The Rhetoric and Reality of Conservation Aid in Western Samoa

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Christchurch
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"There does not exist a coconut tree that is bent for no reason at all; it is bent because of the wind"
(Samoan Proverb)
Abstract

The western conservation concept is articulated at the global level. However in practice conservation is regionally or locally pursued. This thesis examines how the global rhetoric of modern conservation relates to the local reality of conservation in Western Samoa.

Three specific conservation area aid projects are analysed to assess this relationship. They are analysed predominantly from the local grassroots level. A national park approach, motivated by ecological criteria, operates in isolation from its surrounding community. Not only does the strict preservation established at the park boundaries exclude local people, but also the ideologies embodied in the park remain foreign and therefore exclusive.

The conservation agenda as pursued in the other two conservation strategies is a more integrated approach that includes socio-economic and cultural criteria, as well as ecological criteria. The villages surrounding these areas are therefore motivated by a broader spectrum of values, many of which are more tangible than long-term ecological benefits. This integration of 'people criteria' into conservation projects is consequently more inclusive of local communities.

However the integrated conservation-development approach to conservation contains fundamental problems in its design. Many of these relate to the merger of environment and development objectives within the one project. Despite these broader problems the reality at the local level in Western Samoa supports the continuance of foreign conservation assistance. A strong development imperative and a rapidly disappearing forest resource are two of the realities of the local context that demand external support. This external assistance must be balanced by the value of the local culture.
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<th>Full Form</th>
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<tbody>
<tr>
<td>BCN</td>
<td>Biodiversity Conservation Network</td>
</tr>
<tr>
<td>DEC</td>
<td>Division of Environment and Conservation</td>
</tr>
<tr>
<td>DLSE</td>
<td>Department of Lands, Surveys and Environment</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GEF</td>
<td>Global Environment Facility</td>
</tr>
<tr>
<td>ICDP</td>
<td>Integrated Conservation and Development Project</td>
</tr>
<tr>
<td>IUCN</td>
<td>International Union for the Conservation of Nature and Natural Resources (World Conservation Union)</td>
</tr>
<tr>
<td>NEMS</td>
<td>National Environmental Management Strategy</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Government Organisation</td>
</tr>
<tr>
<td>NZODA</td>
<td>New Zealand Official Development Assistance</td>
</tr>
<tr>
<td>ODA</td>
<td>Official Development Assistance</td>
</tr>
<tr>
<td>SIDA</td>
<td>Swedish International Development Assistance</td>
</tr>
<tr>
<td>SNF</td>
<td>Swedish Society for Nature Conservation</td>
</tr>
<tr>
<td>SPBCP</td>
<td>South Pacific Biodiversity Conservation Programme</td>
</tr>
<tr>
<td>SPREP</td>
<td>South Pacific Regional Environment Programme</td>
</tr>
<tr>
<td>UNCED</td>
<td>United Nations Conference on Environment and Development</td>
</tr>
<tr>
<td>UNDAT</td>
<td>United Nations Development Advisory Team</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Education, Scientific and Cultural Organisation</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>WCS</td>
<td>World Conservation Strategy</td>
</tr>
<tr>
<td>WWF</td>
<td>World-Wide Fund for Nature</td>
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</table>
### Glossary of Samoan Words

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
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<tbody>
<tr>
<td>aiga</td>
<td>family</td>
</tr>
<tr>
<td>'ava</td>
<td>kava (plant root, drink)</td>
</tr>
<tr>
<td>fa'a Samoa</td>
<td>the Samoan way of life/things</td>
</tr>
<tr>
<td>fale</td>
<td>Samoan house</td>
</tr>
<tr>
<td>fono</td>
<td>village council/polity</td>
</tr>
<tr>
<td>ifilele</td>
<td>large tree used for timber and carving</td>
</tr>
<tr>
<td>palagi</td>
<td>person of European descent</td>
</tr>
<tr>
<td>pule</td>
<td>authority</td>
</tr>
<tr>
<td>matai</td>
<td>head of family, chief</td>
</tr>
<tr>
<td>sa</td>
<td>tapu</td>
</tr>
<tr>
<td>tulafale</td>
<td>talking chief, orator</td>
</tr>
<tr>
<td>ufi</td>
<td>Samoan yam</td>
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</tbody>
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Chapter One

Introduction

1.1 PREFACE

Concepts of conservation are socially constructed. Our attitudes and values towards conservation develop according to how we use the environment. Different cultures use the environment differently and hence perceive conservation, as a subset of the environment, differently. In Aotearoa/New Zealand the western capitalist system influences and shapes our concept of conservation.

Protected areas represent a physical expression of the western concept of conservation. As tangible products, protected areas interact with society at a practical level. Therefore in evaluating a society's understanding of, attitude towards, and use of, a protected area, the degree of integration of the western conservation concept into a community can be attained.

My personal experiences with such a conservation concept started with my interactions with Abel Tasman and Nelson Lakes National Parks near my home of Nelson. From being too young to appreciate the concept reified in a national park, I have moved on to appreciate some wider implications of conservation.

Social constructions of conservation are underdeveloped in a five year old. So at that age when I frequently walked for one and a half hours into a skifield in Nelson Lakes National Park, it was for the purpose of skiing. The fact that I was in a beautiful national park was irrelevant. The 'benefits' of natural beauty - peace, solitude and wilderness - were intangible compared to the immediate thrill of a day's skiing. Walking in the wilderness, for me, had one meaningful purpose - to get me to the ski slopes. In following years, as my parents took the family tramping, we were introduced to a new concept. Having accepted tramping for the purpose of skiing, the idea of tramping with no immediate purpose at all was
foreign for some of the family. We could just not comprehend why we were walking to a hut to stay the night and then come back! Why did we not stay at home for the night? In searching for a purpose to the exercise I once resorted to collecting firewood along the track and carrying it all day in order to cook our evening meal!

Being 'thrown into' nature at an early age led quickly to an acceptance of conservation. I soon appreciated protected areas as necessary 'islands of anti-development'. The concept suited my urban affluent lifestyle. I began to use and value national parks for what they did not have rather than what they had. They were areas of low human impact that represented a valuable contrast to my urban home. I respected park boundaries that established this dichotomy.

