or those lands being disputed by villages. Negotiations will take an enormous amount of time and patience which might not even be enough to secure the success of the project.

Forests have often been considered a constraint to farming and forest produce regarded a free commodity at the peoples disposal. Hence, the protection of forest areas could be looked upon as a means of depriving the people of their traditional rights and access to these commodities. It is, therefore, suggested that in the Pacific island countries, the involvement of the highest authority may not be necessary, and that if it were enforced, could create more problems than it could solve. On the other hand, village authority could generate the interest and support that is desirable to ensure the success of national parks and reserves programmes.

### Traditional use of land

Perhaps the most common "problem" of conservation programmes concerns the traditional use of land. Shifting cultivation by subsistence farmers has been identified as a continuing danger to protected areas and has been outlawed in such areas.

Nevertheless, the peoples' need for food deserves the highest consideration and wherever possible this priority use of land is encouraged. Hence in selecting areas for conservation purposes, this need should always be borne in mind.

In our small island nations in the South Pacific, conserving huge areas may appear to undermine the desire for agricultural development; and the apparent requirement to sacrifice one for the other without compromise appears to be unavoidable. Unfortunately for conservation, it is often the protection of land that is sacrificed in favour of development. Ironically, it is the restrictions implicit in the definitions of national parks which often prevent possible compromises and is, in many cases, the very reason for voting against conservation.

With limited capital, village farmers will continue to rely on traditional methods of clearing forested land (shifting cultivation) for better soil and yields. Hence, protected areas will remain under the threat that at some stage they could lose some of their area to cultivation.

Where parts of national parks have been cultivated and settled, the problem becomes extremely emotional and political, and it is much more difficult, and sometimes even dangerous, to resolve. In some cases, small areas cleared by subsistence farmers inside protected areas might have occurred as a result of inadequate boundary marking, when the farmers might well peacefully withdraw after being made aware of the situation. The fact remains, however, that the damage has been done and the park managers may have to decide on whether or not the case calls for prosecution.

Perhaps the most difficult situation to resolve is where permanent settlement and establishments have been created in protected areas – and this is not uncommon in the Pacific region. Obviously, the indications that such developments are permanent could mean that the situation is beyond an amicable resolution and more drastic measures might have to be enforced. Naturally, this will mean prosecution under law, but one doubts whether this could achieve the best solution, which ought to maintain cooperation with the park managers in future.

### Suggested solutions

Arriving at an amicable solution on land issues is by no means an easy undertaking, and a universal solution in such circumstances would be "wishful thinking". Unpleasant as it might be, there is often no alternative but to resolve each case individually based on the facts surrounding each problem.

The solutions suggested below, therefore, are not an attempt to propose a universal approach to resolving problems that are common to park managers. They represent, in a way, a self analysis of the role of managers.

Everyone belongs to one type of society or another, and park managers are no less members of a society because they became administrators of protected areas. Unfortunately, many have unconsciously considered themselves park managers for eight hours of the day, five days of the week, and a family man or member of society during his off-duty hours.

Understanding the manager's role as a member of a society could go a long way in resolving some of the common problems of park management. For example, it should be much easier for him to solve disputes arising from members of his own society than for a stranger who is not accepted by the society and who does not fully appreciate its needs and traditions.

### The need for a flexible concept

Analysis of the national parks concept has revealed that rigidity of its definition makes it difficult for managers and villagers alike to arrive at a satisfactory compromise for implementing it. It is, therefore, desirable that the possibility exists for national parks to be designed and established without prejudice to the peoples' right and authority over the land. More importantly, the support and cooperation of the people must be ensured in order to guarantee the success of conservation programmes on their land. It could even be envisaged that villages might undertake conservation activities such as national parks as village projects with limited involvement by government or conservation bodies. After all, the villagers, having traditional authority over the land, could decide the success or otherwise of these programmes.

### Extent of the area

Although this may vary from country to country, an area of 1,000 hectares has been widely accepted as the minimum size of a national park. This immediately places small island nations at a disadvantage in view of their limited land areas. It would therefore, be in the interest of the small islands, and of the national parks concept for that matter, to be more flexible in this aspect to permit the protection of valuable resources within the national parks concept.

It is suggested that, when appropriate, individual

countries should have the flexibility to decide for themselves; based on available land areas, the sizes of protected lands, and the need for protected features to be as far as possible representative of existing natural and cultural heritage.

### Government authority versus village management

The exercise of government authority over village lands may create more problems than it can resolve, particularly if such authority would require the village people to desist from traditional practices and ways of life.

When government authority is necessarily exercised over village land, it should first be assured that: (1) funds are available to buy, rent/lease or compensate the people for the land; (2) government can count on village support for the undertaking and protection of the parks; (3) there is adequate security that the area can be protected in perpetuity.

Although some countries may be better off than others, it is believed that most Pacific island countries are faced with considerable difficulties in allocating funds for "non-developmental" projects. Furthermore, village suport for government projects imposed on their land is likely to be, at best, temporary, thus making the long-term security and success of such projects doubtful.

On the other hand, national parks and other conservation projects involving modest capital could be undertaken by village people with technical and professional guidance provided by government. In this approach, the much-needed village support can be counted upon and village authority can be called upon to ensure the implementation of conservation measures by the village people. Furthermore, the people's suspicions about eventually losing their land to government can be eliminated and the long-term protection of the area therefore assured. It is crucial that village support is obtained through a sense of belonging, responsibility and involvement.

### Accommodation of traditional practices

While the most common and widespread threat to national parks and reserved areas is probably encroachment of land clearing and other farming activities, it is also true that the restrictive nature of protected areas is the major cause for the farmers' refusal to support conservation projects. Obviously, some degree of accommodation must therefore be achieved.

We have to admit that it will take many years of education and promotional work before the national park concept is fully accepted and appreciated in the Pacific islands. Meanwhile, encroachment is expanding as a result of increases in population. As long as traditional farming practices continue to be outlawed from protected areas, we have to recognize the fact that protected areas will continue to diminish in size and probably disappear over a period of time.

In the medium term it is therefore desirable that serious consideration be given to ways and means of accommodating certain traditional practices within protected areas. This may call for comprehensive research into land capabilities and potential uses. It might be feasible to set up a "core area" for complete protection, with other areas made available for various forms of controlled land uses based on the capability of that land.

Naturally such an arrangement would require close supervision and strict adherence on the part of the farmers to their permitted activities within the assigned boundaries, and to any conditions relating to them. However, this limitation on the number of people within the protected areas makes the problem easier to handle, and will provide the necessary screen to prevent outsiders from tresspassing into the core zone.

Farming techniques, like other technologies are undergoing rapid changes, and current practices will eventually become outdated. In the likely event of increasing mechanization of farming activities, and the potential danger to protected areas associated with it, the inclusion of a variety of land uses by traditional practices might be considered as being compatible with national parks principles. Although perhaps now regarded as a necessary evil, such an accommodation may prove the long-term solution of those very values the parks were designed to protect, promote and develop.

### Long-term comprehensive education and promotional programmes

One of the biggest questions faced by park managers and administrators is how to get popular support for a concept that is hardly understood and which may require relinquishing hunting rights and access to commodities traditionally available.

Some countries may have practical and effective legislations to facilitate the support and cooperation of the people. Others might have well-established long- and short-term training and educational programmes. However, in small island countries with limited land masses but with high rates of resource depletion, it may be necessary to look at setting up pilot national park areas for demonstration, backed by extensive educational programmes.

Availability of demonstration projects will make it easier to teach the concept and to see the effects of incompatible practices. However, educational and promotional programmes are crucial for stimulating people's interest and gaining national acceptance of the concept.

In small island countries, the concept of national parks cannot be promoted through trial and error. We have to understand right from the start what we need and what we wish to achieve. It is in this context that the need for demonstration areas becomes critical.

The examples already started in Western Samoa appear to be slowly working towards their goals and it is expected that on-going educational programmes will eventually lead to full acceptance and adoption of the concept.

### Conclusion

The "conflicts" between traditional practices and national parks management are perhaps, not unique to the South Pacific island countries, but their smallness has created other problems which are uncommon in other countries. The challenge of how conventional national parks values and attitudes towards their management can be related in an agreeable manner with the fundamental and legitimate interests of landowners is perhaps the biggest issue now faced by park managers and administrators.

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**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN: VISITOR 2

## Carrying Capacity for Visitors

**Objectives :**

To apply the carrying capacity concepts in determining acceptable levels of use.

**Presentation :**

1. Define "carrying capacity": the level of visitor use an area can accommodate with high levels of satisfaction for visitors and few impacts on resources. The concept implies that there are limits to visitor use. Carrying capacity estimates are determined by many factors; in the end, they depend on administrative decisions about approximate sustainable levels of use. People must not destroy what they have come to see.

2. Major factors in estimating carrying capacity are:

   (a) environmental
   (b) social
   (c) managerial

3. Environmental factors to consider include the following:

   * Size of area and usable space.

   * Fragility of environment. Some areas have very fragile soils, vegetation or other features vulnerable to use.

   * Wildlife resources. Carrying capacity is affected by numbers, diversity and distribution of wildlife. Record dry and wet season patterns, availability of highly attractive species, and their concentration areas.

   * Topography and vegetative cover. Rolling bush country can conceal or buffer visitors. In flat open areas visitors and vehicles are highly visible, reducing carrying capacity.

4. Social factors to consider include the following:

   * Visitor patterns. Is it evenly distributed or concentrated? Individually or in groups?

   * Tourists' viewing choices. If viewing is largely of a few attractions, crowding is more likely.

   * Visitors' opinions. How do visitors rate the park at present use levels? What are their opinions about crowding? First

settler syndrome.

* Availability of facilities. Accommodation, number of beds and campsites is a controlling factor.

5. Management procedures to consider:

(a) design tracks trails, etc., to distribute use widely; one way systems.

(b) reduce conflict between competing uses e.g. Separate roads for vehicles and tracks for pedestrians.

(c) provide adequate information and interpretation services.

(d) increase durability of heavily used resources (e.g. surfacing materials).

(e) limit use.

(f) access (restrictions).

Handout :

Activities : Field inspection of a well used site to evaluate how its present use patterns could be improved and determine ultimate use levels.

Assignments :

References :

**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN : VISITOR 3

## Tourism : General Overview

**Objectives :**

To provide perspective on the tourist industry - its structures, roles, costs, benefits, and the implications for protected area management.

**Presentation :**

1. Distinguish local or domestic tourism and international tourism. Distinguish "resort" tourism and "resource" tourism, and discuss the key role of protected areas in "resource" tourism.

2. Define "tourist": a person temporarily visiting an area for pleasure, education, or both.

3. Illustrate the broad nature of the tourism industry and its elements: travel agencies, transportation companies, promotional agencies, government organisations, accommodation and food concerns, recreation facilities, and numerous miscellaneous services, flow on effects. Annually, about 300 million tourists spend about $30 billion worldwide. Tourism represents about 6% of world trade.

4. Explain the economic importance of tourism, value of tourism to the country and to the region. Discuss the concept of economic multipliers, how money spent by the tourist trickles down to other areas of the economy.

5. Discuss what the tourist comes for and why.

   (To see the country, its people, the weather or visit a specific site).

6. Discuss socioeconomic benefits of tourism:

   (a) generates local employment
   (b) stimulates local industry
   (c) generates foreign exchange
   (d) diversifies economy
   (e) stimulates rural economy and encourages rational use of marginal lands
   (f) improves intercultural understanding and global communication
   (g) prompts conservation
   (h) provides a basis for economic justification for National Parks and protected area establishment (also provides an argument against short term gains from resource exploitation).

7. Show the negative side of tourism:

   (a) has high infrastructure requirements (airports, hotels, etc).
   (b) directs much of the financial benefit away from the host country
   (c) can increase prices of goods because of tourist demand
   (d) can erode cultural values and create artificial demands
   (e) can have environmental impacts - conflict with the primary conservation values of the National Park or Protected Area.

8. The benefits of tourism should be recognised, but not exaggerated.

   Its adverse effects should be faced and limited by careful planning.

9. Toursim guidelines :

   * Co-ordinate regularly with tourism organisations. Cultivate contacts, attempt to educate them about the values or protected areas and appropriate levels of development.

   * Provide tourism organisations with clear information on protected area facilities and programmes.

   * Determine the area's carrying capacity for tourism.

   * Monitor the impacts of tourism to ensure the area's integrity.

   * Ensure that tourism developments blend with surroundings to maintain the environment's natural appearance.

   * Ensure scale of tourist development is compatible with the primary values of the protected area.

Handouts : "Tourism - The Sleeping Giant Awakes" paper by Bing Lucas, Director General, Lands and Survey, New Zealand.

Activities : Invite a representative from a tourist organisation along to discuss their viewpoints.

Assignments : Evaluate a tourist operation that is operating within a protected area.

References :

**Managing Protected Areas in the South Pacific Region - 1987**

**Handout for Lesson : Visitor 3**

# TOURISM
## The sleeping giant awakes

*Towards the end of last year the Director General of Lands and Survey, Bing Lucas, addressed the 57th annual conference of the Royal Australian Institute for Parks and Recreation held in Launceston, Tasmania. The subject of the address was "Parks, Recreation and Tourism" from a New Zealand perspective. We reproduce here an abridged version of the speech.*

Tourism is big business. Internationally it is the second largest industry behind oil, while in New Zealand it is the sixth largest sector in the economy.

The importance of tourism is noted by the Government and others: at last year's Economic Summit Conference, the then President of the Manufacturers' Federation, Earl Richardson, termed the industry "the sleeping giant" of the economy. At the same conference, a tourism spokesman predicted the number of overseas visitors could increase from 583,000 to one million by 1990.

The way the environment is protected, managed, marketed, presented and enjoyed is a key to having satisfied customers who will tell others. If it is managed sensitively, the environment will remain a sustainable resource to be enjoyed in perpetuity, both as the people's heritage and the base for tourism to thrive.

Three main points emerge in discussing tourism:

- It can provide an economic justification for conservation, and by enabling people to enjoy protected areas, can promote public awareness and support for them.
- If overdeveloped or uncontrolled, tourism can endanger natural areas, cause visual and cultural pollution and destroy the very resource on which it is based.
- There is a need for close communication and co-operation between the tourist industry and park managers.

### Visitor expectations: a changing scene

In 1980 Professor Brian Henshall of Auckland University prepared the report: "Tourism for Tomorrow: A Strategic Analysis of Tourism in NZ". The study listed the relative importance of factors which make New Zealand attractive to tourists. In order of importance these were: natural beauty and climate; cultural and social harmony; accessibility to the region; exemplary attitudes towards tourists; the groupings of attractions within the country; prices; sport, recreation and educational facilities; shopping and commercial facilities.

A further survey asked visitors and New Zealanders to identify what they would like to do on their next holiday. At the top of both lists was "visit a national park" — at 71 percent for New Zealanders and 70 percent for overseas visitors. Next highest in both lists was "visit a museum" and in third place for overseas visitors was "visit botanical gardens". High on the list for overseas visitors were visiting arts and crafts and Maori cultural centres, and seeing a New Zealand family in their home.

It seems that a psychological change has taken place. As the Henshall report said: "The new tourist wants to do more than 'collect' countries: just going there is not enough. They want to experience a country — meet the people and gain a real insight into the culture." Some call this a change to "inner directed" tourists — people less concerned with following fashions but more responsive to inner needs. They want to share in the life of the country they travel through. For example, one of the factors attracting West Germans to New Zealand is the country's nuclear free image.

With the move away from the "been there seen that" syndrome, travel patterns in New Zealand have changed significantly.

Another study, "New Zealand Tourism: Issues and Policies" published last year showed that 66 percent of our visitors come from Australia and North America, followed by the UK and Japan, with rapid growth from West Germany and South-East Asia.

On average these people stay for 27 days, and many of them now drive themselves. The proportion who see New Zealand through the windows of a coach has dropped from around 70 percent to 57 percent, and this is predicted to come down even further.

I recall recently, when walking the Milford Track, meeting a South Australian family who were spending four days enjoying what is quite a strenuous walk. But the highlight of their time had been the excitment of white-water rafting on the Tongariro River.

Promotion of tourism used to focus on luxury hotels from which the scenery could be viewed. Now, adventure and outdoor action holidays are advertised. Television has enabled people to see the wonders of the world on a small screen — an experience not dissimilar to looking through the window of a coach. What television or the coach cannot offer is a sense of participation, whether tramping, riding, exploring a glacier, skiing or relaxing in a hot pool.

### Pressure in key areas

Not only are more people visiting less traditional tourist areas, they are also putting pressure on a few key destinations.

Mount Cook and Milford Sound are both priority places to see. Both require redevelopment which is happening slowly — in the case of Mt Cook, redevelopment started in 1973, but it is not yet finished as costs have had to be absorbed in competition with capital works demands in ten national parks. A Milford Sound development plan was agreed to by all parties in 1980, but needs an estimated $3.2 million to implement, and debate on where to find this continues.

But tourists who stay an average of 27 days will not spend all that time at Mt Cook or Milford Sound... they will visit a wide range of places and seek a wide range of experiences away from cities and main tourist resorts.

As tourists become more mobile and more discriminating they demand better presentation. A whole paper could be devoted to the presentation of natural and historic places and the importance of integrity, sensitivity, accuracy, imagination and quality, in visitor centres, on-site interpretation and signs.

Growing awareness of our Maori heritage poses a challenge in sensitivity as we endeavour to interpret places and events through Maori as well as European eyes. For example, we need to avoid the inbuilt tendency to say that Abel Tasman "discovered" New Zealand when Polynesian navigators did so centuries earlier. And we need to avoid the risk of prostituting a culture.

### The good, the bad and the ugly

There are many examples of what to avoid, and I want to draw from further afield as well as from New Zealand for some examples of the good, the bad, the ugly and the beautiful.

Ten years ago the Nepalese Government decided the approach to Mt Everest

needed protection because of the high numbers of trekkers. They invited the New Zealand Government to help establish the Sagarmatha National Park. In this high altitude, roadless region, timber grows slowly and cannot meet the demand for tourist construction and firewood for trekking parties. Now with national park management, campsites and simple lodges have been built, alternative fuels are encouraged and a reforestation programme has begun. A visitor centre shows sensitivity towards Sherpa life and beliefs.