Recently I have become aware of broader concepts of conservation that move beyond 'locking up' areas in national parks at the practical level. Unlike my earlier doubts about western systems of conservation, this latest vision has largely come from theoretical and academic positions. For this new perspective I am in debt to two contemporary ideas. Firstly is the introduction of a cultural perspective into conservation, emerging from a reassertion of First Peoples' rights in western nations, including Aotearoa (for example, West and Brechin 1991, and Wells and Brandon 1992). Incorporated in this thinking, for Aotearoa in particular, is a shift from a Eurocentric to a Pacific vision (for example, Report of the South Pacific Policy Review Group 1990, and Crocombe 1992). Secondly is my acceptance of the general principles of the global concept of sustainable development. This challenges my values of environment as separate from development by marrying the two concepts into what I now believe is a valuable concept for the future. It is consequently necessary for me to realign my attitudes to the values of strict preservation verses sustainable conservation.

1.2 THE ISSUE

My thoughts on conservation have moved from valuing the benefits of national parks at a local level, to appreciating the broader global scale issues embodied in sustainable development. This knowledge of global issues is now leading me to revalue the local context in the conservation agenda. This thesis follows a similar
local-global-local approach to the conservation agenda in the context of Western Samoa.

A combination of the concepts of development, environment, and aid within a local cultural context, provides the broad subject of this thesis. This is represented by the intersecting components within the broader circle in Figure 1.1. Sustainable development has evolved as a global, though distinctively western, set of ideas. International aid is extending both the concept and practice of sustainable development to non-western societies. The present issue relates to this extension to a global scale and the problems associated in attempting to operationalise these global ideas at a local level. Nature conservation, as seen by westerners, is a major prerequisite for the achievement of sustainable development, and is likewise searching for local scale operational models and provides a more tangible process for this research to focus upon.

![Diagram of Sustainable Development Aid](diagram.png)

Non-western cultures have been valued and respected in the west at the same time as the idea and practice of sustainable development has been globalised. So defining these concepts at a local level requires a flexible approach that respects local cultural values giving a cultural-specific definition.
In the Western Samoan context the task is to find the local context within the global conservation/sustainable development agenda. International aid continues to be one of the vehicles by which these concepts are travelling into Samoa. Protected areas are a particularly popular model of this vehicle. Establishing protected areas in a local context sets the problem for this thesis:

**Conservation aid projects must complement the culture of Samoa, and have a place within its traditions and customs, while at the same time containing in their design a recognition and accommodation of the desire of the majority of Samoans for development.**

### 1.3 WESTERN SAMOA

The physical, social and economic conditions in Western Samoa complement the issue outlined above. Firstly many unsustainable practices are undermining the integrity of the resource base. Small island characteristics also render Western Samoa particularly vulnerable to species and ecosystems loss. With the importance of the natural resource base for the economy, through agriculture, fishing and forestry, the maintenance of natural resources is a prerequisite for the economy. Western Samoa is also becoming somewhat dependent on foreign aid which is equivalent to a third of the nation's gross domestic product (Central Bank of Western Samoa 1994). Thus so-called 'luxuries' like environmental protection are almost solely dependent on international responses.

The socio-cultural system in Western Samoa is often described as highly conservative and resilient to change:

> Tradition dies hard in Western Samoa. The many aspects of the Samoan way of life are vigorously and steadfastly protected. Nowhere else in the Pacific is innovation so resolutely resisted, and in few other territories is the cult of custom so deeply revered (Farrell and Ward, *in* Fox and Cumberland 1962: 232-233).

This point is of particular relevance to the problem stated above. In the past it is evident that of the practices introduced into Western Samoa, only those that fit the customs are accepted, and further if changes are forced in, they tend to have the opposite outcome than that for which they were proposed. A small example of such an occurrence appeared while I was in Western Samoa early in 1994.
The Government had introduced a 10 percent Value-Added Goods and Services Tax intended to raise more internal revenue. It was strongly opposed during my visit. The Government began to collect an extra 30-40 cents on each bottle of beer sold. This suited the purpose of the tax, until it was discovered that beer sales had declined as Samoans had returned to drinking their traditional subsistence drink of 'ava. Thus in the end the Government collects less revenue due to a decrease in beer sales.

At the same time customs are far from static and unchanging. The fa'a Samoa, customary way of life, has an ability to adapt to suit changing circumstances. The socio-cultural system can and has adapted due to international connections. Informal changes to land tenure systems are an important aspect for the issue at hand (O'Meara 1987, 1990, and 1994). The brief physical, socio-economic and cultural situation presented here justifies the applicability of Western Samoa to the problem raised earlier.

My personal relationship with Western Samoa began with this thesis. As a Pakeha from Aotearoa with little understanding of fa'a Samoa, I take full responsibility for the shortcomings of my research. I am not dealing with my culture, history, geography, or development for that matter. It would be easy for me to divorce myself from the issue entirely, bringing benefits and disadvantages. Back in Christchurch this is particularly true. Besides writing this thesis I have recently attended numerous seminars and a conference on sustainable development in the Pacific. This all contributes to the "detached academic stance of a Pakeha researcher" that Stokes (1987) goes on to describe as being "often irrelevant." My work falls short of a full understanding of the real issues involved in Samoa and I believe that acknowledgement of this is extremely important. While the dichotomy in culture, history and geography can be a hindrance, it can also be seen as positive. I am able to operate comfortably in the Pakeha society in which I live and with the exception of a language barrier I felt comfortable researching in the Samoan world. So while essentially this research comes from an outsider looking in, it is from an outsider who is comfortable with both societies.
1.4 METHODOLOGY

An analysis of the relationships between people and their environment encompasses the broad methodology for this research. People interact with the environment at different levels. Sesega (1990) suggests three levels at which changes are required in order to achieve sustainable development in Western Samoa (Figure 1.2). People-environment interactions at the cognitive, policy and operating level direct the path towards sustainable development. Each level has a number of changes ascribed to it that must alter if the goal of sustainable development is to be achieved. This model is used as the basis for the analysis.

<table>
<thead>
<tr>
<th>LEVEL OF CHANGE</th>
<th>TYPE OF CHANGE ASCRIBED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Level</td>
<td>values, attitudes, perceptions</td>
</tr>
<tr>
<td>Policy Level</td>
<td>policies, procedures, rules, legislation</td>
</tr>
<tr>
<td>Operating Level</td>
<td>actions, practices</td>
</tr>
</tbody>
</table>

Figure 1.2: Levels of Changes Required to Shift to a Sustainable Path of Development
After: Sesega (1990)

A case study approach is adopted whereby three particular aid projects are examined. These projects all involve different strategies of resource protection based around the broad concept of a conservation area. The projects include a national park, a rainforest preserve, and an integrated conservation and development project. By analysing the changes ascribed to each level for each project, an indication of the likely sustainability of the projects will be gained.

The cognitive level is manifest in an individual's attitude and perception towards a project. For each project in this study this is gauged through the results of village surveys in the villages adjacent to or included in the projects. The questionnaire used is presented in Appendix One. Slight modifications were employed according to prior knowledge of the particular circumstances surrounding each project. However the essential questions relating to the use of
the conservation area and the local values, attitudes and perceptions towards the project (questions 8 and 9) were held constant for all projects. Also the questionnaire as presented in Appendix One does not depict the open-ended approach adopted. Paulson (1992) recommends this semi-structured interview approach to village surveys in Western Samoa.

Surveying entire villages to get large amounts of quantitative data was the ideal rather than the reality. Employing a competent interpreter from each village was met with varying degrees of success. At times interviews were conducted in a language somewhere between bad English and bad Samoan. Even when reliable interpreters were employed the data collection was still disadvantaged by my inability to speak Samoan. I am sure those that have conducted research through an interpreter will appreciate the frustrations of six word responses from the interpreter when your subject has just spoken solidly for four minutes. Much valuable information must be lost. The other problem encountered, which is more specific to Samoa, is the desire of the subjects to give an answer to a question that they think will please the interviewer. The frequent use of affirmative answering is acknowledged by Swaney (1990: 21) and Elmqvist (1992a: 4).

The policy level of each project is analysed at two scales. The Western Samoan political system operates at both a national scale through a modern western-style government, and a village scale through traditional village fonos (councils). The national government has limited influence over projects on non-public land and hence its actions are only immediately applicable to one of the three case studies researched. Nevertheless at the national level there is legislation in place to gazette protected areas, and a departmental division to administer this. Policy at the village scale is dominated by rules and agreements that may not have the backing of law in a western sense, but are enforced by the mana of the signatories. Concerning protected area projects these agreements are examined between the fonos, and an international environmental non-government organisation in one case, and the Government of Western Samoa in another. Information relevant to the political level is derived from reports of the projects, legislation and agreements, and through personal interviews with the key personnel in each project.
At the operating level the tangible aspects of the projects are examined. Essentially this involves an investigation of the immediate actions and practices of each project. These are all based around the actual establishment of the protected area but include complementary schemes such as arts and crafts workshops, ecotourism facilities and agricultural schemes. The data at this level derive from visits to the sites and discussions with the specific project designers.

Sesega (1990) states that there is a need for change if Samoa is to get onto a sustainable path of development. The methodology of this thesis, therefore, sets out to investigate changes at all three levels as a necessary prerequisite for sustainability.

1.5 THESIS STRUCTURE

A model displaying the important ideas and concepts of this thesis is illustrated in Figure 1.3. The basic ideas are indicated at the top of the diagram. That is, how developed world concepts are transferred into practice in the less developed world. This theme has a temporal context also which is illustrated in the vertical dimension. The shaded boxes refer more specifically to the information in each chapter.

In the spatial dimension the thesis first examines the broad global concept of sustainable development, or environmentalism and development for the earlier period. This is narrowed down to the transfer of aspects of conservation from developed to less developed nations via international aid. In the third spatial scale the implications of this on protected areas and local communities in Western Samoa are investigated.

The temporal dimension is less clear-cut but nevertheless has been divided into three periods to simplify analysis. These three periods are designed to fit both the evolution and extension of sustainable development at the global scale, and the initiation of the three project case studies at the local scale. A fourth temporal component involving what lies ahead is speculated upon in the concluding section. Thus the temporal aspect intends to illustrate any shifts towards the path of sustainable development.
### DEVELOPED WORLD CONCEPTS

**Sustainable Development at Global Level**
- Conference on Human Environment, 1972:
  - "environment" first enters global agenda.
- WCED (1987):
  - link environment and development under "sustainable development"
- UNCED (1992):
  - concept of "global partnership" to aid less developed areas achieve sustainable development.

**Transfer of Conservation Concepts as Green Aid**
- globalisation of western concepts of preservation.
- less extreme approach to conservation that includes the human component.
- promote development alongside conservation.
  - grassroots led.
  - large global funds.

### LESS DEVELOPED WORLD PRACTICE

**Protected Areas in Western Samoa**
- Chapter 4
  - 1980:
    - 'O Le Pupu-Pu'e National Park.
    - 4 Reserves.
    - 1 Botanical Garden.
  - Chapter 5
    - 1988 → 1990:
      - Falealupo Rainforest Preserve.
      - Tafua Peninsular Rainforest Preserve.
  - Chapter 6
    - 1993:
      - Sataoa-Saanapu Mangrove Forest.
      - A'opo-Letui-Sasina Lowland Forest.

**Conclusions: Chapters 8 and 9**

*Figure 1.3: Model of Thesis Structure.*
Figure 1.3 also indicates the structure that this thesis follows. The following chapter opens up with a broad historical analysis of the evolution of sustainable development. Global environmental conferences are related to a concurrent set of ideas and theoretical literature. The resulting debate and visions are traced through to the present day. Alongside the strict conceptual view of sustainable development is an analysis of the changing ideas on conservation, presented as an integral and more practical component of the theory.

Chapter Three moves on to explore how the concepts and practices established in the developed world are transferred to less developed nations. This concentrates on the evolution of international aid to incorporate a 'green' component. Multilateral, bilateral, and non-governmental aid are included in this analysis.

In Chapter Four the issue is narrowed down to focus on Western Samoa. An introduction to this island nation is followed by a description of the environmental, economic, and social-political cultural setting that renders Western Samoa an appropriate recipient of green aid. During this analysis the more specific aspects of the society that effect resource management are focused upon. Chapter's Five, Six, and Seven then move on to discuss the aid projects relating to conservation within Western Samoa. The three projects (in bold type in Figure 1.3) are focused upon but broader issues relating to conservation in Western Samoa are inescapable at the same time. This section comprises the bulk of the primary research and follows the methodology outlined in the previous section.