In some North American National Parks camping sites have had to be closed while they recover from over-use, and in certain very popular areas development has spoiled enjoyment of natural wonders. Therefore, today at Yellowstone geysers are seen from walking tracks placed to keep as natural an atmosphere as possible, while roads have been relocated so they do not intrude on the natural wonders.

Generally in New Zealand our relatively low use has kept us clear of such problems. However one hotel development in Rotorua which dominates the Whakarewarewa thermal area gives a relatively few guest rooms a view but intrudes into the experience of thousands enjoying the thermal features.

Not all development disasters in natural areas lie at the door of the tourist industry. US park planners, seeking to cater for visitors to Carlsbad Caverns National park in Texas, established a car park above one of the major caverns. This reduced the seepage which kept stalactites and stalagmites healthy. Then the micro climate of the cavern was altered by establishing a cafetaria underground and a passenger lift to the surface. Consequently, the condition of the cavern deteriorated significantly.

What is done outside a national or historic park can create a negative impression. So can advertising signs and distortions of culture with plastic Navajo "teepees" in Arizona, signs and wires in New Zealand and souvenir stalls in Japan's Fuji National Park. The use of names of no significance to the region and garish motel signs act as a repellent to me. In Rotorua, I'll always stay at a motel with a Maori name ahead of one with a name imported from Las Vegas, especially if it has the added attraction of its own thermal pool!

## Shattering roar

Aeroplanes in isolated regions can spoil a wilderness experience. Recently a tramper on the Milford Track recounted how, "just as you approach the top of the McKinnon Pass the atmosphere can be shattered by the reverberating roars of the tourist planes flying low overhead."

A similar problem exists in Mount Cook National Park where ski-equipped aircraft have enabled thousands of people to experience the awesome grandeur of the mountains. At the same time, it is easy to understand the reaction of climbers being greeted by an aircraft bringing tourists onto the snow. At Mt Cook, flights are controlled as far as possible, showing that management can deal with such conflicts.

Tourism has often been the catalyst for conservation. Competition between two major Canadian railway systems led in large measure to the establishment of Banff and Jasper National Parks. McKinnon, who established the guided Milford Track last century, played a significant part in developing the public appreciation which ultimately led to it becoming a national park.

The growing demand for resource-based tourism is typified by Te Rehuwai Safaris operated by a Maori group on Maori land and in Urewera National Park, combining a recreational and scenic experience with contact with Maori spiritual, cultural and social values.

World-wide, there is growing interest in "nature tourism". A notable example is the three-day package offered by Tiger Tops in the Royal Chitwan National Park in Nepal's lowlands. This combines staying at a jungle lodge, wildlife viewing from elephants, and seeing the Asian rhino and with luck the Bengal tiger, punting on rivers, riding and walking jungle trails and tent-camping. This organisation employs its own biologist.

The economic value of nature for tourism can be a powerful weapon in added justification for the protection of nature. I recall looking at a fine stand of trees in Mount Rainier National Park and hearing the Park Superintendent say, "The loggers would love to get hold of them but the real dollars in those trees are tourist dollars and we can sell them over and over again". At the Thyangboche Monastery at the approaches to Mount Everest I heard the same thought expressed by the High Lama. Discussing the potential of tourism to provide income and employment for the region, the High Lama said, "here, the mountains are our mines".

The tourist industry in New Zealand has such a stake in the positive values of the environment that, rather than being a contributor to environmental degradation, it should be a strong force for environmental quality and, increasingly, it is. Indeed, there is keen support from tourism as we plan to celebrate the centennial of our national park system in 1987.

Let us remember that true conservationists are people who know that the world is not given to them by their parents but borrowed from their children.

# LESSON PLAN: VISITOR 4

**Objective :**

To outline the basic points in ensuring visitors safety.

**Presentation :**

1. Visitors, often from overseas and urban areas, are generally unfamiliar with the hazards of the local environment. Where possible public safety programmes should be developed to minimise accidents.

2. Appropriate law enforcement :

   (a) protects the park from people by enforcing regulations.
   (b) protects people from park hazards by minimising them.
   (c) protects people from crimes and conflicts with other people.

3. Major hazards should be identified: steep slopes, poisonous snakes, dangerous wildlife, water bodies, and insects. Management actions include :

   (a) regulations;
   (b) information for visitors about hazards;
   (c) good site planning (e.g. placing campsites away from mosquito swamps);
   (d) removing hazards (e.g. dead trees in campsites);
   (e) placing physical barriers and rescue methods.
   (f) training staff in search and rescue methods.

4. Proper maintenance of facilities is also essential. Paths should be cleared, rubbish collected, abandoned structures removed.

Handouts : Law enforcement.

Activities : Field trip, students should identify safety hazards and then discuss improvements.

Assignement : Students should discuss the type of approaches to safety which would be appropriate in their particular area.

References :

**Managing Protected Areas in the South Pacific Region - 1987**

**Handout for Lesson: Visitor 4**

## Law Enforcement

1. **Objectives :**

To protect the resource and the values that the visitor comes for.

2. **Note :**

- Educational programmes should always be the first step in protecting areas.

- It is important that any law enforcement approaches are consistent with the local standards and traditions.

- These notes only provide a broad outline of law enforcement approaches and must be adapted to suit the local situation.

3. **Know :**

1. The Act, Bylaws and any regulations
   (and the reasons for them)

2. Your powers
   (and limitations)

4. **Contact with the Visitor :**

(a) Be polite - never mind how obnoxious the offender may be, officiousness can only damage your case. Remember you are there to service the park for the everlasting use and enjoyment by the public. Keep this in mind. Do not blast someone because they offended you personally. Do not be 'possessive' but 'care'.

(b) Act within your powers. Do not bluff. They may know, and it only undermines your authority.

(c) Get the offence into perspective. Size it up as you approach.

(d) Be positive. Know what you are doing and why.

(e) Put yourself in their position. Ask yourself now 'what have I done unknowingly or unwittingly'.

(f) Do not be a hero.

(g) Understand people.

4. **The Offence :**

| | |
|---|---|
| Was it wilful | (vandalism) |
| Is it a problem | (trail bikes)<br>(rubbish) |
| Get it in perspective | (paper)<br>(broken bottle)<br>(murder) |

5. **Educate or Prosecute :**

We educate:

- In general on a continuing basis
- Children, except very blatant second offences.

We prosecute:

- In serious or repeated cases
- Dangerous litter
- For commercial gain

6. **Recording and Reporting :**

Be accurate - clear - factual

7. **Further Action :**

1. * A warning letter.
   * Court Action.

2. The legal machinery.

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# LESSON PLAN : VISITOR 5

## Introduction to Interpretation

**Objectives :**

To outline the basic rationale for and methods of interpretation programmes in protected areas.

**Presentation :**

1. **What is Interpretation ?**

Definition of "interpretation": a communications service for park visitors, closely related to public relations, conservation education, and information services. The following elements characterise interpretation:

* Interpretation is a voluntary educational activity.

* Interpretation reveals information through first-hand objects or experiences and by illustrating media.

* Interpretation's purpose is not to instruct, but to provoke; it is an exercise not in teaching facts, but in stimulating ideas.

* Interpretation is an opportunity to share our knowledge of nature, to affect attitudes, and to solicit support for conservation from a receptive public.

* Interpretation is a bridge connecting the visitor, the protected area, and the manager.

2. **Why have Interpretation ?**

"Not having an interpretation programme in a park is like inviting a guest to your house, opening the door, then disappearing". (Sharpe, 1976). The reasons for interpretation:

To improve visitor understanding of the area. Protected areas stimulate curiosity: How did it get there? How does it work? What does it mean? Many visitors are foreign and are unfamiliar with the region's environment.

To make the manager's job easier by influencing behaviour and attitudes and by soliciting support. Interpretation leads to understanding, which leads to appreciation, which leads to protection.

3. Two approaches to Interpretation :

   (a) person contact through information services (entrance gate, visitor centre), conducted activities (walks, bus tours), talks;

   (b) non personal contact through publications, signs and exhibits, audiovisual programmes, self-guided trails.

4. Skills required: The interpreter must enjoy working with people and be enthusiastic in sharing knowledge. They must be able to speak well and be prepared to communicate with those from different cultures and all age groups. They must be able to express ideas clearly in written material. They often have additional skills in photography and operation of audiovisual equipment.

5. Selecting the most suitable method.

   * Discuss handout V5 (H)

Handout : Selecting the most suitable method.

Activities : Display examples of available guidebooks and brochures.

Present a slide programme on interpretative facilities.

Assignment : 'Teaching Conservation in Developing Nations'

Reference : US Peace Corp. 1977.

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**Handout for Lesson : Visitor 5**

## Selecting the most suitable method

There are many forms that interpretation can take, some will be better than others for a particular site. Which one is best for your situation? This will depend upon many things, money, staff, the type of visitor, local condition and other factors.

**One way of assessing a proposal is to ask :**

* Does it require staff to operate it?
* Does it need electricity?
* Could it be easily damaged or stolen?
* Will maintenance be a problem?
* What effect will the weather have on it?
* Will it stand up to continuous use?
* Can a substitute be easily made if needed?
* Is it replacing an existing unit or is it a new programme?
* Is it a proven idea, how effective is it, any known problems?
* What will it cost; to build, to maintain?
* Will it be acceptable to the public, not too extravagant or intrusive?
* What effect will it have on the visitor and the visitor on it?
* What effect will it have on the environment where it is to be used?

**Consideration in selecting a suitable method :**

The visitor:

* Aim to cover as many types of visitors as possible
* Aim to make the visitor feel comfortable with it
* How long will the visitor have in the area?
* What hours will the visitor want to use it (daytime, 24 hours)
* Ensure it does not lead the visitor into an unsafe situation (directly or indirectly)
* Provide variety to maintain interest

The resource:

* Select a theme
* Ensure visitor use does not adversely affect the environment
* Ensure any development does not adversely affect the environment

The method:

* Its availability
* Its cost
* Its relationship to what is being interpreted
* maintenance problems can stem from poor location, poor design,

poor construction

* The effect of the weather and the environment

**Choices**

| **Manned** | **Unmanned** |
|---|---|
| information/visitor centres | information shelters, on-site exhibits |
| guided walks & other activities | self guided walks |
| talks to group both on & off site | pamphlets and publications |
| living interpretation | outdoor displays |
| cultural demonstrations | signs and labels |

Make a matrix, media types/subject to be interpreted, this helps clarify the options.

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# LESSON PLAN : VISITOR 6

## Visitor Centres and Museums

**Objectives :**

To outline the role of visitor centres in protected areas and the fundamentals of their design and operation.

**Presentation :**

1. Note various names for similar facilities: information centre, education centre, nature centre, park museum. Basically, a visitor centre is a structure that provides information to protected area visitors. It is usually the first stop, where the visitor receives orientation on the area, and is often the working base for information staff.

2. In some parks the visitor centre is combined with the gate entry building. In other areas it is a separate structure consisting of the following components: reception and entrance area; information desk; display and specimen area; audiovisual room, staff or research offices or both; washroom and toilet facilities.

3. The following guidelines for information desk staff are offered:

   * Information needed by visitors:

     (a) recreation opportunities in the areas;
     (b) programmes and interpretation facilities offered;
     (c) regulations and safety procedures;
     (d) basic orientation;
     (e) locations of facilities and supplies

   * Information staff should be uniformed, neat and professional in appearance.

   * Information staff must be familiar with the area; an information manual is useful.

   * Complaints should be acknowledged and handled courteously.

   * Information staff performance should be evaluated periodically by supervisory staff.

Handout :

Acitivities : Slide presentation on examples of visitor centres. Show plans of typical buildings.

Assignment :

References :

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# LESSON PLAN : VISITOR 7

## Displays and Exhibits

**Objectives :**

To present the basic principles of planning and designing displays and exhibits.

**Presentation :**

1. Displays and exhibits have advantages as communications media in a protected area:

   (a) they are continuously available;
   (b) they are "self-pacing";
   (c) they can use original objects and specimens;
   (d) they can be located indoors or outdoors, and can be portable;
   (e) they can put the message across in areas where staff may not be available for on site interpretation.

2. Exhibit planning guidelines:

   (a) choose a theme which is anticipated to be of interest, e.g. tropical rainforest;
   (b) identify the audience and aim to meet its needs;
   (c) define the objectives, e.g. education, entertainment, motivation, or public relations;
   (d) decide what type(s) to build, e.g. panels (text, diagrams, photographs), objects and specimens, dioramas, scale models, live exhibits.

3. Factors in exhibit design:

   (a) location (inside, outside, in visitor centre);
   (b) mobility and portability for use in schools, fairs;
   (c) durability (and resistance to vandalism);
   (d) position (preferably eye level) and viewing distance;
   (e) lighting and sunlight's effects on colours;
   (f) availability of materials, e.g. glass;
   (g) attention-getting title;
   (h) brief, readable, provocative labels;
   (i) effectiveness of specimens and adequacy of accompanying text;
   (j) exhibit sequence, a logical flow of ideas, use of partitions;
   (k) maintenance and deterioration (if you cannot maintain it, do not build it);
   (l) use of pesticides and fungicides;

(m) desirability of visitor participation exhibits, e.g. terrariums, aquariums;

(o) plant, rock, and insect collection (must be attractively presented and interpretative);

(p) animal exhibits (obtained from road kills, mounted study skins, bird feeders.)

(q) size, space and layout are all important. Don't bury the visitor in information or detail.

Handout :

Activities : Select a site and student teams to carry out the following assessment:
*Inventory all exhibits
*Identify the themes, uses, audiences appealed to.
*In view of the guidelines above, identify deficiencies in suitability, currency, lighting and position, condition of specimens, maintenance, etc.
*Present recommendations on improvements.

Assignments :

References :

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# LESSON PLAN : VISITOR 8

## Audiovisual Shows

**Objectives :**

1. To train students to use a standard slide projector and to present a prepared slide talk.

2. To train students to use 16 mm movie projectors and overhead projectors.

**Presentation :**

1. Instruct students in use of:

   (a) slide projector
   (b) 16 mm movie projector
   (c) overhead projector
   (d) video units.

2. Review handout "Slide presentation materials".

Handout : (a) "Slide Presentation Materials".
(b) Slide programme : National Parks and Reserves in the South Pacific.
(c) Evaluation of a slide show presentation.

Activities : Require a student team to assemble and present a slide programme. Ask others to evaluate the presentation using the form in handout.

Assignment :

References :

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**Handout for Lesson : Visitor 8**

**Slide Presentation Materials**

**Slide Show Check Sheet**

I **Preparation**

A. Early

1. Audience analysis : number, sex, age, education.
2. Travel arrangements.
3. Equipment:

   * projector (spare?)
   * projector stand
   * screen
   * slide cartridges
   * extention cords (power, control)
   * bulbs
   * pointer
   * lens cleaner kit (lens cleaner, tissue, brush)
   * trouble kit (pocket knife, screwdriver, masking tape, outlet adaptor, doorstep.

4. Slides (clean, relevant, current, high quality, not too many.
5. Biographical sketch.
6. Rehearse with tape recorder (slides in order, well timed presentation, no goofs, no distracting mannerisms).

B. Day of Presentation

1. Arrive early, check facilities:

   * keys
   * ventilation, heating
   * seating
   * P.A. system
   * cleanliness
   * water
   * lights
   * unwanted light (mask off)

2. Set up equipment:

   * tie down cords
   * mark floor, if equipment is to be moved
   * focus first slide, turn off projector
   * fill screen to top (horizontal slides)
   * position podium to view screen

* position projector so control cord reaches podium
* check slides for correct order and right way round

3. Appoint light controller, show switches, give light cues.

4. Appoint projector controller, give instructions, cues.

5. Give biographical sketches to host.

II **Presentation**

A. introduction with light on, icebreakers, establish rapport.
B. Transitions (lights off) : never show plain screen in dark room, or allow room to be completely dark; show slide on screen before turning off lights; turn projector off after room lights are turned on.
C. Turn projector fan off at end.
D. Close with light on.
E. Keep on schedule.

III **Evaluation**

Make and file evaluation : title, place, date, response, slide gaps, bad slides.

**Common Slide Show Goofs**

1. Spilling tray of slides.
2. Cannot find light control switches.
3. Failing to give introduction before lights out.
4. Dark room, no slide set up and focused.
5. White screen, no slide set up.
6. Unwanted light on screen.
7. Calling for all slides: "Next slide...next slide..."
8. Slide does not fill screen, or spills onto wall.
9. First slide misaligned or out of focus.
10. Slides reversed, with type reading backward.
11. Slides upside down.
12. Screen too low.
13. Use of repetitive mannerisms:"This here slide...," "This is a typical...," "A...ah...andah..."
14. Graphics too small to be read, too complex.
15. "Sorry you cannot see this..."
16. Standing in front of screen.
17. Poor quality slides: blurry, dark, light.
18. Misusing pointer.
19. Changing slides too rapidly.
20. Talking to screen, not audience.
21. Turning lights on without warning audience.
22. Leaving projector fan on during discussion after show is over.
23. Not making closing statement with lights on.
24. Not bringing spare bulb to replace burned-out one.
25. Showing too many slides.
26. Having slides not relevant to the topic.

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**Handout for Lesson : Visitor 8**

**Slide Programme : National Parks and Reserves in the South Pacific**

**Introduction** (lights on)

A. Introduce yourself, welcome audience.

B. Tell what the talk is about.

This short slide programme shows some of the national parks and reserves that have been created by island countries in the South Pacific to protect areas of scientific interest, natural beauty, or importance for resource management.