The conclusion to the thesis is divided into two parts. Chapter Eight assesses the situation as put forward for Western Samoa. The case studies are analysed for their respective success in achieving either sustainable conservation or sustainable development. This is then put into a regional Pacific island context which analyses whether there are any local or regional feedbacks to the dominant flow of ideas and practices from the developed to the underdeveloped world. The final chapter broadens out a further step to assess the concepts of sustainable development and conservation. It focuses on the applicability of transferring ideas ground in one culture into a new cultural setting. The future of these ideas and their transfer are questioned.
Chapter Two

Environment meets Development: Conceptual Basis for Nature Conservation and Protected Areas

The practical component of this report examines a number of strategies aimed at protecting areas. As methods of conservation, protected areas have roots within broader concepts of environmentalism. This theoretical section investigates the evolution of environmentalism and its incorporation into the concept of sustainable development. Conceptualising sustainable development forms a central part of this thesis as it coincides temporally with the establishment of protected areas in Western Samoa. The implications of this evolving theory are applied to the subset of conservation. However as a basis for current thinking, it is necessary to begin by considering both the long-term cultural basis, and the more immediate theoretical context of western environmental concern.

2.1 HISTORICAL CONTEXT

The Original Basis for Western Environmental Concern

Environmentalism caters for a spectrum of values. Two major world views are generally conceptualised within this spectrum, for example Passmore (1974), O'Riordan (1976, 1989), Pepper (1984), and Attfield (1991). To varying degrees these writers identify a distinction between, on the one side, a conservative, nurturing, romantic, ecocentric, and intimate view of society-nature relationships, and on the other side a radical, manipulative, interventionist, despotic, technocentric, scientific, and separate perspective. O'Riordan (1989: 78) labels this duality as a 'nature-as-nurture' perspective and 'nature-as-usufruct' view, and claims that all societies exhibit some sort of schizophrenia in their feelings towards the natural world.
These twin modes are depicted in Figure 2.1. The usufruct mode suggests humans were created before nature and are thus at liberty to modify it. On the other hand the nurture mode states that nature was created before human beings who become stewards of the earth, responsible for its conservation and improvement. An important aspect of both modes is the human responsibility to the creator that involves a sense of wonder and mystery that restrains any tendency to global destruction (O'Riordan 1989: 83).

![Figure 2.1: Human-Nature Relationships](image)

**The Nature-as-Usufruct Mode**: The view that nature was created subject to humans legitimises human intervention with nature. Through manipulating nature both society and nature can be improved. For example the harshness of a desert ecosystem could be controlled through irrigation to enable people to create wealth from it.

This view has its origins in Hebrew and Greek traditions and has continued to be the dominant view of industrial societies (Passmore 1974: 9). The scientific revolution of the sixteenth and seventeenth centuries established a philosophical basis for separating humans from nature and classical science has remained a major western cultural filter. Pepper (1984: 37) recognises three levels at which western science determines our views of nature:

1. at an ideological level it displaces alternative ways of understanding the world, such as myths and folklore.
2. at a theoretical level it explicitly or implicitly embodies particular human-nature relations.
3. at a practical or methodological level it describes relations between the subject (human) and the object (nature).

It is difficult to now conceive the intimacy of a former relationship between humans and nature.

O'Riordan (1989: 84) proposes sustainable utilisation as the modern counterpart to the bright new age of science and technology. Nature-as-usufruct becomes the: "cake-and-eat-it philosophy: carefully handled, nature can provide - and be improved upon so that it can provide - even more" (O'Riordan 1989: 84). So, rather than maximum use of resources, this philosophy offers optimal use.

The Nature-as-Nurture Mode: As an antdote to the above perspective nature-as-nurture introduces the concept of stewardship: that is the belief that people are entrusted with a duty to preserve the Earth's beauty and fruitfulness. The care for the Earth is not necessarily strong but it is persistent - Passmore (1974: 28) aligns the view with that of a farm manager. It represents the civilising or perfecting of nature into more agreeable and intelligible forms.

This mode originates from more conservative Greek and Roman traditions and is subsequently taken up by the American Transcendentalists and European Romantics of the nineteenth century (Pepper 1984: 68, and O'Riordan 1989: 83). Whilst feeling alienated from wilderness, these societies felt comfortable in a domesticated wilderness. Domesticating wilderness, by for instance a garden, is viewed as improving rather than imposing on nature, or "liberating as opposed to a tyrannical mastery over nature" (Passmore 1974: 36). Central to these views is the idea that the world could be improved by conscious planning and management. The task for humans is thus to tend the Earth whilst revering the creator through acts of homage and environmental responsibility. O'Riordan (1989: 84) notes that the contemporary Greenpeace philosophy captures this perspective:

Ecology teaches us that humankind is not the centre of life on the planet.
Ecology has taught us that the whole earth is part of our 'body' and that we must learn to respect it as we respect ourselves.

From these two perspectives emerges a tension that confronts the environmental movement in the contemporary world. O'Riordan (1989: 79) sees it as a tension
between the inevitability of exploitation and the paradox view that there is hope for a better future. From the two fundamental modes suggested, O’Riordan (1989: 84-86) introduces a slightly more complicated picture for the modern situation. *Technocentrism* and *ecocentrism* still account for the main strands of environmental perspectives but each strand is further subdivided into two thought patterns. Each mode has a more radical view (*gaianism* for ecocentrism, and *intervention* for technocentrism) that present strongly opposing world views, and a more conservative perspective (*communalism* and *accommodation* respectively) that share more common ground (O’Riordan 1989: 85).

Contemporary trends in environmentalism have focused on the establishment of this common ground in which the opposing world views feel comfortable. The immediate catalyst for modern environmentalism was a series of crisis scenarios that pointed to the inevitability of exploitation.

**The Contemporary Crises of Environment and Development**

Two distinct crises emerged twenty-five years ago that provide the immediate context to the theme of the current chapter. Firstly an environmental crisis arose, only to be matched by a concern for development itself.

*The Environmental Crisis:* Modern western environmentalism in the 1960s and 1970s was all about crisis thinking on a global scale. Aided with computer technology, doomsday predictions relating population growth and resource scarcity were resurrected from Malthusian reasoning. Neo-Malthusians equated infinite growth in a finite environment to produce a global future depicted by a series of exponential growth curves all leading to catastrophe: "the computer as well as the human had spoken" (Schumacher 1979: 97). These future scenarios could then be colour computer printed and published, containing what O’Riordan (1976: 52) equates to all the elements of a good drama - a suspense-filled plot.

The Ecologist’s *Blueprint for Survival* (1972) and the Club of Rome’s *Limits to Growth* (1972) were first to portray doom. *Limits to Growth* emerged from a technocentric centre of thought (O’Riordan 1976: 57). Global space was conceived in terms of its limitations and the world was categorised by a series of
systems such as population, food, and technology. This global ecosystems approach sorted the confusion in the world into neat and tidy clear sets of data.

Whilst this environmental critique of growth was initially a blow for developmentalists, Sachs (1992: 21) claims that it cleared the ground for the definition of a new development problem: the long term conservation of natural resources. Neat and tidy clear sets of data announcing the indictment of growth were practically compatible with the new problem of conserving resources. Sachs (1992: 21) concludes the outcome appropriately as an introduction to the present context: "... the conflict between growth and environment had been defused and turned into a managerial exercise; development planners now had to think of nature too".

**The Developmental Crisis:** Development became recognised as a problematic concept following several decades of planned development which had resulted in a lack of development. The disillusionment and perplexity towards prevailing development approaches was voiced at several scales. The radical critique questioned the credibility of the capitalist economic and social system, identifying that the link between social progress and economic growth was pure fiction (Sachs 1992: 6). At the other extreme was the view of the world financial institutions, such as that in 1973 of the President of the World Bank:

> Despite a decade of unprecedented increase in the gross national product... the poorest segments of the population have received relatively little benefit... The upper 40 per cent of the population typically receive 75 per cent of all income (McNamara in Sachs 1992: 6).

The outcome of this critique was not to abandon the concept of development, but actually to enlarge its field of application. The realisation that development could cause poverty introduced the notion of *equitable development* (Sachs 1991: 254). It reconciled the irreconcilable: the creation of poverty with the abolition of poverty. Other problems that confronted development were to be solved in a similar vein by becoming the object of special strategies. Thus when the environmental crisis arose, the meaning of development was able to adjust to incorporate the new contradictions.
TOWARDS SUSTAINABLE DEVELOPMENT

The concept of sustainable development has emerged over the last two decades to its popularity in the 1990s. There is no doubt that it is a very agreeable concept in principle, but it is debatable as to what it actually implies in practice. In order to make sense of this concept it is necessary to take it apart and then trace its construction. In its deconstructed form sustainable development resembles the concepts of environment and development. The previous section concluded with these concepts in separate crises but with acknowledgement emerging that although distinct, there existed some sort of relationship of interdependence. This therefore provided a hopeful feeling for the future. This section commences with that optimism by constructing the environment and development relationship into its present conceptual umbrella of sustainable development.

Figure 2.2 outlines the nature of this construction. Environment is portrayed as adding itself on to development in three distinct phases. The temporal scale in

![Figure 2.2: The Path Towards Sustainable Development](image)
the vertical dimension, whilst not as abrupt as the diagram suggests, may be
approximated as the 1970s with the *Stockholm Conference on the Human
Environment*, the 1980s and the Brundtland Report titled *Our Common Future*,
and the 1990s corresponding to the *United Nations Conference on Environment
and Development* (Rio Earth Summit), as the respective categories for the three
central boxes. The environmental component is divided into three distinct
systems that relate to the temporal periods. Physical, socio-economic, and
cultural environmental systems have evolved to strengthen the environmental
relationship with development. While development appears to proceed
unchanged, the intersecting component of each set of boxes illustrates an
evolving 'greening' of development. The concluding box depicts the goal of
sustainable development equivalent to a compromise of the two concepts.

**Stockholm Acknowledges the Physical Environment**

The *Stockholm Conference on the Human Environment* in 1972 is usually
identified as the key event in the emergence of global environmental concern.
The agenda for the Conference was based around the crisis scenarios discussed
earlier, in particular on the concern of Sweden for acid rain. Although not
remembered for the discussion of particular issues, the Stockholm Conference
focused on the environmental problems of industrialisation. So while the focus
of the Conference was global, it was dominated by the classic concerns of first
world environmentalism (Adams 1990: 37). The significance of the Conference
was more symbolic and is commonly referred to as the 'spirit of Stockholm'.
Nevertheless Stockholm did legitimise environmental concerns in international
affairs.

A recognition that the solutions to global resource problems lay in global
resource management linked environment and development in a north-south
context. However this did not command global support, particularly by third
world nations who rejected *no growth* solutions to the neo-Malthusian ideas. The
third world feared that their development would suffer from environmental
protection that was necessary due to environmental degradation in the first
world. The third world elaborated on this north-south context in the
corresponding environment-development debate.
The view of this time was that only resources could be developed, not people or societies. Resources, as part of the physical environment, were consequently connected with development (Figure 2.1). Any concept of sustainable development that emerged concerned the impact of economic growth (development) on the natural resource base (physical environment). While the link between environment and development was established, of the 109 Recommendations for Action that resulted from the Conference, only 8 addressed the link specifically (Adams 1990: 39).

The environment that met development at Stockholm was thus absent of socio-economic theory. However the voice of the third world placed economic justice on par with the concern of the first world for environmental protection (Engel and Engel 1990). Concern for desertification and deforestation that followed the Stockholm Conference added support to the third world voice for socio-economic justice as poverty emerged as not only a consequence, but also a cause of environmental degradation.

**Brundtland and Socio-Economic Systems**

The socio-economic concerns of the third world were acknowledged in the next step towards sustainable development. Environmentalism adopted human welfare concerns in response to the allegations and evidence that poverty was causing environmental decline. Thus growth was presented as a strategy for protecting the environment. This strategy has apparent contradictions with the earlier environmental crisis which identified growth as an environmental problem. Thus the essentially reciprocal links between environment and development were established. The Brundtland Report states these explicitly: "Many forms of development erode the environmental resources on which they are based, and environmental degradation can undermine economic development" (World Commission on Environment and Development 1987: 3).