**Slide Show** (lights out)

| | Slide | Description |
|---|---|---|
| 1. | Title | National parks and reserves are places set aside to protect features of natural or historic interest. A park is open to the public for uses that do not disturb its natural features, like recreation or education. A reserve is smaller or has a special purpose like protecting an endangered species or a tourist site. |
| 2. | Park facilities | There are only a few national parks in the region, including 1 in Western Samoa, 2 in New Caledonia and a few in Papua New Guinea. This is a view of the visitor facilities in Varirata National Park near Port Moresby, Papua New Guinea. |
| 3. | Palolo Deep from air | More countries have established marine reserves, including American Samoa, New Caledonia, Papua New Guinea, Tonga, Western Samoa and Vanuatu. This is an aerial view of the Palolo Deep Marine Reserve near Apia, Western Samoa. |
| 4. | Reef flat | Palolo Deep is a depression in the reef flat that is often visited by tourists. |
| 5. | Corals | It contains many fish and large corals. Making it a reserve protects it beauty as a tourist resource. |

| | | |
|---|---|---|
| 6. | Ha'atafa Beach | Tonga has created 5 marine reserves in the waters off Tongatapu. This is the Ha'atafa Beach Reserve protecting a beach and reef often visited by tourists. |
| 7. | Corals in reserve | The Tongan reserves protect areas of rich coral and reef life that should become centres of reproduction helping to maintain the fish populations on surrounding reefs where fishing is allowed. |
| 8. | Corals in reserves | Such reserves are especially important in areas where there are many fishermen and problems of overfishing. However enforcing the prohibition on fishing in reserves is not always easy. The people must be educated to see the importance of the reserve. |
| 9. | Sign, Merlet Reserve | In New Caledonia, the Yves Merlet Reserve protects a 16,000 hectare section of the barrier reef. There are also reserves around inlets often visited by tourists, and a rotating reserve protecting the most visited parts of the barrier reef from overfishing. |
| 10. | Rose Atoll | Some countries set aside whole uninhabited islands or atolls as reserves. This is the Rose Atoll National Wildlife Refuge in American Samoa. There are other island reserves in Kiribati, Cook Islands, French Polynesia, and the Northern Mariana Islands. |
| 11. | Sand Island | Other types of reserves are needed to protect the breeding areas of species that migrate around the region, such as turtles and sea birds. This is an islet on Tetiaroa in French Polynesia where seabirds breed. |
| 12. | Nesting bird | Seabirds, like many animals, are vulnerable to disturbance while nesting, so this protection is important if their populations are to be maintained. |

| | | |
|---|---|---|
| 13. | Archaeological site | Making a reserve may be the best way to protect historic and archaeological sites of great cultural importance. |
| 14. | Crocodile farm | Other conservation measures besides reserves are also needed to protect wildlife. In Papua New Guinea, crocodile farms like this one are encouraged to provide village income. The people then protect the wild crocodiles which provide the babies for their farms. |
| 15. | Crater lake | Many more parks and reserves are still needed to protect the important natural areas, historic places and habitats of rare species in the islands, like this mountain forest and crater lake on Savaii, Western Samoa. |

**Closing** (lights on)

* Invite and answer questions

* Advise where further information can be obtained

* Thank audience

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**Handout for Lesson : Visitor 8**

**Evaluation of a Slide Show Presentation**

**NAME :**

**SUBJECT :**

| Item | Possible Points | Actual Points |
|---|---|---|
| Room set up | 10 | |
| Equipment quality | 5 | |
| Slide quality | 10 | |
| Slide arrangement | 10 | |
| Speech and pronunciation | 10 | |
| Commentary | 10 | |
| Speed | 10 | |
| Introduction | 5 | |
| Closing | 5 | |
| Knowledge of subject | 15 | |
| Total | 100 | |

Rapport with audience :

Comments :

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# LESSON PLAN : VISITOR 9

## Interpretative Signs

**Objectives :**

To present guidelines for planning and designing interpretative signs in protected areas.

**Presentation :**

1. Review each point in handout, "Guidelines for Preparing Interpretative Signs".

2. Ask student teams to prepare an interpretative sign for a specific area, give information details.

Handout :

Activities : Ask student teams to present their texts and suggest designs, materials, locations. Evaluate signs and select a "winner".

Assignment : Read U.S. Peace Corps (1977), Teaching Conservation in Developing Areas, Appendix D.

References :

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**Handout For Lesson : Visitor 9**

## Guidelines for Preparing Interpretative Signs

Two classes of signs are used in protected areas: administrative signs and interpretative signs. Administrative signs indicate entrances, give directions, and convey basic information. Interpretative signs carry more complex messages, explaining to visitors the natural or historic features of the area. The following guidelines should be considered in preparing interpretative signs:

1. Message. The message should be informative yet brief, usually 50 words at most. It should appeal to visitors of various educational and cultural backgrounds. The facts presented must be accurate and interesting. Try to use maps and illustrations to convey the information.

2. Text Format. Usually an interpretative sign begins with a headline, which should be short and attention-getting. Next, the lead paragraph should contain the highlights of the message in a light, fast-paced style. The interior pargraph, if required, further develops visitor understanding of the feature. Finally, the closing paragraph gives a summary or clarifies what action is suggested. Here is an example of an interpretative sign from Amboseli National Park in Africa.

   > You are climbing a small volcano that, over time, many have ascended before you. Some came for the view, others came on business.
   >
   > Rangers scan for poachers from here. Others watched for slave caravans and ivory traders. The early Wandorobo people camped here as they hunted. To the Masai the hill is know as NOMIATOR, the place of pottery.
   >
   > Evidence shows too that early man visited here. He sat where you will sit and gazed where you will gaze.

3. Accuracy and clarity. Subjects must be researched thoroughly, and material given must conform to fact. The message must be clear, concise, interesting, and understandable, and should contain no error in spelling or typesetting. Avoid large words or jargon.

4. Design and materials. Signs must be attractive and must complement the natural landscape. Wood and rock are the most commonly used materials, since they are locally available and have a natural appearance. The location and height of the sign should be carefully considered. The type must be large enough to be read comfortably. Signs should not be mounted on trees.

5. Maintenance. Vandalism, sun fading, and other damage require that signs be regularly maintained. Neglect and disrepair will encourage vandalism. Orient the sign away from direct sunlight or provide shade.

6. Multi-language signs require more thoughtful design.

**References :**

K. Berkmuller, 1981, Guidelines and Techniques for Environment Interpretation, Chapter 3 (Ann Arbor: University of Michigan).

G. Sharpe, 1976, Interpreting the Environment, Chapter 12, (New York: John Wiley & Sons).

U.S. Peace Corps. 1977, Teaching Conservation in Developing Nations (Washington D.C.: U.S. Government Printing Office).

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# LESSON PLAN : VISITOR 10

## Publications

**Objective :**

To present guidelines for preparing information publications.

**Presentation :**

1. Identify and discuss the different types of publications available, from the very simple pamphlet to the more complex books.

2. Consider their purpose or objectives, who they are aimed at, the costs involved and the methods of distributing them.

3. Review handout "Guidelines for Preparing Interpretative Publications".

4. Circulate a selection of protected area publications from various countries. Discuss these in relation to the guidelines. Allow students time to review 20-30 different pamphlets.

Handout : Guidelines for Preparing Interpretative Publications.

Assignments : Have student teams prepare mock-up pamphlets including text and sketch maps for an area of their choice.

References :

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**Handout for Lesson : Visitor 10**

## Guidelines for Preparing Interpretative Publications

Pamphlets can provide information effectively if prepared with the following guidelines in mind :

1. Aim of pamphlet. Who is it aimed at, what information do you want to relay and why.

2. Overall appearance. They should be inviting to the reader. Do not be overly concerned with the technical aspects of the message without regard to whether the message will be read.

3. Attractive cover. The cover creates the initial impression of the brochure. If it is done well the reader will be encouraged to open the brochure and read it. The title should be concise and informative.

4. Proper size and shape. Consider the convenience of an envelope size for mailing purposes, or a handy shirt pocket size.

5. Conciseness. Use as few words as possible to present the message. Visitors in parks are generally not receptive to lengthy publications.

6. Pictures and diagrams. These can improve the publication's appearance as well as reduce the length of text required. Maps are a must.

7. Eliminate bureaucratic jargon. Do not try to impress the reader with technical jargon and artificial eloquence. Try to be factual, eliminating agency bias and personal values.

8. Local contact. Include an address and contact for those wishing to pursue further the information in the brochure.

9. Management problems. If the brochure focuses on a management problem, indicate the regulations and reasons for these actions. Try not to give the brochure a negative tone.

10. Writing style. Style should be appropriate to the intended audience and it should strike a balance between entertainment and instruction. Once again, text should be succinct, with illustrations and photographs emphasised.

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# LESSON PLAN : VISITOR 11

## Developing Self-Guided Nature Trails

**Objectives :**

To present guidelines for designing and constructing nature trails in protected areas.

**Presentation :**

1. Review handout, "Guidelines for Developing Self-Guided Nature Trails in Protected Areas.

2. Ask student teams to design a nature trail beginning by surveying potential features.

Handout : Guidelines for Developing Self-guided Nature Trails in Protected Areas.

Activities :

Assignment : Teaching Conservation in Developing Nations, US Peace Corp. 1977.

References :

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**Handout for Lesson : Visitor 11**

## Guidelines for Developing Self-Guided Nature Trails in Protected Areas

A. General characteristics :

1. A nature trail is short (0.5 to 1.5 km), with a walking time of 30 to 60 minutes.

2. Ideally, a nature trail is constructed as a one-way loop beginning and ending in the same place

3. A nature trail is informative. Along the trail are signs or labels explaining its features. Signs can contain all the desired information, or simply numbers referring the visitor to an accompanying pamphlet.

4. A nature trail is inviting. It must have a clear, well marked beginning. It should be wide and flat enough to walk in comfort. It should have no steep climbs, muddy places, or physical obstacles.

5. A nature trail is clean and well maintained. Litter cans are often provided at the entrance and at rest stops. Vegetation and debris are regularly removed from the trail.

B. Developing and constructing a trail :

1. Conduct a thorough survey of the area where the trail is to pass. Make a list of all notable natural and historic features (e.g. rock outcrops, viewpoints, vegetation, fossils, waterfalls). Mark these features on a sketch map and arrange a trail route to connect them.

2. Walk the route to check its length and access to noted features and to determine the feasibility of trail construction.

3. The basic rule of construction is to disturb the natural scene as little as possible. Avoid unnecessary damage during construction by supervising workers carefully.

4. Clear the walking area of all obstacles along the trail and cut overhanging vegetation to a height of 2m. Avoid cutting large trees, and do not clear all debris down to bare soil. Fill depressions.

5. Build the trail with curves, avoiding straight stretches where possible. A winding trail is more interesting to walk. Avoid designs that "double back", which may encourage visitors to take short cuts.

6. Avoid steep hillsides and waterlogged areas. Ensure that drainage runs off, not down, the trail; install water bars and drains. In some areas the trail may be raised on a wooden walkway or stepping stones.

7. At rest stops provide simple benches.

8. At stream crossings or deep gorges it may be necessary to build bridges. Steps may be cut in rock, or a fallen tree may be used for passage if it is wide enough for safety.

9. Provide entrance sign with basic information (a map and the trail's length). Directional signs may be required at junctions.

C. Interpreting the landscape along the trail:

1. If possible, determine a theme (e.g. "Vegetation of...") for the trail, and give the trail a name reflecting that theme. This adds to the interest and appeal of the trail.

2. Decide between:

(a) printed labels along the trail and
(b) numbered labels referring to a printed leaflet.

3. At least 12 features, and at most 30, should be identified for interpretation. Information should be accurate, interesting, brief and easy to understand.

4. A map must be provided, either on a sign or in a leaflet. Also consider providing a checklist of "things to see along the trail". A leaflet, if used, need not be expensive but should include sketches and diagrams and be visually attractive.

D. Maintenance of trail:

1. Ensure adequate maintenance of the trail and its signs and facilities, and of any information or leaflets associated with it.

2. Monitor trail use and conditions.

**References :**

E.Berkmuller 1981, Guidelines and Techniques for Environmental Interpretation (Ann Arbor: University of Michigan)

R.K.Grater 1976, The Iterpretater's Handbook (Southwest Parks and Monument Association).

G.Sharpe 1976, Interpretating the Environment (New York: John Wiley & Sons).

U.S.Peace Corps 1977, Teaching Conservation in Developing Nations (Washington, D.C.: U.S. government Printing Office).

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# LESSON PLAN : VISITORS 12

## Guided Walks

**Objectives :**

To outline the main points in conducting an educational walk.

**Presentation :**

1. A guided walk provides a tremendous opportunity for the interpreter to help the visitor become acquainted with the environment. It provides the personal touch which so often can enrich a visitors experience.

2. Guide must be enthusiastic and knowledgable.

3. Organise your walk beforehand, develop a theme.

4. Consider the visitors, they must be relaxed and enjoy themselves. Take into account age, interest and ability and relate to length of trip, type of track and level of knowledge of provide.

5. Be prepared for anything.

6. Try discovery, asking why, what, when, where, how and who?

7. Review handout.

Handout : "Guided Walks"

Activities :

Assignments : Prepare a walk for a specified area.

References : Sharpe, G. 1976, Interpreting the Environment, New York. John Wiley and Sons.

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**Handout for Lesson : Visitor 12**

## Guidelines for Preparing Guided Walks

A guided walk provides a special opportunity for visitors to experience and become acquainted with, natrual and cultural history, the environment and ecology by appreciating it with the help of an interpreter.

Five points effective in all guided walks are:

1. ARRIVE EARLY - be there before starting time to mark the assembly place, greet people as they arrive, be friendly, smile. Divide your attention amongst the group, not on an individual or family.

2. START ON TIME - do not make excuses about waiting for late comers, remember the rest made the effort to be on time. Start with an introduction, introduce yourself, be enthusiastic. When you do move off - if possible make your first stop in view of starting place so late comers can join up.

3. DESCRIBE THE ACTIVITY - clearly and concisely explain what will be involved, visitors need to know what they are in for, what gear is needed, make sure they have it. Establish where activity starts and ends, condition of track, how long it will take. Tell them your theme for the walk, encourage questions.

4. DO IT - Prior to the walk you will need to have developed your walk plan.

   Developing the walk :

   (a) Make an inventory - of the area, get to know the area, make notes, sketches etc. of items of interest.

   (b) Define a theme - from the inventory you should be able to develop a theme or themes.

   (c) Gather facts - Research items of interest so you can give a better story about them.

   (d) Outline walk - just as you outline a speech, develop storyline, but be flexible and ready to change to suit the audience or circumstances.

   (e) Length of stops - depends on group size, ages, and interest, however as group size increases number of stops and length of stop should decrease.

5. END IT - plan a concluding statement to end on and wrap up loose ends. Then say goodbye. Do not let it just die awkwardly.

**SOME GENERAL INFORMATION**

STAY IN THE LEAD - control the pace, control the group. With large groups on a track stop them at convenient spots and locate yourself where they can all hear you.

FACE YOUR GROUP TO TALK - do not try interpreting as you walk, if they can not all hear they will get annoyed.

PROVIDE A CLEAR VIEW - make sure they can all see. Objects on the ground are impossible for large groups to see. Use large points of interest for larger groups.

SPEAK LOUDLY ENOUGH - be observant, watch group for signs, repeat questions out loudly for all the group to hear.

KNOW WHEN TO BE STILL AND QUIET - sometimes a point of interest will speak for itself, give lead-in beforehand, sometimes just sit and quietly absorb and meditate.

TAKE ADVANTAGE OF SPONTANEOUS ACTIVITIES OR INTEREST - be ready and flexible to interpret any unplanned occurrence.

USE ALL THE SENSES - see, touch, smell, hear and taste and encourage your visitors.

SET A REASONABLE PACE - keep it leisurely, but not too slow or too fast.

KEEP A HEAD COUNT - especially on longer walks, do not lose anyone.

EMERGENCIES - carry a first aid kit and know basic first aid, have a recognised plan of action to cover any major problem which may occur.

CHILDREN - generally are attracted to the leader, they can be a great asset, control enthusiasm, often a good bridge between you and the parents.

**References :**

**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN : VISITOR 13

## Marine Interpretation

**Objectives :**

To explore the opportunities and to discuss interpretation of the marine environment.

**Presentation :**

The marine environment is a fragile resource, care and understanding is necessary to preserve and protect it.

With 70% of our planet covered by water, the sea is an important component in our lives. Nowhere is this more so than in the Pacific region where it provides a source of food and a means of transport.

The marine environment is a very complex one, and to most people a very strange one. Interpretation can bring about a better understanding and appreciation of the sea and its environs.

**Waves**

Result mainly from the wind but are also caused by passing ships, earthquakes, landslides, changes in atmospheric pressure or gravitational pull.

They are three dimensional...height - length - period.

Wind waves... once a ripple is formed and wind has something to push against and the waves enlarge.

Seismic waves ... result from eathquakes - can be large and destructive.

Discuss... fetch, swell, surf zone.

**Tides**

Caused by the gravitational pull of the sun and the moon on the earth's oceans.

Spring tides (very high and very low tides) occur twice monthly at full and new moons.

**Intertidal zone**

The rise and fall of the tide every 12 hours shapes the pattern of the plant and animal life, the result is a series of horizontal zones of organisms which have adapted to those particular conditions.

Life can be very harsh, the upper zone is subject to long periods of exposure to the sun and air while those at low tide level are just the opposite.

**Beaches**

"Beaches are everchanging restless armies of sand particles - always on the move".

Sand movement is affected by wave action.

Look at beach profiles and study the other marks and effects made by the sea.

**Exposed beaches**

Consider the different adaptions of the animals who live in these areas, they are typically small and swift moving.

Use their life histories to show the story of survival in the surf and sand.

**Rocky Shore**

Special adaptations include the ability to cling to solid surfaces and to dissipate wave energy.

**Seashore Geology**

The seashore is constantly undergoing change, one of erosion and of accretion. This is a natural process which is not always appreciated by man who may have other ideas for use of the coastal land.

The coastal processes must be fully understood before man introduces structures or alters the coastal zone in any way which may disturb these natural processes.

**Ocean currents**

These are huge ocean rivers caused by the influence of the cold water from the earth's poles and the warm tropical waters. Subterranean trenches, continents and islands deflect these currents as do the earth's rotation and prevailing winds.

The currents affect not only the water temperature (and therefore aquatic life) but also the climate.

**The Atomosphere**

There is a strong relationship between the sun, the air and the ocean. Note the different effects of the land and the sea on evaporation and heat absorption.

Water vapour from the ocean forms clouds which are carried over the land, drop as rain and flow back to the sea in the rivers.