The report of the Brundtland Commission endorsed a new era of growth:

> We see instead the possibility of a new era of economic growth . . . . And we believe such growth to be absolutely essential to relieve the great poverty that is deepening in much of the developing world (World
Commission on Environment and Development 1987: 1).

Poverty reduces people's ability to use resources in a sustainable manner, it intensifies pressure on the environment . . . . A necessary but not sufficient condition for the elimination of absolute poverty is a relatively rapid rise in per capita incomes in the Third World (World Commission on Environment and Development 1987: 50).

Our Common Future advocates a forceful period of growth with sustainability incorporated as a limit. Ecological concern is incorporated into the concept of development by erecting sustainable development as a conceptual roof. Under this the environment could be both violated and healed (Sachs 1991: 254).

Two key concepts are evident within Brundtland's 'sustainable development' (World Commission on Environment and Development 1987: 43). The first is the concept of basic needs to which priority should be directed. Secondly is the idea of environmental limitations: not ones set by the physical environment itself, but by technology and social organisation. Adams (1990: 171) suggests this came about because developers had continually failed to recognise the social and economic context of farmers' actions. The social sciences were lagging behind the physical sciences, as Culwick notes in Tanzania: "We are now in the rather ridiculous plight of possessing valuable knowledge on the physical side which we cannot apply because we do not know how to" (in Adams 1990: 171). This leads to a subtle but significant shift beyond concepts of physical sustainability to the socio-economic context of development.

Rio Incorporates Cultural Systems

Cultural systems entered the environment-development relationship as global issues sought a local practical context. As representations of social behaviour the cultural context adds on to the socio-economic systems of the previous episode. Acknowledgement of cultural systems has focussed on issues of sovereignty and local/indigenous knowledge.

The integration of people and their attitudes into what Overton (1993: 165) calls a "culture of sustainability" is emerging as a key component in the environment-development relationship in the 1990s. Labels such as environment,
development, global issues, and ecosystems have been applied to the natural world making any specific and local quality fade away. Such language is insensitive to the individuality of a situation (Sachs 1992: 22). It has led to cultural homogeneity being promoted across the world. Sachs (1992: 9) gives examples of deliveries of grain to people who eat rice, and literacy campaigns where the written word is altogether uncommon. The emerging culture of sustainability asserts that cultural homogeneity undermines sustainability because the latter depends on cultural diversity in response to differing local environments (Thomas 1992: 73).

Disregard for the local context used to go under the name of colonialism. Independent states today are seeking sovereignty from global environmental management. Notions of global ecological interdependence challenge national sovereignty. Cairncross (1992) in an article titled Whose World is it Anyway? discusses issues of how, and how much, countries can make neighbours change their ways. Countries have different environmental goals, so a policy may bring large benefit at little cost to one country but have the opposite affect on another. The environmental sovereignty issue particularly affects relations between industrial and non-industrial nations: "Rich countries must beware of imposing their own green standard on their poorer neighbours" (Cairncross 1992).

The Rio Declaration on Environment and Development, as one of the outcomes of the Rio Earth Summit, declared the sovereign rights of nations:

States have . . . the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction (United Nations Conference on Environment and Development 1993: Principle 2).

The recognition that tropical forests are not global property under global environmental standards is evident in the Delhi Declaration of August 1993. This declaration comes from third world countries whose economies depend on the export of timber to a large degree. It states that until they have viable alternatives they will continue to consider their forests as a usable resource (New Zealand Herald 1993).
Locally based or indigenous knowledge is also emerging as a key element in the environment-development debate. Once demeaned as unscientific and traditional, it is now politically popular. Western epistemology, scientific and 'rational', has been used in different cultural circumstances to result in socially irrational practices. Notable here are the many large western development bank projects that have produced unexpected negative outcomes. The current revival in local knowledge is closely linked to these failures.

The *Rio Declaration* again declares this recognition:

> Indigenous people and their communities, and other local communities, have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognise and duly support their identity, culture and interests and enable effective participation in the achievement of sustainable development (United Nations Conference on Environment and Development 1993: Principle 22).

Indigenous knowledge appears to have a lot to offer the environment-development agenda. It supports a bottom-up and local approach along the lines of each culture. The close relationship of many indigenous cultures to nature has also gained respect in the west. However Clarke (1994: pers. comm.) cautions us that the knowledge is local and has often developed in a traditional context so is unlikely to be the total fix-it to problems in the modern context.

Incorporating the environment in development planning implies incorporating cultures and cultural perspectives. In theory it is no longer 'their' culture adapting to 'our' development projects but the reverse. There is now a general awareness that cultural heritage affects approaches to sustainable development. Therefore this latest episode is seeing local cultural strengths reappraising the environment-development relationship.

### The Aggregate Context

Now the historical vacuum regarding the concept of sustainable development has been filled it is necessary to evaluate the ideas included in its current construction. The original concept of environmentalism, which focused on Europe and North America, has broadened its geographical scope to include issues expressed in the third world. As this has proceeded the concept has also
self-consciously appropriated ideas and concepts from other fields. In adopting ideas from the field of development, environmentalism has constructed some common ground which is where the sustainable development concept emerges. Through this bond the appropriation of concepts has become mutual - in theory at least. Development essentially provides wealth creation or growth, while environmentalism provides maintenance or replenishment. Sustainability becomes the accepted mediating term that bridges the two concepts.

There exists a plethora of definitions for sustainable development. 'Sustainable' can mean not only 'prolonged', but 'nourishing'. 'Development' need not be restricted to 'economic activity', but can mean 'evolution', 'unfolding', 'growth', or 'fulfilment' of any or all aspects of life. So in principle 'sustainable development' can mean: "the kind of human activity that nourishes and perpetuates the historical fulfilment of the whole community of life on Earth" (Engel and Engel 1990: 10-11). An opposite definition also drawn from the above set of adjectives is 'prolonged growth'. The ambiguity involved in the concept is obvious. 'Nourishing fulfilment' is genuinely rooted in ethics and points to a true alternative mode of development. The other, 'prolonged growth', is essentially a camouflage for maintaining the economic growth that created the crisis to begin with (Engel and Engel 1990: 10). Perhaps the beauty of 'sustainable development' is that it can mean anything to anyone. But is confusion more productive than clarity?

As it is not possible to describe sustainable development in any analytically rigorous way, it can at least be distinguished from other concepts of development. In practice sustainability emphasises management: "This new reality, from which there is no escape, must be recognised - and managed" concludes the opening paragraph to the Brundtland Report (World Commission on Environment and Development 1987: 1). Environmental management involves users and planners of the environment linked by a set of political resources (Figure 2.3). The upper diagram in Figure 2.3 provides a conception of environmental management before sustainable development: planners are defining the geography of the users. They' operate within the space, and with the technology, that 'we' provide. The lower diagram illustrates the redirection that is necessary under sustainable development: the geography of the users sets the
agenda for the planners. This presents a radical reappraisal of environmental management. In our strive towards an alternative development path we have adopted the rhetoric - sustainability. 'Sustainable development' has replaced 'economic development' and that is a start. Part II will examine how this rhetoric is faring in the arena of action.

ENVIRONMENTAL 'MANAGERIALISM'
(Pre-Sustainable Development)

Environmental Planners → Political Resources → Environmental Users

- Land-use planning
- Technology appraisal
- Structural policies

 ENVIRONMENTAL USERS
defines 'their' space
defines 'their' production systems
defines 'their' market/state links

COLLABORATIVE ENVIRONMENTAL MANAGEMENT
(Sustainable Development)

Environmental Users → Political Resources → Environmental Planners

- Geographical and cultural boundaries
- Indigenous knowledge and ecological adaptation
- Household livelihood requirements

 Figure 2.3: Reappraising Environmental Management
After: Redclift (1987: 158)
2.3 IMPLICATIONS FOR WESTERN CONSERVATION CONCEPTS

Conservation is a policy or practice that is a subset of environmentalism. This thesis focuses on specific tools of the conservation package that relate to nature conservation, and more specifically to protected areas. Protected areas are only one technique for conservation although they are perhaps the most extreme (McNeeley and Miller 1984: 69). The contents of the toolkit complement the broader concepts and ideas outlined in the previous section. So western techniques for nature conservation have run parallel to the reforms in environment-development systems. Nature conservation is today an objective and practical application of the sustainable development concept (World Commission on Environment and Development 1987: 46). As McNeeley and Miller (1984: 720) put it: "Development produces the products of the biosphere and conservation assures that the biosphere will be available for production."

The western toolkit for nature conservation is presented in Figure 2.4. The first box lists the major categories of protected areas as defined by the International Union for the Conservation of Nature and Natural Resources in 1978 (IUCN - although now known as the World Conservation Union), (in McNeeley and Miller 1984: 49-53). Today Biosphere Reserves and World Heritage Sites could be added to this list. The second box describes the general conservation and

<table>
<thead>
<tr>
<th>IUCN Categories</th>
<th>Trends in Objectives</th>
<th>Temporal Shift in Emphasis</th>
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<tbody>
<tr>
<td>I. Scientific Reserve</td>
<td>Strictly protected natural areas with limited human intervention</td>
<td>National Parks</td>
</tr>
<tr>
<td>II. Strict Nature Reserve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. National Park</td>
<td></td>
<td></td>
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<tr>
<td>IV. Natural Monument</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Nature Conservation Reserve/Wildlife Sanctuary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI. Protected Landscape</td>
<td></td>
<td></td>
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<tr>
<td>VII. Resource Reserve</td>
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<tr>
<td>VII. Anthropological Reserve</td>
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<tr>
<td>VIII. Multiple Use Management Area</td>
<td>More flexible protected areas with direct human use and resource development</td>
<td>Integrated Conservation and Development Projects</td>
</tr>
<tr>
<td>IV. Protected Area for Local Use</td>
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</tbody>
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Figure 2.4: Western Toolkit of Nature Conservation Techniques
Source: Author
development objectives for the set of categories. A more detailed matrix of these relationships is provided in Appendix Two. The final box portrays the general temporal trend in establishing protected areas that is of use to this study. That is, the change in techniques from *National Parks* (Category II), to what Wells and Brandon (1992: 1) term 'Integrated Conservation and Development Projects' (Category VIII and IV). This trend is analysed in both a temporal and spatial context. The conservation and development objectives for these three specific categories have been abstracted from Appendix Two and presented in Table 2.1. The major shift in emphasis is shown as a move from strict ecological, scenic and historic objectives, to accept direct and flexible human uses such as food gathering.

<table>
<thead>
<tr>
<th>Table 2.1: Conservation and Development Objectives for National Park and Integrated Conservation and Development Approaches</th>
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<tbody>
<tr>
<td>Conservation and Development Objectives</td>
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<tr>
<td>---</td>
</tr>
<tr>
<td>Maintain sample ecosystems in natural state</td>
</tr>
<tr>
<td>Maintain ecological diversity and environmental regulation</td>
</tr>
<tr>
<td>Conserve genetic resources</td>
</tr>
<tr>
<td>Provide sustenance and/or sport hunting and fishing</td>
</tr>
<tr>
<td>Produce timber and forage on sustained yield basis</td>
</tr>
<tr>
<td>Protect important cultural, historic and archeologic sites</td>
</tr>
<tr>
<td>Protect scenic resources and green areas</td>
</tr>
<tr>
<td>Maintain flexibility through multipurpose management</td>
</tr>
</tbody>
</table>

**KEY:**  ● Primary Objectives  ○ Secondary Objectives  ○ Lessor Objectives  Ø Not Important or Applicable

After: West and Brechin (1991: 8-9) See Appendix Two
The National Park Approach

The manifestation of western conservation concepts in protected areas first occurred in the United States during the late nineteenth century. This coincided with the passing of the frontier era so that conservation movements were able to use politics of scarcity to arouse awareness of natural resource limits (O'Riordan 1976: 38). Both the nature-as-nurture and nature-as-usufruct lines of argument were employed to justify the need for protected areas. John Muir pursued the ecocentric category stressing aesthetic, nurturing and moral reasons for protection:

 Thousands of tied, nerve-shaken, overcivilised people, are beginning to find out that going to the mountains is going home; that wilderness is a necessity; and that mountain parks and reserves are useful not only as foundations of timber and irrigating rivers, but as foundations of life (Muir in O'Riordan 1976: 4).

These somewhat romantic attitudes were contrasted by a technocentric ideology such as that of Theodore Roosevelt and the forester Pinchot (Adams 1990: 18). Roosevelt was an avid hunter and together they preached a strong managerial ethic stressing the control of the environment, no doubt for their own interests, but also for broader commercial considerations of tourism and national prestige (O'Riordan 1976: 5).