**Livelihoods**

Fishing, seaweed processing, marine farming and other employment opportunities.

Consider the difference between those using renewable resources (fishing) as opposed to those using non-renewable resources (mining) and the need for the conservation and sustainable use of all resources.

**Historical Voyages**

Relate stories of early explorers and adventurers.

**Shipwrecks**

Some areas have a long history and association of shipwrecks which provide interesting stories.

**Navigation aids**

Explain the various naviagational aids in the area, eg., lighthouses, buoys, beacons and markers and how they warn of the dangers.

**Recreational activities**

Discuss the range of activities normally carried out in the area, perhaps demonstrate some or even provide the opportunity for people to try them out.

Handout :

Activities :

Assignments :

References : G.W. Sharpe. Interpreting the Environment. 1976 (John Wiley & Sons. New York)

# LESSON PLAN : VISITOR 14

## Underwater Interpretation

**Objectives :**

To consider the various methods suitable for interpreting the underwater world.

**Presentation :**

Water tends to provide a major barrier when interpreting the life within it.

Unfamiliarity with the underwater world and the skills and the equipment needed to explore it often generate apprehension in the minds of many visitors.

There are numerous things that unfaimliar visitors worry about including the water temperature, visibility, currents, orientation, breathing, swimming ability, exhaustion, drowning, avoiding cuts, dangerous life-forms (sharks), seasickness, sunburn and discomfort from poorly fitting equipment (such as a leaking mask).

Many of the principles for land based interpretation apply equally to the undersea.

There are a number of methods worth consideration for interpreting the underwater world, these incude using:

Glass bottom boats
Guided trips
Self-guided snorkle trails
Self-guided scuba trails

**Glass bottom boats**

This is a good method which allows people to view the undersea life without equipment or the skills or worries associated with actually swimming.

It provides good opportunities for personal interpretation directly by an interpreter. Pamphlets, or on larger boats displays, are also worthwhile methods.

**Guided Trips**

Safety is of paramount importance. The ratio of staff to visitors is very important, it is suggested that there should be a minimum of two staff with a group and that each group should have an upper limit of about 12 people.

Light rafts towed by the leader are useful as resting places for the participants.

**Self-Guided Snorkle Trails**

1. As first impressions have a great impact, site selection for novice snorklers is most important.

2. Aim for visitor motivation rather than education.

3. Each element of the trail should stand on its own.

4. The trail should not be too long.

5. Undersea messages should be short - clear and concise. More detailed supporting information can be provided elsewhere, either on a pontoon or on land.

6. Any trail requires a lot of maintenance - especially to clean signs of marine growth and repair any damage caused by the sea or by vandals.

7. Signs need to be highly visible, resistant to corrosion and easily cleaned.

8. The trail must be adequately marked so as to avoid the visitor becoming disoriented.

**Self-Guided Scuba Trails**

The approach for scuba divers can be somewhat different as they are usually highly motivated and because their training means they are less inhibited by concerns about safety and discomfort.

1. Deep interpretive signs can still be useful as a way of directing a diver's attention to specific items of interest.

2. Underwater pamphlets with maps and sketches or photographs depicting the sea-life help increase a diver's awareness.

3. A thematic approach is suggested as being most appropriate for scuba divers concentrating on a particular story for that spot.

Handouts :

Activities :

Assignments :

References : Techniques for Underwater Intepretation
J.T. Hicks & N.J. Cornelius. 1985 Australia.

**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN : VISITOR 15

## An Introduction to Public Relations for Protected Areas

**Objectives :**

To acquaint students with the goals of public relations, and with some methods to help achieve these goals.

**Presentation :**

1. Definition of "public relations": the promotion of goodwill and understanding between an individual or organisation and the public through an effective communication programme.

2. Protected area management is always undertaken in a social framework. Resources are managed for people, in partnership with people, and by people. One might say that protected area management is 80% managing the public and 20% managing the resource. Protected area managers must possess public relations abilities. Components of public relations include publicity, press agentry, public affairs communications, advertising, promotion and persuasion.

3. Emphasise the importance of public relations to protected area establishment and management in the South Pacific given the limited understanding and appreciation of protected area values.

4. Functions of public relations:

   (a) Provide information on the need and benefits of protected area establishment and management.

   (b) Provide information to the general public on the role of the department and specific activities through the news media.

   (c) Inform special interest groups (e.g. visitors, tour operators, hunters, bird groups).

   (d) Provide educational materials for schools and teacher training.

   (e) Establish means of internal communication in the department.

5. Public relations are necessary because:

   (a) Government programmes are often viewed suspiciously by rural people.
   (b) Issues concerning wildlife, parks and protected areas are often emotional, misunderstood, or controversial.

(c) In the South Pacific there is often a lack of appreciation and understanding of conservation and protected area objectives.

(d) International attention is often focused on management activities.

(e) A more favourable political climate for conservation is needed.

6. Public relations requires:

(a) writing skills

(b) editing skills

(c) contacts with press, media, decision makers

(d) promotional and organisational skills

(e) public speaking skills

(f) communication abilities with differing groups and individuals

7. A public relations programme involves:

1. Determine the issue. Define the issues that require attention.

2. Determine the content of the message. Define exactly what you wish to communicate.

3. Identify the park's different "publics" or target groups. Be especially sensitive to influential leaders. Some existing publics include:

(a) user groups, e.g. tour companies

(b) conservation groups

(c) other government agencies, e.g. for agriculture, water, forestry, planning

(d) international conservation agencies, e.g. South Pacific Commission (SPREP), World Wildlife Fund, International Union for the Conservation of Nature and Natural Resources, United Nations Environment Programme.

(e) media, e.g. newspapers, radio

(f) private business, e.g. hotels, tour companies, air

charter companies.

(g) landowners, e.g. village councils.

(h) educational institutions

(i) community leaders

(j) persons knowledgeable about the area, e.g. writers, researchers

(k) local staff

4. Determine the communication method. This will be dictated by the type of message on the particular target group. It may include:

(a) person to person.

(b) formal personal presentations.

(c) newsletters

(d) posters, signs, displays

(e) radio

(f) news releases to radio newspapers

(g) publications, e.g. reports, brochures

(h) slide shows, films

(i) internal means, e.g. staff meetings, notice boards, memoranda.

(j) field days involving inspections of relevant areas, perhaps with key groups.

Handout :

Activities :

Assignments : Participants to identify a specific issue relating to protected area management and develop a public relations programme oriented specifically to the issue.

References :

**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN : VISITORS 16

## Public Relations at the Local Level
## Gaining Support for Conservation

**Objectives :**

To indicate the importance of co-operation with people and to suggest specific ways to foster it.

**Presentation :**

1. One of the major issues facing protected areas in the Pacific is their relations with local people. Too often these are hostile. What are effective means of developing local support?

2. Case study : Select a local situation and discuss.

3. Reasons for local hostility:

   (a) park land may once have been inhabited by people

   (b) local people cannot afford park entry fees

   (c) many jobs go to outsiders

   (d) traditional or ceremonial sites may no longer be accessible

   (e) wildlife may cause crop damage and transmit diseases

   (f) direct benefits of the park are not apparent

   (g) local people are often not consulted in decision making

   (h) loss of traditional rights to use resources in a protected area

4. Suggested local public relations programmes :

   (a) advertise employment vacancies and hire local people if possible.

   (b) develop a communication mechanism to allow local input, e.g. meetings with chiefs or group leaders, problem workshops, management or advisory committees.

   (c) consult local residents on major issues, e.g. boundary changes, planned developments.

(d) sponsor local visit days to demonstrate values and problems of the area and develop pride in the local natural heritage, with special emphasis on influential leaders such as counsellors, politicians, chiefs, elders.

5. Policy suggestions for bringing benefits of protected areas to local people :

(a) employment priority.

(b) sharing of gate revenue, tax on accommodation.

(c) placement of overnight visitor facilities on land adjacent to the park.

(d) provide film shows and education programmes to local schools and clubs.

(e) consider special use permits for occasional harvesting of surplus renewable resources.

(f) ensure that each protected area has a staff member trained in extension services and public relations.

Handouts :

Activities : Examples of the above mentioned problems and solutions can be noted during a field trip to an area.

Assignments :

References :

**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN : VISITORS 17

## Communications

**Objectives :**

To understand the importance and value of good communications and methods to achieve them.

**Presentation :**

1. Definition. Communication is the process of passing facts, advice, opinions, instructions, requests and ideas from one mind to another mind.

2. Poor communications are probably the single most important cause of 'people' problems.

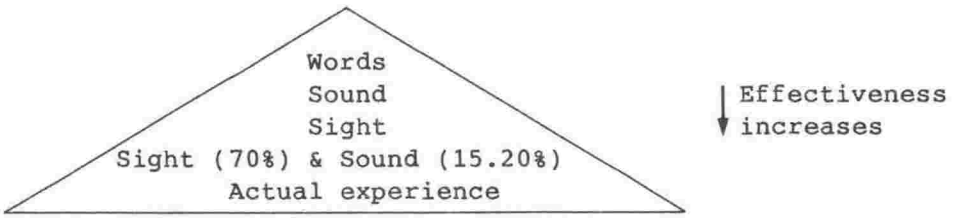
3. Good communications require constant efforts to achieve.

4. In communicating you are trying to share information, ideas, attitudes, through informing, persuading, entertaining.

5. The essence - getting the receiver and sender to 'tune in' together for a particular message.

6. Each communication has an objective.

7. 'Code of learning' concept.




8. Review handout.

Handout : Communications for managers.

Activities : Pass verbal message around large group - does it change?

Assignments :

References :

**Managing Protected Areas in the South Pacific Region - 1987**

**Handout For Lesson : Visitors 17**

## Communications for Managers

Communication is the process of passing of facts, advice, opinions, instructions, requests, ideas, from one MIND to another MIND.

### The Manager and Communication

Communication is an essential aspect of the protected area manager's job and involves receiving information, feelings, thoughts, opinions and knowledge, and passing those same things on to others. It involves communication with workmen, seniors, fellow managers and the public.

### Method of Communication

There are many ways and means of communicating and the two main methods are:

(a) by sound
- *speech
- *drums
- *morse code

(b) by sight
- *reflecting mirrors
- *hand gestures
- *flags
- *written words, drawings, signs.

The two most widely used methods are speech and written words. Radio and newspapers are good examples of these methods. In both cases WORDS are the vehicle of communication.

Words are trick things - they can mean one thing to one person, another to someone else: Remember that the 500 most used words in the English language are recorded in the Oxford Dictionary as each having an average of 28 meanings.

The person initiating (starting), the communication should use words known to the receiver: e.g. the term "epistanis" is alright when a Doctor is communicating with another Doctor, but when he is communicating with us the words "bleeding nose" should be used.

### Receiving the message

Take time to understand
Ask yourself - what is the communication meant to convey
NOT - what do I think it should mean

Managers are receivers (or listeners) of communications, check to see if you are following the pattern mentioned above. One study of a group of managers reported that their time was spent:

45% listening
30% talking
16% reading
9% writing

**Kinds of Communication**

Here we have a further division, communications can be :

* Formal
* Informal

**Formal Communication**

This is:

Planned
Official - has authority
Purposeful (done with a purpose)

The main forms are:

Official letters and memoranda
Minutes and reports
Circulars
Statistics
Manuals, official instructions

Its advantages are:

Accuracy
Provides a clear record
Represents formal authority and responsibility

Its weaknesses are:

Slow in transit (going around)
Often lacks interest
Often contains too many official terms and too much official language
Often fails to give a full sense of what is intended

**Informal Communication**

In a lot of organisations, most of the information that is used in decision-making is informally transmitted.

**Informal Communication is:**

At the lowest level - gossip and scandal
At the normal level - grape vine (coconut news)

Never underestimate the efficiency of the "grape vine" in transmitting - and distorting (becoming incorrect) - information

Characteristics of informal communications are:

It is swift
It is usually interesting
It often promotes morale

its dangers are:

Often misinformed
Often inaccurate
Cuts across lines of authority

**Barriers to Effective Communications**

Some of the things that prevent good communications are:

(a) Language

The extreme being of foreign language not known to the receiver

Technical terms: These are terms known only to those in the organisation, e.g. All forestry staff know that D.B.H. stands for diameter at breast height but someone outside the Forestry Division would most likely not understand.

(b) Geographical Distance

Sometimes difficult to ask for clarification.

(c) Pressure of Work

Often communications are only glanced at and their meaning not fully appreciated until too late.

(d) The "Frame of Reference"

Sometimes the receiver of a message will without realising it, re-interpret the meaning of a message to fit their own experieince or conditions. These may often differ from the senders wishes.

There are other barriers to the communications process which are just as important as those listed above.

Managers tend to let through what they want to thereby making poor communications. The result is misunderstanding, lack of motivation, insecurity, conflict and inability to take effective action. Halfway communications get halfway results.

Check to see if your communications are effective.

**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN : VISITORS 18

## Public Speaking

**Objectives :**

To teach the skills required for competent public speaking.

**Presentation :**

1. Review handout.

2. Students to prepare and deliver short speeches to the class. Evaluate.

3. If possible arrange to visit school or arrange audience to practice on.

4. If possible arrange for a public speaker who is known to be very good to speak to the group.

Handout : Public Speaking

Activities :

Assignments :

References :

**Managing Protected Areas in the South Pacific Region - 1987**

**Handout for Lesson : Visitors 18**

## Public Speaking

Public Speaking is a very useful ability to acquire, it is also very easy. The key to effective speaking is - KNOWING YOUR SUBJECT.

**Important Aspects to Note:**

1. You will gain confidence through your knowledge.
2. Don't be nervous, teach yourself to relax.
3. Be yourself, be human.
4. Be enthusiastic.
5. Watch mannerisms.
6. Don't hurry.
7. Look the part, look right (not sloppy).
8. Be punctual, start on time.
9. Vary your voice.
10. No slang.
11. Use simple words.
12. Speak to the back of the room and maintain eye contact with the whole group.
13. You, we, I (refer in that order).
14. Know your audience: their interest, make up, level of knowledge, age or whatever you can.
15. If appropriate try and involve the audience.

**Remember**

You are imparting information, persuading and/or inspiring your audience.

**Speech**

When preparing your speech it is a useful techinque to divide it into steps and then consider each step carefully.

Once you know what topic you are to talk on, think about it for a few days, research the subject and ask questions.

**The main steps of a speech are:**

* The opening
* Creation of interest
* Creation of confidence
* Body of the speech
* The close

Write down the main facts of each step, trim them to those most important.

Devise a good opening sentence for each step. Elaborate on it, use:

Statistics
Evidence
Historical facts
Anecdotes
Humorous stores
Analogies
Quotations
Poems
Local colour
Facts

to help illustrate and prove your point.

**These steps in more detail become:**

The Opening :

* Start low key
* No apologies
* Perhaps a question opening?
* Humour - but be careful
* Local colour
* History
* Facts

Creating Interest:

* A yes or no response in the listener to the speaker
* 'Off' the record comments.
* Exhibits.
* What interests you.

Creating Confidence:

* Refer to depth of your knowledge or sources (but don't get big headed)
* 'Why do you know what you are talking about?'

The Body of the Speech:

* Divide your main theme into several steps, then treat each step as a speech itself.
* Don't try to get too many points across. Don't swamp the audience.

* Opening - middle - end (which leads into next point)
* Create an interesting and logical flow of ideas.

**Remember:**

* You must tell your audience something.
* What do you want to tell them? OR
* What do the audience want to hear?

The Closing

Don't give an early signal, try -

Surprise
A summary
A question
A quote
A story
Ask for action
Ask for help
Appeal for help

**Further points to consider:**

length of Speech:

* Keep to your allotted time
* Watch and judge your audience.
* Watch for distress signals or loss of interest.

Three Speech types:

* One read out
* An impromptu one
* One prepared and spoken from notes

Note Cards:

* These are a good idea, in fact are essential for a good speech.
* A suggested style is:

Card about 6" x 4" (150mm x 100mm)

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Main Sentence: Exhibits No.

Special Points:

Aids & Exhibits:

These are a good idea to help stimulate interest -

* Charts
* Maps
* Photos
* Slides
* Films
* Blackboard
* Items of Interest (e.g. a rock in a geology talk)

These must be properly thought out, prepared and presented, be careful not to distract your audience from the rest of your talk by passing exhibits around though. Make sure the exhibits relate to and give support to the content of your talk.

**To Summaries:**

Know your subject.
Think it out.
Prepare it thoroughly.
Relax, be yourself.
AND, take the opportunity to practice, practice, practice.

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# LESSON PLAN : VISITORS 19

## Report Writing for Managers

**Objective :**

To consider aspects of good report writing.

**Presentation :**

1. Stress the absolute necessity of writing good reports. Feedback on former students shows this to be a major problem area and a concern of sponsoring agencies.

2. The only way to learn to write reports is to write them. Preparing reports is meant to provide this practice. In addition to preparing these reports, students must know the formats of incident, routine, annual, information, and survey reports.

3. Discuss handout "Some Tips on Report Writing", and apply its guidelines to subsequent reports.

Handout :

Activities :

Assignments :

References :

**Managing Protected Areas in the South Pacific Region**

**Handout for Lesson : Visitors 19**

**Some Tips on Report Writing**

1. Who will read it? A report is not a literary effort. Its purpose is to communicate ideas, facts and opinions. Outline the points and then start writing.

2. Get attention quickly. "Background material" on the first page is usually well known. Boil it down or leave it out. State the report's purpose in a few words, itemise, and then come to grips with the facts.

3. Make it objective. People are seldom interested in what we think, and would rather read what we know. Don't write reports with the idea of making an impression. Let the report sell itself.

4. Practice restraint. Your report need not be stuffy, but it should take a conservative approach to the problem under consideration. Avoid extravagent statements, unless they are supported by facts.

5. Spell it out. The typical executive is too busy to take time digging out pertinent information from a deluge of words. List facts in 1-2-3 order, set off with headings.

6. Document the report. One of the best ways to make a report inviting to read is to use attachments rather than incorporating the exhibits in the report itself. Refer to exhibits by number for easy reference.

7. Break it up. Long paragraphs are poison. Hold them down to a few lines, and provide key paragraphs so that the reader will know what it is all about. Indent and underscore important points - important to the reader, that is, not just to you.

8. Clinch each important point. To make doubly sure the reader does not "slide off", indent and underscore key points. Make sure they are clearly stated.

9. Give it plenty of air. A good report invites reading. Don't crowd a lot of words into a little space. Leave margins on the right for notations. Make plenty of copies.

10. Button it up. Conclude the report with a brief summary of its points, and if desirable offer recommendations. If they are rejected don't let it throw you. Only those responsible for the entire operation have the overall perspective needed to make important policy decisions.

**Reference:**

**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN : VISITORS 20

## Writing Press Releases

**Objectives :**

To give students an example of a press release and practice in writing a press statement as an exercise in public relations.

**Presentation :**

1. The abilty to prepare news releases for the local press is an essential skill. News releases must be concise and factual statements with the most important material placed at the beginning. The least important paragraphs at the end.

2. As a guideline for writing a press release, keep in mind the following questions:

   * Who? The person, group, or organisation that is the subject of the story.

   * What? The event that is the subject of the story.

   * Where? The location of the event.

   * When? The time of the event.

   * Why? The reason for the event.

   * How? The way the event came about.

3. Press releases should be short and to the point. Too long and they won't be read. Good photographs are usually eye catching and helpful.

4. Give examples of good releases.

Handout :

Activites :

Assignments : this lecture is primarily a practical class exercise. After the above introduction, students should be asked to prepare hypothetical press releases on topics such as a recent trip, a special evening, etc. The instructor should mark these exercises and return them with comments.

References :

**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN : VISITORS 21

## Radio Interviews

**Objective :**

To prepare students for radio interviews.

**Presentation :**

1. Radio is an important medium in the South Pacific and an ideal way to get your message across to the public. It is therefore vital that you learn to use it to best effect.

2. The opening paragraphs of your talk are vital, you must catch the listeners attention on the first few seconds.

3. Interest and enthusiasm are infectious, keep your tone bright.

4. Relax, speak conversationally.

5. Only try and get a few main points across.

6. Review handout.

Handout : Preparing for a radio interview.

Activities : Try to visit a local radio station, talk with an announcer. Practice on tape with student interviewer. Invite a radio announcer along to talk to the group.

Assignments :

References :

**Managing Protected Areas in the South Pacific Region - 1987**

**Handout for Lesson : Visitors 21**

## Preparing for a Radio Interview

Make contact with your local radio station(s).

Find out the name of the senior person involved with 'talk' programmes. Speak directly to them and present your idea for an interview clearly and simply.

Give them a couple of 'news angles' i.e. items that will interest large numbers of people. News is not all of a political nature - lifestyle material is also very important. If you do not succeed first time, do follow up. Give your contact a ring from time to time to keep them in touch with what you are doing. Put them on the mailing list for newsletters, brochures etc.

Once you have arranged an interview, do your homework. Find out who the listening audience is: is it mostly young people, older people, a mixture across the board, and tailor your ideas to suit them. Ask what the interviewers' style is and the format of the radio station. Do they have long segments of talk? Will the interview be only 2 minutes or 5 minutes? Know what you want to say. Do not try to fit everything into a 3 minute interview. Select instead 2 or 3 salient points and cncentrate on them. Ask in advance how long the interview will be and ask what sort of questions you will be asked (it is most unlikely you will be shown the question line but you should be given some idea of what style the interview will take).

During the interview: RELAX, RELAX, RELAX, RELAX, RELAX. Do not take on an imposing or esoteric pose but be warm and friendly. It will show in your voice. Do not use big words but ordinary everyday language. You are there to communicate information to the listeners so it is important you do not alienate them by your attitude.

Answer the questions and do not be evasive. If you do not know an answer, say so, rather than stumbling to get out of it. If you are riled, do not lose your temper under any circumstances. If you feel yourself getting angry/nervous, lean on the desk in front of you and drop your shoulders forward rather than sitting up poker straight. Do not be afraid to ask for a drink of water.

Remove yourself mentally from the studio. Imagine you are telling your best friend this story over a cup of tea in your own kitchen. Remember, you are there to be intereviewed because you are someone who KNOWS about this subject. If you are familiar with your subject, you hve nothing to worry about. Do not go armed with dozens of reference files but by all means take reference NOTES to jolt you memory. Two or three words is usually enough to remind you what you want to say. Do not read from these notes either but rather ad lib in your own words. Reading sounds like reading on radio and you will communicate better if you are just yourself, act naturally and ENJOY yourself.

**Managing Protected Areas in the South Pacific Region - 1987**

# LESSON PLAN : FACILITIES 1

## Site Selection

**Objective :**

To show the various considerations in evaluating a site for a facility.

**Presentation :**

1. What factors should be considered in evaluating a site for a facility in a protected area? Many mistakes have been made in the past. Not every site is ideal, good sites are relatively rare.

2. The main considerations in selecting a facility site are (a) convenience for the user, (b) harmony with the setting, (c) manageability and (d) minimising current and future environment impact.

3. Discuss each point of handout, "Field Guide for Site Selection".

Handout : Field guide for site selection.

Activities :

Assignments : This lesson should be followed by a field exercise in which students evaluate existing sites, using the criteria of the handout and propose new sites for development.

References : Design with Nature, Ian McHarg 1969.
American Museum of Natural History.

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**Handout for Lesson : Facilities 1**

## Field Guide For Site Selection

Many factors must be considered in selecting sites for facilities in protected areas. A good site should:

(a) be convenient for users
(b) be harmonious with the environment, and
(c) be easy to manage.

This field guide presents some information that must be collected to satisfy these goals. Selecting each site will be different, however, and not all of the information specified below must be gathered for every site.

Some data is usually available on every potential site. Gather all you can in the office before starting expensive field surveys. Check maps of soils, vegetation, and geological features, aerial photographs, climate data, and relevant reports.

Use sketch maps to show special features and problem areas. A good base map is essential.

### Information Required in Selecting Sites

1. General Location : legal description, land ownership status, size, other present uses, e.g. flight paths, mining rights.

2. Topography : slope and aspect, nature of terrain (rolling, steep, level), elevation, soil type, size of useable area, problem sites (rock outcrops, swamps, likely erosion etc.)

3. Climate : temperatures, humidities, prevailing winds, aspect, rainfall, distribution and amounts, sunlight and shade.

4. Water : permanent and seasonal sources, quality, lakes, rivers, boreholes, nuisance factors insects, health, wildlife, limitations, flooding, availability.

5. Vegetative cover : species, height, age, condition, shade, planting needed, hazards (windfall, fire), habitat styles.

6. Site enhancing factors : (a) wildlife (species and abundance, migration routes, critical habitats, possible conflicts), (b) natural features (view, scenery, unique features), (c) recreational features (fishing, privacy, present uses, adjoining developments, estimated site capacity).

7. Accessibility : distance from towns, roads, access conditions, airstrips, new developments.

8. Constraints and hazards : insects, dust, wind, wildlife, steep slopes, fast water, over mature trees, fire, noise, traffic, poisonous species.

9. Other uses : alternative or incompatible uses.

10. Development and management factors : availability of local building materials, adequacy of water supply, proximity to local population.

11. Other : add remarks on other points not mentioned above.

Evaluate each item of information and measure it against the proposed requirements for the site.

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# LESSON PLAN : FACILITIES 2

## Landscape Awareness

**Objective :**

To create an awareness of the basic concepts, elements and principles employed in landscape management.

**Presentation :**

1. 87% of man's perception is based on sight.

2. Most people are strongly influenced by what they see, we therefore need to consider the visual quality of landscapes.

3. Basic concepts:

   (i) The character of a landscape is the overall impression created by the combination of its features. Each area, regardless of size, has its own character (i.e. Macro and Micro Landscapes).

   (ii) Variety in the landscape is desirable. Landscapes rich in variety are usually more appealing than monotonous ones.

4. Main Elements of the landscape:

   (i) Form, is its shape.

   (ii) Line, is a direction (anything in a row or junction, for example between water and land).

   (iii) Colour has emotional impact. It has the ability to unite or disrupt.

   (iv) Texture, an impression formed of the surfaces you're looking at.

   (v) Scale - affects the relationship of everything you see.

5. Basic Principles.

   Landscape is an arrangement of the main elements (form, line, colour, texture) according to these principles.

   (i) Contrast, between the elements of the landscape.

   (ii) Sequence (leads the eye e.g. a row of trees), relationship of one space following on from another.

   (iii) Axis (a main line of direction (emphasis) ).

   (iv) Convergence (where major landforms focus attention on one point).

(v) Co-dominance (where landforms complement each other in size and dominance, not one element being dominant).

(vi) Framing (like the frame of a picture, it directs the viewer's attention).

6. Variable factors.

These factors affect how the main elements (form, line, colour and texture) are seen.

(i) motion
(ii) light
(iii) atmosphere conditions
(iv) season
(v) distance
(vi) observer position
(vii) scale
(viii) time

Having studied and analysed the landscape you are then more aware and sensitive, and therefore more able to use that information and understanding to ensure that the design of any structure or development you wish to introduce into that landscape will conform with it.

Handout :

Activities :

Assignments :

References : National Forest Landscape Managment (Volume 1) 1973 Forest Service, US Dept., Agriculture Handbok No. 434.

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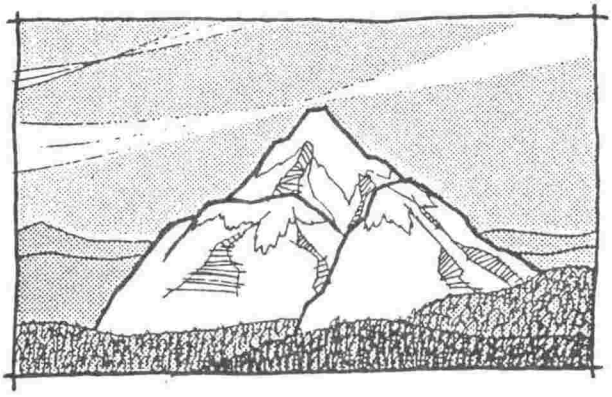
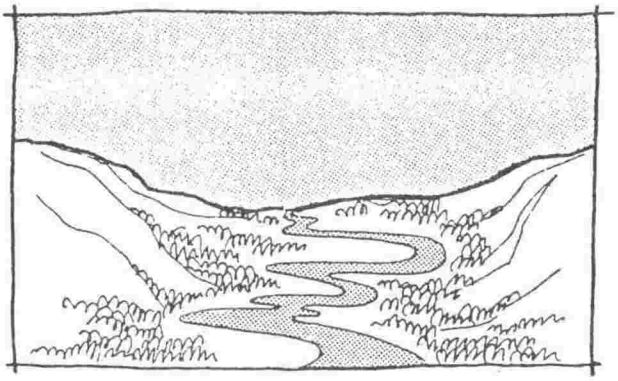
**Handout for Lesson : Facilities 2**

**Illustrations of Landscape Elements, Variables & Principle Elements**

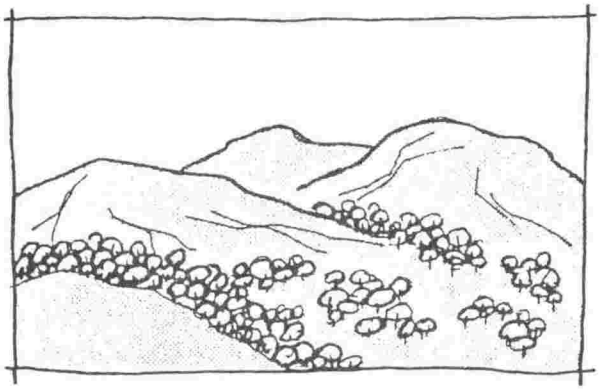
*Form*



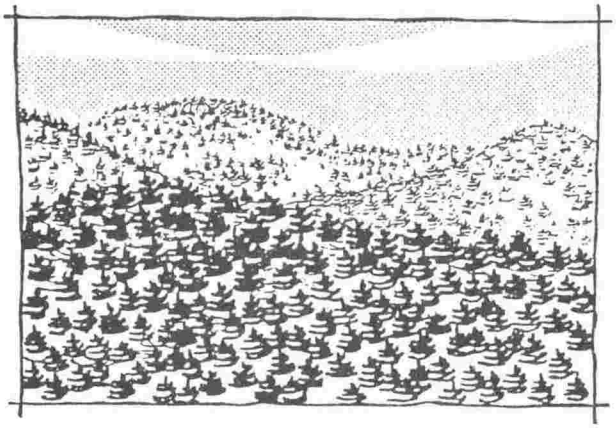
*Line*



*Color*



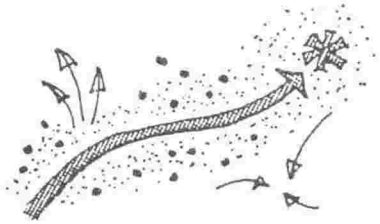
*Texture*



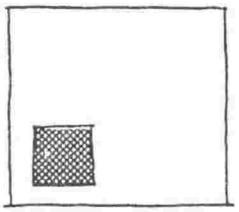
Variables

Principles

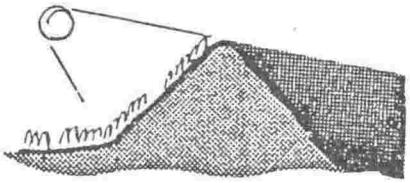
*Motion*



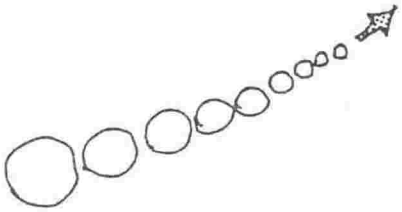
*Contrast*



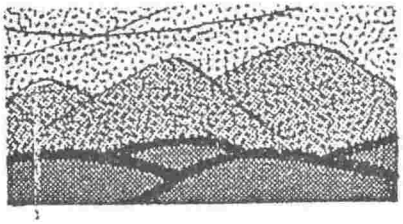
*Light*



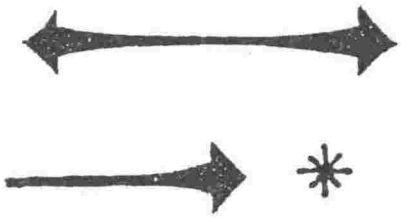
*Sequence*



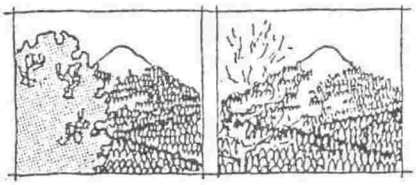
*Atmospheric Conditions*



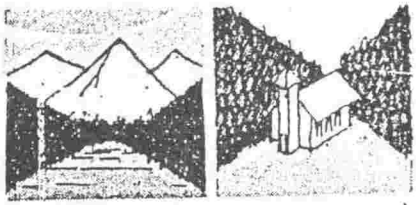
*Axis*



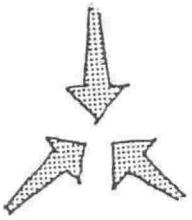
*Season*



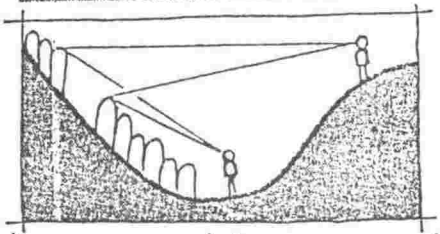
*Distance*



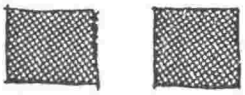
*Convergence*



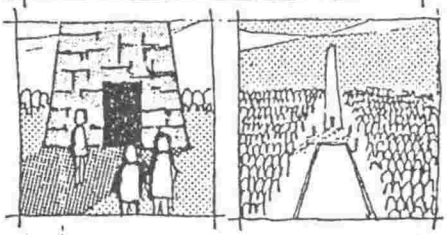
*Observer Position*



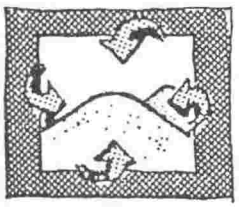
*Codominance*



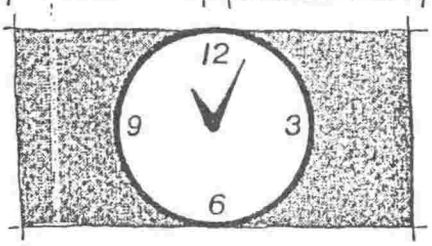
*Scale*



*framing*



*Time*



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# LESSON PLAN : FACILITIES 3

## Facility Choices, Principles and Designs

**Objectives :**

To illustrate the range of facilities required in protected areas and present guidelines on their location, construction and design.

**Presentation :**

1. Principles of facility provision for protected areas.

   - Build only facilities essential to the use and operation of the area.

   - Design only high quality facilities, balancing human use with minimal sacrifice of natural values.

   - Ensure that each facility conforms with established objectives (I.E. is consistent with the management plan, where one exists)

   - Design facilities which require minimum maintenance.

2. Review the range of facilities found in South Pacific protected areas.

   - Operational facilities : headquarters, administrative staff housing, maintenance facilities and work compounds; entry gates; boundaries, barriers; fences, substations; utilities (water, sewage, waste, power); circulation and access (roads trails, airstrips); research stations; radio communications equipment.

   - Visitor facilities : accommodation (types, styles, indoor, outdoor); information and interpretation facilities; recreational facilities, (shelters, toilets, picnic tables, tracks, signs).

3. Distribute and discuss handout. "Checklist for Evaluating Facility Design" and "Structures in the Landscape".

Handout : Checklist for Evaluating Facility Design Structures in the Landscape.

Activities : Give a slide presentation on the range of facilities in related protected areas.

Assignment :

References :

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## Handout For Lesson 3

## Checklist for Evaluating Facility Design

Review the following design guidelines when evaluating specific facility proposals.

1. Everything must have a purpose (relation of park to surroundings, relation of facility to use area and zones, relation of facilities in the site, relation of facility to objectives of park master plan). Eliminate superfluous elements. Where feasible locate facilities on perimeters of outside the area.

2. Design for people. Recognise the optimal use limits of the site, as well as its safety and convenience factors.

3. Design within the constraints of the resources. Recognise the optimal environmental capacity of the site and the facility's potential impacts. Use the facility as a positive control in directing use; allow only day-use facilities in some areas. Consider animal habitats and movements.

4. Satisfy both form and function. Balance economic, human, and resource values. Recognise design elements of exposure, dominance, texture, theme, form and colour. Provide appropriate local structural materials and planting. Design for quality, utility, simplicity.

5. Provide for meaningful experience, with facilities suited to the function of the place, its scale, and its users.

6. Recognise technical requirements (size, quantity, standards, orientation to weather and sun, convenience of access, utility costs).

7. Ensure efficient and safe operating use. When possible, design for year-round use.

8. Investigate long-term implications of facilities, with attention to changing demands and technology and continuing maintenance. Discourage undesirable uses.

9. Always start with the large scale, and work down to the small.

10. Consider its operation - Design with the constraints of available funds and staff to operate and maintain it.

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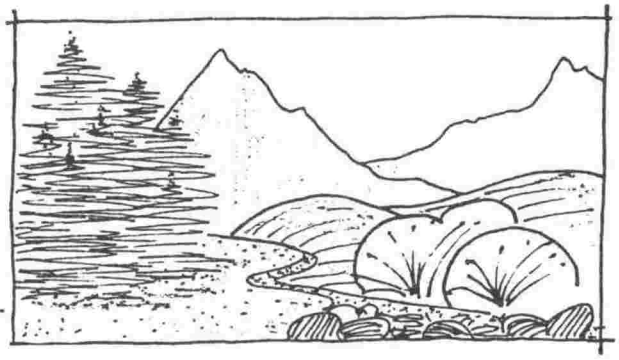
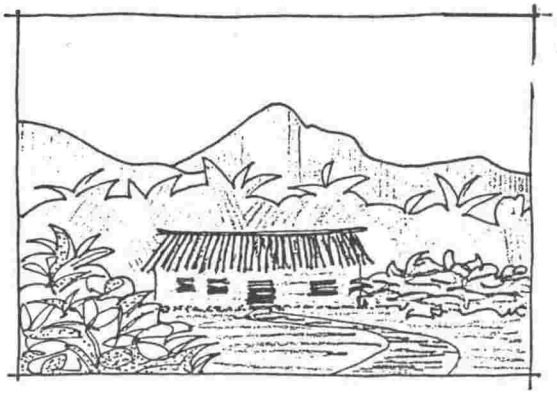
**Handout for Lesson : Facilities 3**

## Structures in the Landscape

Structures can be made to either blend in or contrast with the landscape. As a general rule in natural landscapes it is more appropriate to blend structures into their environment.

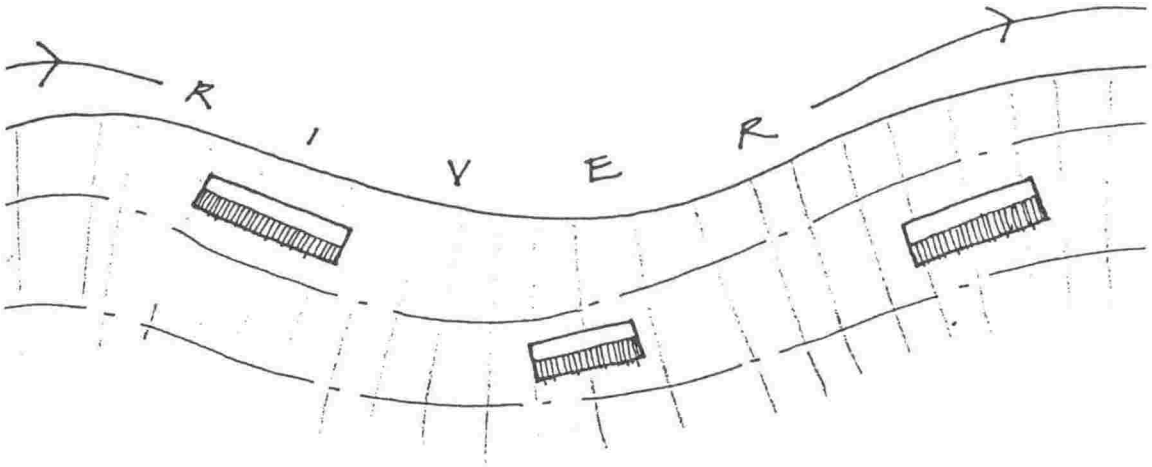
Note the characteristic elements of the landscape and work with them. Form, line, colour and texture can dictate the style and siting of structures.





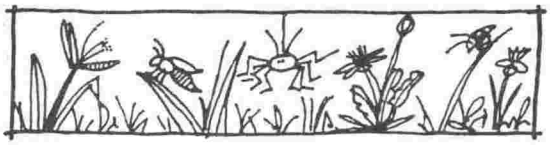
Buildings sited below the skyline sit into the landscape and become a part of that landscape. Planting and/or landform can form the backdrop to structures.

Structures should run with the lie of the land. They should follow around contours, for example adjacent to rivers.

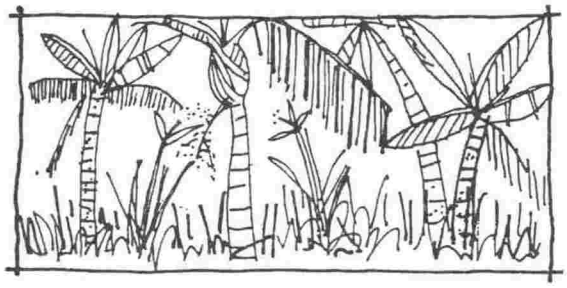


The method of transport effects one's experience of the landscape.....

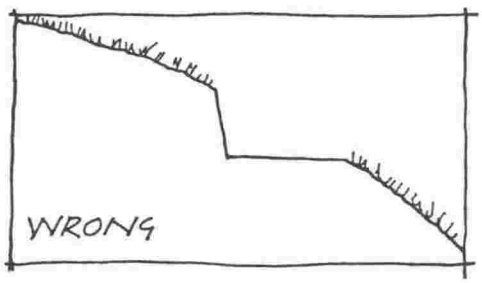
When walking detail is seen and experienced.



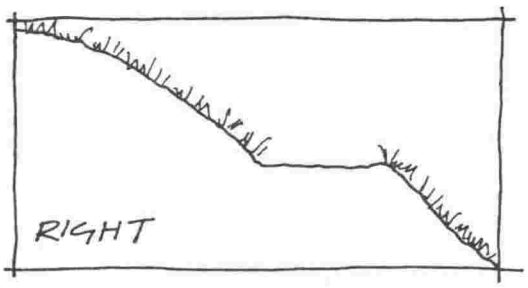
From a car the level of detail is reduced and the length of time to view is greatly reduced.



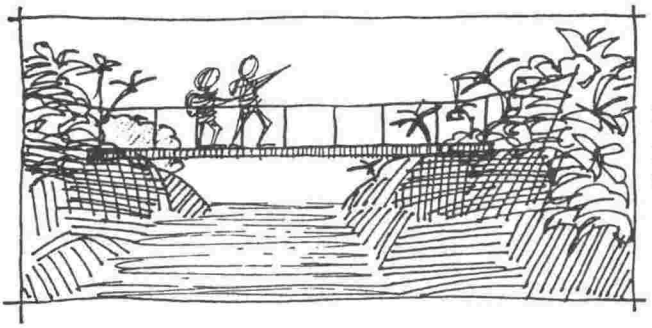
It is important to integrate roads and tracks into the landscape making them look as natural as possible. Cuts into hillsides must be treated very carefully.




Avoid steep sharp cuts which will be hard to revegetate and visible at a long distance.

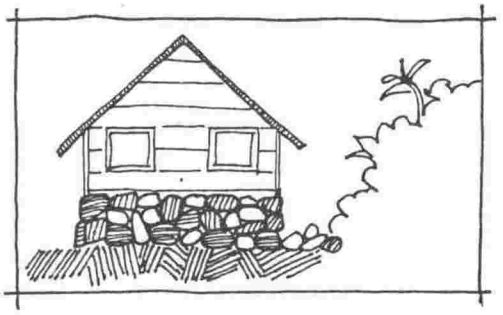



Slope cuts off to a stable angle to repose. They will be less prone to erosion, easily replanted and mould into the landscape.



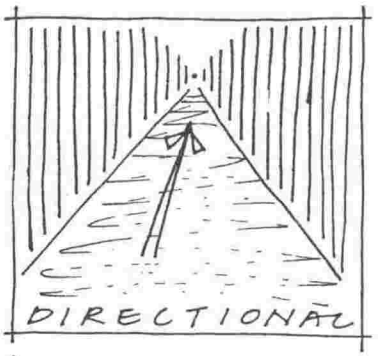
Bridges should cross in natural places and start and finish well back on the river bank.

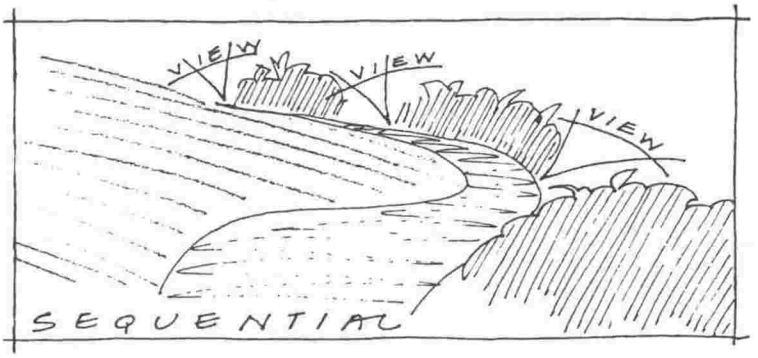
Use local materials to help integrate structures into the landscape, e.g. stone, driftwood. Balance the use of structurally 'light' to 'heavy' members i.e. stone below and wood above, this will help to site the structure down into the landscape in a natural way.



**Roads**

Roads and tracks can be positioned to provide a variety of experiences thus adding to the interest of the journey.





also
open-ness : enclosure
height : lowness
panorama : framed view

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# LESSON PLAN : FACILITIES 4

## Tracks, Signs

**Objectives :**

To consider the function and design of specific park facilities.

**Presentation :**

1. Review Handout on specific facilities.

2. Give slide presentation covering points discussed in handout.

3. Arrange field trip and/or practical work on each subject - e.g. track location, design construction, sign design, construction, erection.

Handout : 1. Tracks - design, construction and maintenance.
2. Signs.

Activities :

Assignments :

References : N.S.W. National Parks & Wildlife Service (Australia) Walking track manual.

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**Handout (a) for Lesson : Facilities 4**

## Tracks - Design, Construction and Maintenance

### Why Tracks ?

1. Provide for a level of recreational experience that is not obtainable any other way. This is particularly appropriate to the National Park and protected area setting.

2. They service the need of the public.

3. They control and allow proper management of an area.

   (a) to protect the resource
   (b) for public safety
   (c) improve public relations, and
   (d) co-ordinate other uses.

4. Provide access for the public to use and enjoy an area.

5. Allow the public access where other forms of access could be detrimental.

6. Control incompatible uses (Pedestrian/Horses/Cars/Motorcycles)

7. Direct use away from environmentally sensitive areas.

8. Rationalise existing patterns of walking track access.

Tracks therefore are an important and valuable amenity in our National Parks and Reserves to both the visitor and the manager. However, to achieve our objective we must design, construct and maintain them to a high standard.

### Design

First, some basic questions must be answered .....

1. What purpose will the tracks serve?

   - access between two places e.g. carpark and picnic area or view point.

   - a scenic walk, purely for pleasure.

   - an education walk (nature walk)

2. Who will use it?

   - the old, the young, the disabled, family groups, school groups, individuals, small or large groups, ..... this will help determine the standard of your track formation.

3. What type of standard?

- A walk ... a well constructed, easily graded and formed path.

- A track ... well marked and easily negotiated, but not to the same high standard as a walk.

- A route ... a simple cut and marked line.

A track is meant to be a foot-path in a near natural environment, it is therefore most desirable that it is designed to fit in with the landscape and to avoid the features which are incompatible.

Specific location criteria.

The track should be located to :

- fit the land, i.e. recognise and respond to the natural lines of the landscape.

- prevent monotony and provide seclusion by curving with the land rather than cutting across it, and having a gently undulating grade as opposed to a long uniform grade.

- complement the current or planned use of the land.

- avoid, or lead users away from heavily used areas or those where a potential concentration would be undesirable.

- avoid areas of unstable soil or geology.

- display a great variety of natural beauty, scenic views, points of interest or other attractions.

- blend with the terrain by taking full advantage of the natural topography and vegetation, and harmonize with the environment.

- provide the most favourable and impressive approach to special scenic attractions.

- take advantage of natural crossings of small streams, or if a bridge is required it should be sited and constructed to best fit in with the surrounding environment.

- take advantage of opportunities to provide drinking water if considered necessary.

- enable proper and clear signposting.

**Construction :**

The track must be designed, constructed and maintained so as to have as little impact as possible on the environment.

It must provide for protection of the adjoining resources, safety of the user and consideration of volume of traffic.

Alignment : It should fit the ground, sharp angular turns that conflict with the topography should be avoided, so should long straight stretches.

: It sould be located to allow water to drain away easily. (Running water seriously deteriorates the track).

: Zig-zag's generally cause problems and are best avoided. Users usually short-cut them, trampling vegetation and causing water run-off and erosion.

Grade : The acceptable grade depends on : the type of track wanted, who will use it, its purpose, the topography. Avoid steep grades.

Next, have a close look at the land, understand it ....

1. Topography

- may determine standard
- will determine construction methods
- will affect cost

2. Character of area

- tall forest, rocky, wet, dry, open space or confined
- it is something you must observe and feel.
- it will determine the design (alignment, grade, width, etc.)

Points to consider:

Positive values :

a. Historic sites
b. Water falls
c. Mountain peaks
d. Old house sites
e. Special vistas
f. Views of lakes or streams
g. Unusual species of trees or plants (be careful here)
h. Existing tracks
i. Trees of particular interest

Negative values :

a. Safety of users
b. Damage to the resources
c. Construction problems
d. Rights-of-way

e. Maintenance problems
f. Regulation of use problems
g. Clean up problems
h. Disturbance of ecology
i. Steep grades
j. Conflicting uses

All values should be considered whether positive or negative, and a good technique is to plot them on a map, this will enable you to establish a general line.

Also, remember to consider what other facilities may be required, shelters, toilets, rubbish tins, etc.

Natural vegetation, topography, or plants should be used to screen any objectionable or undesirable features or activities from the view of the user.

Once a 'desirable' grade is determined, the practical problems must be considered as they will be the constraints on the construction.

- Soil structure and ground cover, are they susceptible to erosion.

- how much water run-off is expected.

Steps are best avoided if possible, they are more tiring to walk up and down and the water tends to scour as it drops over each step. If they are found necessary then the distance covered by the steps must be minimal and each step should not be more than 6 inches high. The face of the step should be supported, use either stone or wood depending on the area, and the tread reinforced.

**Tread :**

The standard and surface of the tread will depend on it's use, where a track goes through a forest constant pounding of the surface by large numbers of people will compact the soil and expose the tree roots. Not only will people then trip over them but it will affect the water and air supply to the tree, perhaps eventually killing it. Depending on how fragile the soil and the vegetation is determines the way in which the surface is treated.

Remember we are building a track for people to walk along and to enjoy, the standard of the tread will go a long way towards a persons enjoyment of it.

On flat areas water puddles which turn to mud and then lead to other problems (when people try to avoid them) must be watched. The track can be built up but you should still allow for the natural drainage by installing culverts.

On steep areas the track will need to be 'benched' or excavated to form a flat surface on which to walk, this bench should be constructed so as to allow adequate surface run-off. The edge of the track on unstable areas should be reinforced to stop it breaking away under the weight of the user. Small logs are adequate for this as they will last long enough to allow the natural vegetation to establish and so take over the stabilising role.

In general :

- construct the tread as level as possible
- avoid obstacles
- it should not be too wide, otherwise it will encourage conflicting uses like motorcycles, jeeps or horses.
- when it is necessary to reinforce the tread, use 'local' materials as far as possible, ones that fit in with the landscape.
- on tracks with a high usage it will almost certainly require a reinforced surface, road or river metal is probably the best, however, wooden 'boardwalks' are also very good, particularly over very wet or swampy ground.

**Drainage :**

This is most important, running water is a major cause of erosion and track deterioration.

On sidehill sections the tread should be outsloped although on some sections an inside drain will be needed to cut off surface water.

Dips in the grade and water bars can be used on long stretches to divert the water off the track. This should be done before the water gathers up speed and starts damaging the track.

Swamps should not be drained but the track built over them and the natural water flow left unaltered.

Stepping stones made of local rock are useful for crossings at small streams.

**Clearing :**

The width and height of clearings should be such that it allows free passage, even in the rain when the weight of the water pushes the foliage down.

Clearing is normally widest at the ground with the branches arching overhead.

Ground clearing should be selective, cutting out the larger shrubs and leaving those that do not grow big enough to cause a nuisance.

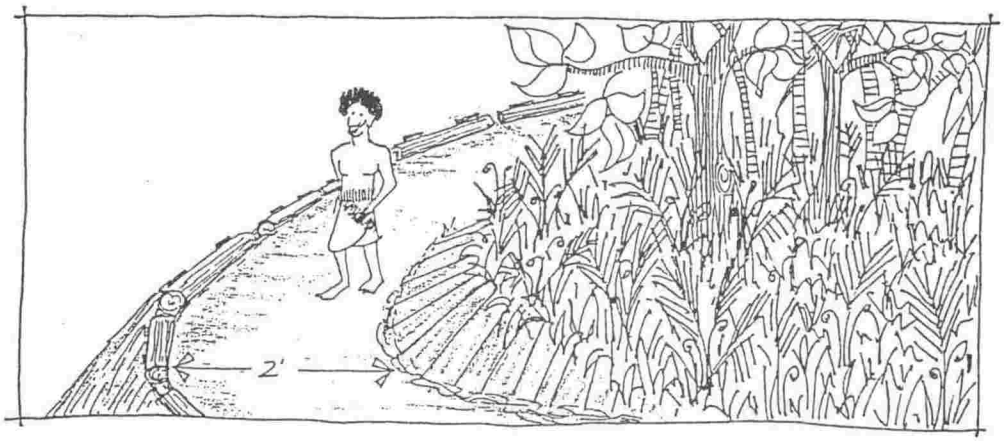
A good rule is to stand in the midst of the track and out-stretch your arms, there should be a small clearance between the tip of your fingers and any vegetation.

**Maintenance :**

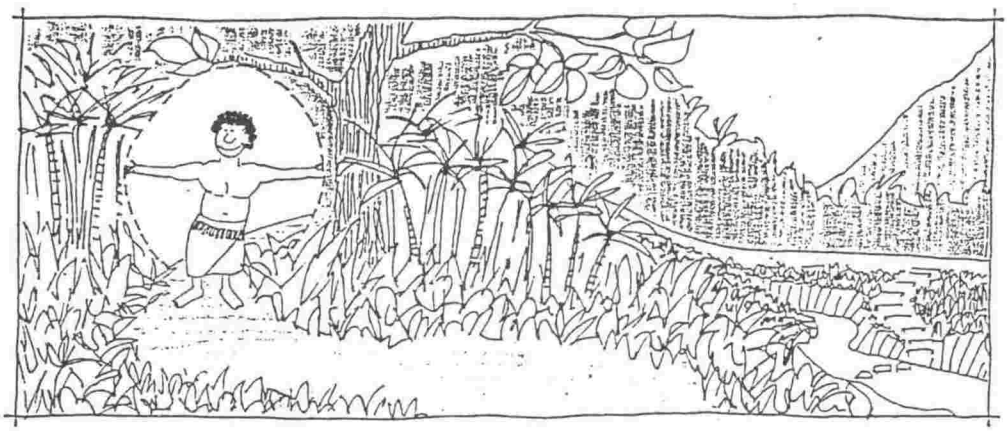
Once a track has been built it will need regular maintenance. Drainage is of particular importance, and all drains must be checked and cleaned regularly. When you make your inspection, look out for -

1. Drainage problems
2. Trees fallen over the track
3. Any overhanging vegetation
4. Any damage to the track, slips, erosion
5. Any damage to the bridges, are they safe?
6. Any reason they may 'lose' people (missing track markers)

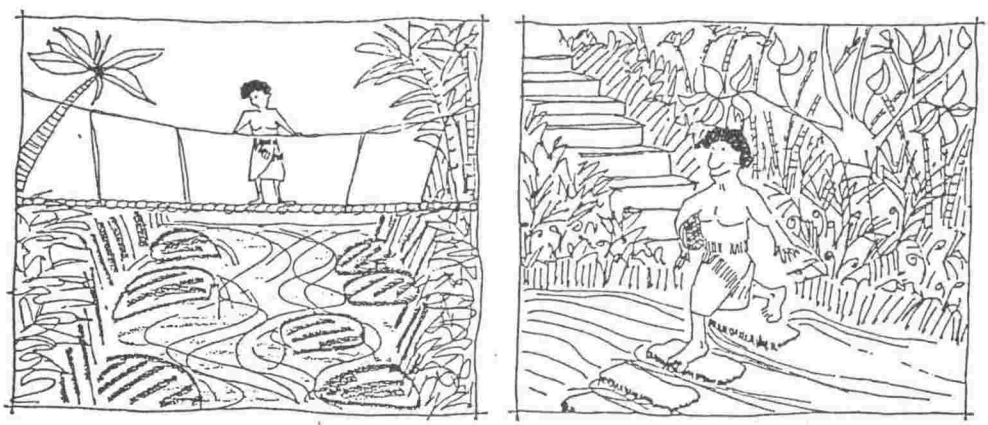
If a track cannot be maintained properly, then it shouldn't exist.....




Allow plenty of clearance around the track - but not too much - Curve the track around to link up the points of interest.



It may be necessary to strengthen the edge.



Stepping stones or bridges can make the walk easier, safer and more interesting

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**Handout (b) for Lesson : Facilities 4**

## Signs

Signs are a link between you, someone else and the environment you share. They create an impression, their design, construction and placement are therefore most important.

1. Signs locate, inform and direct. They help people relate to a particular place and give them security to move about.

2. Signs do not always need to be written (consider the use of a picture).

3. Before deciding on a sign ask yourself -

   - Can you give the message without a sign?
   - Who will read the sign?
   - What should it say to them?
   - How can it be appropriate to the environment?
   - How can it best enhance the experience?

4. The need for a signs heirarchy e.g.

   - Access
   - Entrance signs
   - Directional signs
   - Informative signs
   - Interpretative signs and displays
   - Other (instructions, regulations, etc.)

5. The need for a sign plan and index.

6. Colour, line, texture, shape and scale are important if the sign is to be in sympathy with its surroundings.

7. The colour of a sign should be compatible with the main background colours without losing definition of its form.

8. Lettering - type, size, colour, spacing, capitals/lower case.

9. Use of logo, maps, illustrations, etc.

10. Construction methods.

    - Routed, painted, casting, metal photo, silkscreen, applied (cut out letters stuck on), laminated and encapsulated (fibreglass type techniques).

11. Finishes

- Paint, stain, unpainted.

12. Erection

- The support structure is a part of the sign and must be designed and integrated with it.

- Location is very important, consider visibility, viewpoint, background, height and its becoming overgrown.

13. Maintenance

- Is essential, it is also one of the best ways of combating vandalism.

Handout : Sign design information.

Activities :

Assignments :

References : 'Signs in New Zealand Parks and Reserves' NZ Lands and Survey Dept.

'Creative Forestry' 'Landscape Section' New Zealand Forest Service.

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**Handout for Lesson : Facilities 4**

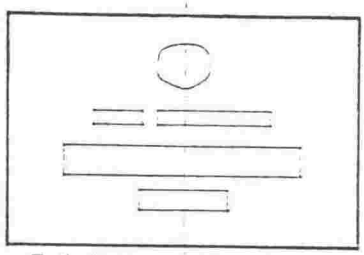
**Signs**

# Asymmetrical and Symmetrical Layouts

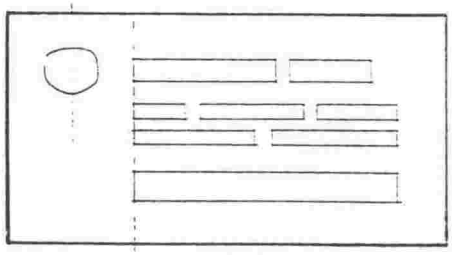
Correct layout of text, symbols, and diagrams within the sign area is essential for effective visual communication. Because they are static in nature, symmetrical layouts are more appropriate for warning or regulatory signs, rather than informative signs.

These examples show the use of asymmetrical and symmetrical layouts and good and bad composition is depicted.

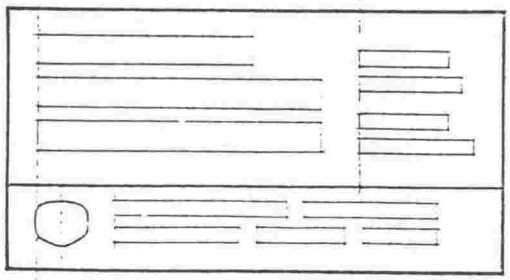
GOOD COMPOSITION



Entirely symmetrical layout.

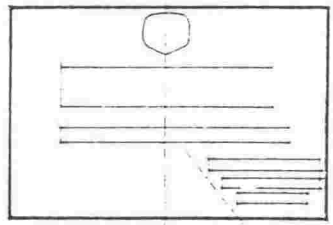


The emblem balances this asymmetrical layout well.

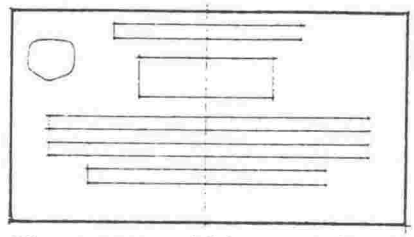


Many design elements but a well balanced asymmetrical layout.

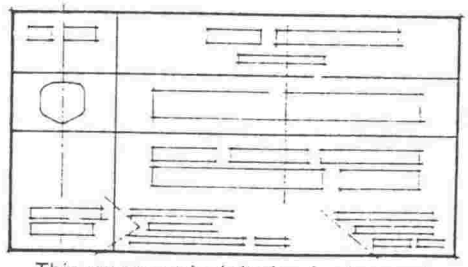
BAD COMPOSITION.



Poorly balanced symmetrical layout.



The symmetry of this composition is spoilt by asymmetrical placing of emblem.



This asymmetrical design is cluttered by too many design elements and different letter sizes.

## The space surrounding the lettering is important

LETTERING FAR TOO BIG AND GARISH!

LETTERING NEEDS ADEQUATE SPACE.

DO NOT CLUTTER A SIGN WITH UNNECESSARY WORDING BECAUSE NO-ONE WILL EVER TRY TO READ IT ESPECIALLY FROM A MOVING CAR.

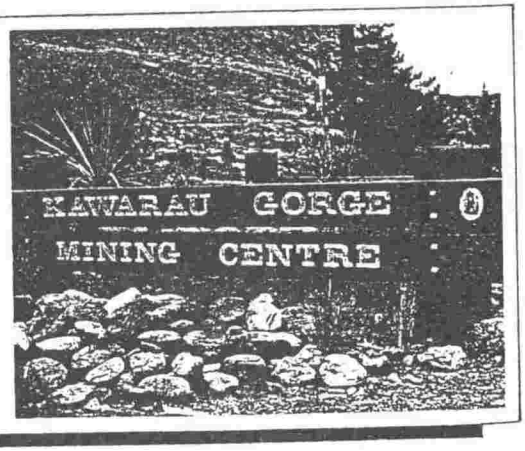
MINIMUM COPY FOR MAXIMUM EFFECT

Signs to be read from a moving car should have at least 3 qualities.

1. Concise with a minimum of words.
2. Lettering should be bold and easily read from a distance.
3. There should be a distinction between the sign and its background. i.e. colours should not blend in with the environment.

## Legibility and colour contrast

Good colour and tonal contrast can make a considerable difference to legibility. Effective colour contrast; for example yellow letters on a brown background as in the example of the Otago Goldfields Park signs, can improve legibility.



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# LESSON PLAN : FACILITIES 5

## Maintenance of Facilities

**Objectives :**

To present the elements of a maintenance program and to emphasise the importance of maintenance in protected areas.

**Presentation :**

1. Definition of 'maintenance': the keeping of protected area facilities and equipment clean, safe, and in working order. Although deterioration is inevitable, the life of a facility can be extended many times by proper maintenance.

2. In most protected areas today maintenance is often the largest consumer of management efforts and funds. Nevertheless, too many facilities have become unserviceable or are in poor condition because proper maintenance has not been carried out. (Give any number of examples here). Lack of spare parts or funds is not always an adequate excuse; deterioration often results from improper use, abuse, or lack of attention or care. Also, for many facilities, maintenance costs can be almost nil (e.g. simple clearing of grass that grows up over a sign).

3. The first rule of good maintenance is "Don't build it if you can't maintain it". When planning any development or acquisition of equipment, pay very close attention to the maintenance costs it will entail.

4. The protected area manager is responsible for supervising a maintenance program, estimating costs and scheduling maintenance efforts. Four types of maintenance programs can be followed:

   - Housekeeping is the basic daily activity of simply keeping things clean and orderly. Examples are washing vehicles at the end of each day, keeping toilet facilities clean, sweeping offices and cleaning windows.

   - Preventative maintenance is the regular inspection and testing of equipment, locate potential breakdowns before they occur. Regular shutdowns of equipment are often required to perform routine checks. A schedule of such maintenance requirements should be kept, along with a record of preventative maintenance performed.

   - Breakdown maintenance is required in the event of unscheduled events such as accidents, storm damage, or vandalism.

- No maintenance is performed when nothing is done to keep up a facility, and usually results in total deterioration and waste of the investment in facilities and equipment.

5. Summary: An organised maintenance program is simply looking after your investment properly. The value of that investment is thereby retained by extending the life of the facilities or equipment. Safety is enhanced, along with respect for the area's property; the public impression of your performance is more favourable; replacement needs will be clearer.

Handout :

Activities : Have students assess maintenance programs on field trips and prepare a schedule and budget for the area.

Assignments :

References :

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# LESSON PLAN : MANAGEMENT 1

## Introduction to Protected Area Management

**Objectives :**

To provide an overview of the factors and activities that make up "management", including necessary skills and responsibilities.

**Presentation :**

1. Define protected area management as "skillful treatment" of an area, including protection, maintenance, administration etc. Management is any activity undertaken to achieve the objectives for the area.

2. Point out the difference between active management and passive management (benign neglect).

3. Point out that protected areas, like other sectors of society, must be consciously managed to provide the benefits for which they are intended.

4. Management involves activities in three general areas:

   - Resource management (of air, water, soil, vegetation, and wildlife), e.g. controlled burning, management of pesticides and pollution, environment impact controls, fencing and weed control.

   - Visitor management, e.g. information and educational services, safety arrangements, regulations, attention to the surrounding population.

   - Management of facilities and services, e.g. headquarters, administration and staff, accommodation, recreation and access facilities.

5. A variety of biological, sociological and administrative skills are required for protected area management:

   - Of all staff: the history and philosophy of protected areas; regulations and laws, ecological principles; organisation, first aid, survival and rescue; operation of basic equipment.

   - Of specialist staff: construction; running workshops; operating vehicles; surveying, public speaking and public relations; report writing; personnel management; budgeting and accounting; policy making and planning; providing visitor services, education and extension services; and conducting biological research.

6. Summary of staff functions and responsibilities:

- Management
- Resource protection: control poaching and boundaries; patrol and law enforcement.
- Environment: scientific management of resources; research and monitoring.
- Information and interpretation: public relations and extension services; preparation of visitor centres, displays and publications.
- Administration: accounting and budgets; personnel; inspections and records.
- Construction and maintenance: engineering, installation and maintenance, and mechanics.
- Law and policy: legal issues, court procedures; land acquisition.
- Planning

Handouts : Management evaluation checklist.

Activities :

Assignments :

References :

**Managing Protected Areas in the South Pacific Region - 1987**

**Handout for Lesson : Management 1**

**Management Evaluation Checklist**

Using the following checklist either to assess the adequacy of the management of your area, or to provide an indication of aspects to aim for.

1. Management Objectives - are they clearly defined, specified.
2. Legislation - it is adequate.
3. Research - is there any adequate programme.
4. Basic Research Information - have you the following:

    a. Inventory of mammals.
    b. Inventory of birds.
    c. Inventory of other vertebrates.
    d. Inventory of plants.
    e. Vegetation map.
    f. Inventory of invertebrates.
    g. Geological map.
    h. Soil map.
    i. Climatic data.
    j. Hydrological data.
    k. Topographic map.
    l. Aerial photographs.
    m. Ecological information.

5. Watershed management, protects water supply, erosion.
6. Management plan, adequate, accepted.
7. Boundaries, clearly marked, practical.
8. Education, Information, Interpretation - adequate facilities, used by schools, local people, tourists.
9. Tourism - facilities, positive and negative aspects.
10. Political support - National, regional and local support, commitments.
11. Local participation - local input.
12. Benefits to local people; Any, if so, what?
13. Budget - is it adequate, problem areas?
14. Maintenance - level of ability to maintain area, facilities, equipment.
15. Personnel - enough, training, suitable skills.
16. Equipment - is there enough to do the job adequately.
17. External support - required or not, what and where from?

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## LESSON PLAN : MANAGEMENT 2

### Organisation and Administrative Structures; Functional Framework for a Protected Area Agency

**Objectives :**

To review adminstrative structures of protected area agencies, general principles of organisational design, and the qualities of effective managers.

**Presentation :**

1. Review various organisational structures. Note similarities in functions and responsibilities.

2. Distinguish organisation structures (allocation of functions and authority), organisational procedures (policies, rules, communications, processes), and organisational resources (finance, manpower and external assistance).

3. Present organisation principles for protected area agencies:

   - The overall goal is to ensure that the agency is organised and effective, sensitive to environmental conditions, and integrated with the social and cultural setting.

   - Legal mandate and policy directions must be clear. They form the basis of the agency's power.

   - The stature and image of the agency should equal those of other government functions. This requires demonstrating professional management (staff training). Public image is also affected by the appearance of staff and facilities. (The corporate image).

   - Procedural mechanisms must be established to permit smooth running of the agency. Manuals and directives to standardise procedures must be available, along with organisation charts.

   - The agency should be integrated into the overall government organisation and be included in policy decisions about resources.

   - The agency should have strong internal lines of communication, as well as lines to other agencies and the public.

   - Staff resources are fundamental and career development is essential for personnel. Goals are low turnover and incentives for staff to advance. Motivation and advancement opportunities can be stimulated by training plans and clear job descriptions.

- Agencies can learn from past mistakes. Staff should evaluate past performance, look for improvements, and develop open, constructive attitudes.

- Planning for the future and adaptability are both essential. Agencies should make both short and long-range plans.

- Support for the agency is reflected in its operational budget; financial allocations are the major constraint.

Handout : Review handhout, "How well is the job being done? Rating the effectiveness of the protected area manager".

Activites : Display examples of adminsitrative charts.

Assignments : Answer the handout's questions, applying them to an area you know.

References :

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**Handout for Lesson : 2**

## How Well is the Job Being Done ?
## Rating the Effectiveness of the Protected Area Manager

1. Do the area manager and staff know their area well enough that they can readily notice significant changes in resources?

2. Have problems been identified and actions taken to correct them?

3. Are environmental impacts being minimised during projects or activities?

4. Are on-the-ground activities compatible with the area's objectives?

5. Do procedures ensure that public use does not damage the area's resources?

6. Have studies or monitoring programmes been identified and programmed?

7. Is there a large-scale base map of the area?

8. Do managers carry adequate reference material during fieldwork?

9. Does an annual work plan guide the operation of the area?

10. Do managerial staff organise their activities to ensure that the work plan's objectives are realised?

11. Do management procedures ensure that on-the-ground work is accomplished according to plans and specifications?

12. Are safety training and accident prevention given high priority in all activities?

13. Are important documents of value to management retained on file?

14. Is there a management plan for the area?

15. Does the area manager use the experience and training of appropriate staff in problem solving and making important decisions?

16. Does the area manager delegate authority to selected staff to spend more time on high level work?

17. Does the area manager make himself readily available to, and maintain good working relations with employees at all levels?

18. Is outstanding work performance duly recognised in employees' work performance ratings?

19. Does the area manager exemplify proper work ethic, attitude and behaviour?

20. Do employees have sufficient training opportunities to qualify for positions of higher responsibility or pay?

21. Do employees have adequate job descriptions to understand their duties?

22. Do duty assignments reflect employee qualifications?

23. Do supervisory personnel have open and good relationships with their employees?

24. Are jobs planned to use personnel effectively?

Source : Adapted from W. Deshler, 1982, A systematic approach to effective management of protected areas (paper presented at the 3rd World Congress on National Parks, Bali, Indonesia).

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# LESSON PLAN : MANAGEMENT 3

## Introduction to Planning

**Objectives :**

To provide an overview of the nature of, reasons for, and types of planning necessary for protected areas.

**Presentation :**

1. Analogy : In preparing for a trip what do you do? You decide on the purpose and destination of the trip. You decide what equipment to take and who should participate. You estimate the duration and cost. In making these determinations you are planning.

2. Definition of "planning": A systematic process aimed at achieving future objectives. Planning is an orderly development based on logical forethought. It is essential in managing protected areas.

3. Why make a plan?

   - Events do not happen spontaneously. The sequence of events leading to a desired future must be consciously thought out. A plan is needed to guide our activities and organise our approach.

   - A plan is a management tool for allocating staff, equipment, and funds. It can be useful for fund-raising and public relations. A plan can help gain the co-operation of the public and other government agencies. A plan also gives consistency and continuity to management.

   - The preparation of a plan is a useful training exercise, as it helps clarify key issues.

4. Levels of planning : national development plans (e.g. 5-year plans); protected area system plans; management plans; working plans; site plans (e.g. a visitor centre plan).

Handout :

Activities : Bring examples of each type of plan to class and circulate for review and discussion.

Assignment :

References :

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# LESSON PLAN : MANAGEMENT 4

## Management Plans

**Objectives :**

To introduce students to the planning process, provide an example of a management plan, and stress the importance of setting objectives.

**Presentation :**

1. Definition of "management plan": a document that guides and controls the management of a protected area, it is a document which presents the direction for the coming 5 to 10 years.

2. Rather than be rigid and detailed, the management plan should set up a philosophy upon which to guide future decisions. This philosophy must be supported by data.

3. The 'objective' is what we ultimately intend to achieve.
   The 'policies' are what we need to do to achieve the objectives.

4. Management planning has been evolved to provide a control from pressures on the resource, to assist problem solving and park management, and to avoid development mistakes.

5. Management planning is a method of directing change towards a desired goal or objective and does not involve making decisions now for some future time. To do this it is basically concerned with setting up a framework of constraints on both intuitive decision making as well as unwanted developments. These are generally in the form of written objectives and policies which are adopted by the administration authority and used to aid identification of problems as they arise and influence decisions.

6. This should not be confused with the design process which is an operational procedure by which certain problems may be overcome by the achievement of a specific task at a defined point in time. That is, a detailed design solution is self contained and usually necessary to either overcome pressing problems or to be implement policy or development proposals. Design plans are generally in graphic form and should conform to the objectives and policies of a management plan. Sometimes development proposals or designs are initially attached to a management plan to solve immediate problems or establish a work programme.

7. Management and working plans, as the names imply are two distinct plans. In essence the management plan is concerned with processes and therefore an unspecified time scale, whereas the working plan usually proposes a development programme and incorporates design solutions to immediate problems.

8. Basic process is : Gather information, evaluate it, formulate objectives and supporting policies. Need for continued monitoring and re-assessment within social framework.

9. The plan should draw on relevant data, but it should not just be a source of data alone. The implications of the data for management of the resource should be developed as much as possible.

10. Public involved. A programme of public involvement should be built into the planning process . This will allow:

    (a) An assessment of public reaciton to management options,

    (b) A means to identify concerns of local populations,

    (c) A chance to explain the rationale for protected area management.

    The end result should be a better plan which is more easily implemented.

11. The management plan needs monitoring to evaluate its effectiveness and be re-assessed from time to time - say every 5 years.

12. Review Handout : A Management Checklist, students should draw up a management plan framework to suit their own particular area, list appropriate headings.

Handout : Managment Plan Checklist

Activities :

Assignements :

References :

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**Handout for Lesson : Management 4**

**Management Plans - Format/Checklist**

**Note :** This checklist provides an indication only of the range of subjects which may need considering. It should be adapted to suit the area being planned.

Name of area
Status of area
Locality

Introduction :

Legal description
Physical description
- Land form
- Geological, soils
- Climate
- Vegetation
- Wildlife
- Archaeological & Historical values
- Facilities and existing developments
- Boundaries and adjacent lands

The implications for management should be discussed under each heading.

History and Background
- Why reserve created
- Diary of important events and developments
- Present management

Present
- Uses
- Abuses

Values and Potential of area

Analysis of Regional Services

Evaluation

Objectives

Policies (as appropriate)

Admin.
Control
Visitor numbers
Interpretation
Research & Surveys
Visitor Safety
Rubbish
Vandalism
Closure to public
Significant areas
- historic

Resources
Fences
Boundaries
Adjacent land use

Fires
Fire Control

Vegetation management
indigenous
protected
rare
exotic
noxious weeds
other weeds
Wildlife management
indigenous
protected
rare & endangered
Noxious animals
Domestic animals
Stock
Grazing

Cultivation
People
Access
Traditional Uses
Historic practices

Vehicles
Tracks
signs
Picnicing
Camping
Boating
Fishing
Facilities
toilets
play equipment
Overnight accommodation
staff
huts
club lodges
other

Essential services
Commercial Activity
Concessions
Sports facilities
Clubroom

Management Concept

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# LESSON PLAN : MANAGEMENT 5

## A Working Plan

**Objectives :**

To consider the preparation of a working plan.

**Presentation :**

1. Working plans are useful tools in establishing priorities and in outlining specific activities for the short term.

2. The plan should be concise and practical and prepared by the resource managers who will then implement it.

3. One approach is to give an overview of the management intentions for the term of the plan and then:

   (a) consider each requirement needed to achieve them and any development proposals or activities.

   (b) consider the problems and present design solutions and courses of action.

   (c) consider the regular operational needs and programmes, and

   (d) the staff, facilities and equipment required to achieve the plan and financial forecasts.

4. This approach will vary and depend on your country's needs and administrative requirements (e.g. annual financial planning and information needs).

5. The output should be a list of specific actions required, grouped by function, a priority given, and an indication of responsibility for completion.

Handout :

Activities :

Assisgnments :

References :

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## LESSON PLAN : MANAGEMENT 6

### Protected Area Visitors : What You Need to Know

**Objectives :**

To outline the types of information to collect on visitors.

**Presentation :**

1. It is important to gather information on an area's visitors, just as it is important to monitor natural resources. Visitor information is required for (a) budgeting, (b) allocating personnel, (c) scheduling maintenance, (d) understanding the users, (e) detecting trends in use, (f) planning.

2. Basic figures should be collected to indicate the number of visitors, by entry gate and arrival mode (air, automobile, or bus).

3. Gather data on travel patterns.

4. Collect data on visitor activities (viewing, camping, picnicing, walking, fishing, education, etc).

5. Identify periods of use so that peak periods can be accommodated.

6. Regular counts should be made of particular places (e.g. a popular picnic spot), these should be made at the same time of the day each time. Note weather or any special features which may affect the visitor numbers for future reference, e.g. public holidays, cruise ships in.

   Vehicles can be counted and multiplied by the average number of occupants. This can be obtained by surveys from time to time counting visitors in cars.

7. Records visitors' places or origin, to clarify the market area and the staff's language requirements.

8. Records visitors' lengths of stay.

9. Have visitors indicate their levels of satisfaction and suggestions for improvements.

10. Identify and discuss the various techniques suitable for gathering this information.

Handout :

Activities : Tourist facilities & data collection exercise

Assignment : Interview area staff on field trips to collect such data.

References :

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# EXERCISE FOR LESSON PLAN : MANAGEMENT 6

## Visitor Facilities and Data Collection

**Objectives :**

To consider the broad range of tourist facilities in and around protected areas and involve students in collecting data on tourism.

**Presentation :**

1. The exercise is carried out in the field.

2. Have students inventory all tourist facilities in and around the park (number of beds and campsites, miles of roads, airstrips, information facilities, etc), note the condition and suitability of facilities, and suggest improvements.

3. Have students collect information on visitor use from records, accommodation registers, and park headquarters, present this information, and note reliability of data.

4. Any national park or similar area is suitable for this exercise.

5. Include findings in a report.

# LESSON PLAN : MANAGEMENT 7

## Environmental Impact Assessment

**Objectives :**

To understand the implications and to assess the impacts of proposed developments.

**Presentation :**

1. Mistakes have been made in developments in protected (and other) areas worldwide, and the resulting damage is evident. It is important to recognise the dangers and minimise them.

2. The social impact is an important factor of the assessment.

3. Once the full extent of a proposal is known the questions to be asked are:

   (a) The need : Establish whether or not there is a justified need for the proposal,

   (b) Biological and Physical impacts : Identify the main ecological implications,

   (c) Visual impacts : establish aesthetic affects, both into and from the site,

   (d) Social impact : identify the main social implications.

   (e) Design considerations : Is design adequate to safeguard the above considerations.

4. The 'carrying capacity' of the site (and including all of the related off site areas effected), needs to be determined early on. The impact of a small number of people will be vastly different than a large number, a large number of visitors evenly distributed is different than uneven with heavy loadings at certain times.

Handout : (a) Environment Impact Assessment Format.
(b) Potential environmental effects on visitor use.

Activities :

Assignments :

References : NZ Dept. Lands and Survey Adminsitration Manual.

**Managing Protected Areas in the South Pacific Region - 1987**

**Handout (a) for Lesson : Management 7**

**Environmental Impact Assessment : General Format**

1. Name of Area

2. Description of area and its present state

3. Proposal

Briefly describe proposed action, change or development.

4. Justification for change

Who or what initiated the change?
Will a more desirable use result?
What benefits will result?
Provide factual basis and reasoning to support each case.

5. Significant Adverse Impacts

What value or resources will be diminished or lost?
Consider both short and long term, primary and secondary consequences.
Provide factual data to substantiate any claims made.
Record measureable impacts.
Identify relevant human concerns.
Consider nature of impacts and effects on people, e.g.:
economic, social, psychological, health and safety, customary, traditional, cultural, political and legal.

6. Possible Alternatives

What are other options, why are they not preferred?
What would the effects be if no action took place?

7. Predictions

Predict nature of the environmental and social effects, kinds of change, rates of change, irreversible changes.
(A change is considered irreversible if it is not economically, socially, politically or ecologically feasible or aesthetically desirable to return to the former situation in a relatively short time.

8. Design Considerations

What conditions or changes should be imposed on the proposal to minimise negative impacts and provide safeguards.

9. Recommendations

Make recommendations. Accept, modify or reject proposal. Give reasons for the decision, outline any conditions and/or proposals for alternatives.

**N.B.**

It may not always be possible to answer all of these questions, there may be other questions relating to the site or proposal, this format should be adapted to suit the particular situation being considered.

Use maps, overlays, flow diagrams, matrix's, graphs and other aids to help portray the situation and the likely effects.

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**Handout (b) for Lesson : Management**

**Some Potential Environment Effect of Visitor Use of Protected Areas**

| Factor Involved | Impact on Natural Quality | Direct Effects Comments |
|---|---|---|
| Overcrowding | Environmental stress, behavioural changes | Irritation, reduction in quality,need for carrying capacity limited |
| Overdevelopment | Development of rural slums, excessive man made structures | Unsightly urban concentrations |
| Recreation Powerboats | Disturbance of wildlife and quiet | Vulnerability during nesting seasons |
| Fishing | None | Competition with natural predators |
| Pollution | | |
| Noise (radius, etc) | Disturbance | Irritation |
| Litter | Impairment of natural scene | Aesthetic and health hazard |
| Vandalism | Mutilation and facility destruction | Removal of natural features, facility damage |
| Vehicles | | |
| Increased numbers | Disturbance | Irritation |
| Off-road driving | Soil and vegetation damage | Disturbance |
| Souvenir | Removal of natural | Shells, coral, horns, trophies, rare plants |
| | **Indirect Effects** | |
| Firewood collection | Small wildlife mortality and habitat destruction | Interference with energy flow |
| Roads | Habitat loss, drainage changes | Aesthetic scars |
| Power lines | Destruction of vegetation | Aesthetic impacts |
| Introduction of exotic plants and animals | Competition with wild species | Public confusion |

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## LESSON PLAN : MANAGEMENT 8

### The Corporate Image

**Objectives :**

To understand the aspects of a good 'corporate image'.

**Presentation :**

1. Public perception of an organisation is very important, especially in achieving one's objectives.

2. A co-ordinated approach is required for all things identified as part of the park operation. This is essential so that the public can identify with the park system and the park system presents a good image.

3. A high standard must be maintained in both construction and maintenance.

4. Items to be considered as part of the identity area:

   - a symbol or logo : This must be suitable for reproduction in a wide range of situations from letterheads to signs and vehicles.

   - Administrative image : Letterheads, stationery items.

   - Publications, pamphlets, public relations items, displays; link design colours, letter style, a hierarchy.

   - Buildings and facilities must relate to a theme.

   - Vehicles, boats, plant and equipment must relate to each other and park theme, colour etc.

   - Signs - consistent design, relate to each other, a hierachy colour, letter, style, material layout.

   - Staff - uniforms, badges of identification.

5. Consider all the various components of the park system -

   - Identify its character.
   - What is common and links the system together?
   - What colour or colours relate to the park?
   - What letter style fits in with its character?
   - What impression are we trying to present?

Handout :

Activities :

Assignments :

References :

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# LESSON PLAN : MANAGEMENT 9

## Finance

**Objectives :**

To provide students with a basic understanding of financial planning and management.

**Presentation :**

1. The same principles apply to financial planning as to any other form of planning.

2. Each country will have its own regulations and guidelines to be followed, however, they will generally follow the pattern below.

3. Know your own procedures, plan ahead - monitor expenditure.

4. Identify longer term goals; list in order of priority, estimate cost of each, provide adequate and relevant justification.

5. Annual estimates; usually divided between capital items, and administration and maintenance:

   (a) Capital.

   List in order of priority, detail costs, provide supporting information and evidence on why its needed, show you know what you're talking about and that its been properly thought through (including flow on costs, i.e. extra maintenance).

   (b) Administration and Maintenance.

   Calculate out all costs associated with running the park. List headings and work through methodically e.g. staff, numbers and wages plus allowances, part time staff hours, etc.

   Provide supporting evidence in the form of notes attached to estimate sheets.

Put yourself in the position of controlling authorities, ask yourself, "Why does he want all this money?" The person with the best reasons and supporting data usually does better than a person less well prepared.

Once an allocation has been made, go back to your estimates and re-arrange in terms of the finance provided. This becomes your budget. It will probably be less than you wanted.

6. Your financial planning should be tied into the management and working plans. This should provide your longer term direction and justification.

7. Spending the money - Controls are needed.

   Assess seasonal spending patterns.

   Assess regular spending patterns.

   Assess wages.

   Divide and allocate accordingly, as you need to be able to keep pace with the level of spending throughout the year.

Handout :

Activities :

Assignments :

References :

**Managing Protected Areas in the South Pacific Region : 1987**

**Handout for Lesson : Management 9**

**Project Outline and Estimate Assessment Form**

This form can be used as a guide to cost out and justify any project proposal whether capital or maintenance (i.e. anything above routine maintenance). It should be adapted to suit your particular requirements. For the manager it provides a check that everything has been included and nothing left out of the estimate.

Project Name :

Location :

Description :

Ref No :

Date :

Proposed Dates for Project :

Start
Finish

Reason for Justification :

| Summary : | Internal Supply | Other Sources |
|---|---|---|
| Materials : | $ | $ |
| Manpower : | $ | $ |
| Transport : | $ | $ |
| Accommodation: | $_____ | $_____ |

Materials Schedule : (on back)

Labour Schedule : (list on back)

| | Other People | Time | Cost |
|---|---|---|---|
| Park Staff | | | |
| Others | | | |

Quotes : (comparable quotes for total work to be completed by contractor. Estimate supervisory, liaison or other park input required).

Transport Requirements/Costs :

Accommodation Arrangments/Cost :

ESTIMATES prepared by: ..... ..... .....
position name date

Comments/Conditions :

Approved/Declined .....

**Managing Protected Areas in the South Pacific Region - 1987**

**Handout for Lesson : Management 9**

**Annual Estimates - Checklist**

| | Area 1 | Area 2 | Total |
|---|---|---|---|
| **Administrative Expenses** | | | |
| Audit fees | | | |
| Board-Committee expenses | | | |
| Power supply | | | |
| Rental buildings, etc. | | | |
| Telephones, Tolls, Postages. | | | |
| Printing and Stationery | | | |
| Miscellaneous | | | |
| Freight | | | |
| Insurances | | | |
| Staff, Labour | | | |
| Staff allowances | | | |
| **Maintenance Items** | | | |
| Buildings | | | |
| Water Supply | | | |
| Flora and Fauna Protection | | | |
| Public facilities | | | |
| Plant and Equipment | | | |
| Signs and Notices | | | |
| Road, tracks and bridges | | | |
| Motor Vehicles, Tractors, etc - repairs | | | |
| Boats, fuel | | | |
| Boats, repairs | | | |
| Noxious animal control | | | |
| Weed control | | | |
| Rubbish disposal | | | |
| **Public Relations & Interpretation** | | | |
| Publicity and Displays | | | |
| Printing and Publications | | | |
| Photographic materials | | | |
| **Capital Projects** | | | |
| (List in order or priority) | | | |