These early approaches to nature conservation emphasise the strict protection of both species and habitat. The national park approach to conservation suited these management objectives and has long been the foundation of the western conservation movement. Yellowstone National Park was established in 1872 as the first portrayal of the national park concept. The concept flourished in the western world through to the 1920s when technological advances took away the limits to growth fears that had sustained the concept. The subsequent scarcity politics of the 1960s and 1970s resurrected the approach.

During the decline to this approach in the west, the tool was first extended into the non-industrial world as colonial powers first perceived notions of scarcity in their overseas territories. This employment was centred on concerns for the large hunted African mammals that had captured the imagination of westerners (Wells and Brandon 1992: 1). Africa had its first national park designated in 1925
The notion that people should not live in national parks or consume their resources is synonymous with the United States national park ideal. West and Brechin (1991: 37) note that the British model of a national park allows residents, incorporates ecodevelopment through sustainable use and rural development, and are mainly situated on private as opposed to public land. These therefore fit the IUCN 'Protected landscape' category (Appendix Two) although are labelled 'National Park'. France likewise has 'National Parks' that protect historically human-modified landscapes so require the continuation of traditional land-use practices to maintain their identity (West and Brechin 1991: 101). The IUCN, which is largely responsible for the internationalisation of national parks, has borrowed heavily from the United States concept.

When, in the late 1960s and early 1970s, the environment and development crises emerged, the protected areas movement responded with a 'same as before, only more so' philosophy (McNeeley and Miller 1984: 657). More parks and protection along traditional lines was adopted as the solution for the 1970s. In this decade the reification of the national parks concept flourished. The focus of attention also shifted to the third world. This spread of national parks to the developing world represents "a historical outgrowth of a particular cultural conception" (West and Brechin 1991: 31).

By 1982 at the Third World Congress on National Parks it was acknowledged that this shift in focus required a change in perception. This desire to preserve natural beauty was to be joined by the value of protected areas to "sustain the development processes which Third World countries have begun" (McNeeley and Miller 1984: 10).

Towards an Integrated Conservation and Development Approach

National parks are a product of an urban-based and affluent culture. In such cultures environmental management is generally far from a livelihood struggle. The export of the concept to the third world challenges peoples livelihoods as
national parks confront local socio-economic and cultural systems. Thus the concept has the potential to implicate upon the lives of people living in very different contexts. When poverty emerged as both a cause and consequence of environmental degradation, the philosophy of establishing national parks as 'islands of anti-development' was challenged:

we can no longer confine ourselves to that tried and trusted approach [the national park approach] . . . . There is less and less profit in trying to establish islands in the face of the on-rushing tide . . . . How about trying to adapt our islands to the tide? Or even trying to adapt the tide itself to our purposes? (McNeeley and Miller 1984: 657).

The "on-rushing tide" is development and the ideas expressed in this statement reflect those developed in the earlier section. That is, both changing environmentalism notions to fit development and adjusting development to fit environmentalism (ie. compromising the conservative views of each concept to find common ground).

The World Conservation Strategy (International Union for the Conservation of Nature and Natural Resources 1980) linked the conservation of living resources to the broader concept of sustainable development. Notions of development and well-being extended the narrow philosophical base of conservation. In the typical rhetoric of sustainability the World Conservation Strategy (WCS) welcomed protected areas into the overall fabric of social and economic development, not as islands of anti-development. The notion of conservation was significantly repackaged as:

the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations (International Union for the Conservation of Nature and Natural Resources 1980: para. 1.4).

This definition alters the meaning of natural resource conservation to represent the efficient long-term utilisation of resources. Engel and Engel (1990: 7) note that this is an anthropocentric and technocentric view of conservation. In terms of O'Riordan's categories, conservation now comes in at the accommodating technocentrism level as it establishes common ground with both environmentalism and developmentalism (Adams 1990: 12). This is important when considering the greening of development aid (Chapter Three).
Conservation is now a saving for a later purpose or consumption rather than a saving from, say, extinction (Passmore 1974: 73). This later notion of saving from is now firmly in the realm of preservation and adopted by ecocentric views that are seen as romantic and misanthropic. Conservation is thus in no doubt that civilisation should continue even at the expense of earlier objectives:

We should carefully consider the option of sacrificing selected protection objectives for the sake of a prolific yet fragile species whose various populations have depended on and been a part of the many varied ecosystems we seek to protect: populations of a species for which we should have greater empathy, for they are our common humanity, and therefore ourselves (West and Brechin 1991: 399).

At the same time a moral principle is evident in the WCS: "We are morally obliged - to our descendants and other creatures - to act prudently" (International Union for the Conservation of Nature and Natural Resources 1980: para 3.2). Thus a dualism exists between technocentrism and ecocentrism (O'Riordan 1976), which creates a schizophrenic confusion within the conservation movement and for individual conservationists. Adams (1990: 48) acknowledges that this dualism is no coincidence and is extremely useful. The utilitarian technocratic approach allows conservation to be packaged in a way that is convincing for developmentalists, while on the other hand the moral arguments are attractive to environmentalists in the industrialised world.

Adams (1990: 46) claims that the WCS is "unmistakably the child of 1970s environmentalism, and more generally it bears the hallmarks of much earlier conservation thinking". It does have a 'conservation or disaster' scenario that reflects neo-Malthusian concerns: "The escalating needs of soaring numbers" (International Union for the Conservation of Nature and Natural Resources 1980: i). A strong managerial ethic is pursued through the promotion of National Conservation Strategies and the tool sustainable utilisation is introduced. This is a very rational technocratic notion that states that the rate of harvest must be equivalent to the rate of replenishment, which as McNeeley and Miller (1984: 74) express, equates to "spending the interest and keeping the capital".

Conservation agencies increasingly use the sustainable development concept to claim to represent the true interests of rural people. By themselves conservation
activities are much less attractive. Sustainable development is used to win over
local opposition to conservation objectives (Adams 1990: 184). Yet to the rural
community, conservation can be seen to be yet another form of development. Its
priorities are set from outside the community, in the priorities of national or
international agencies. So conservation proposals may be as alien and adverse to
local interests as any projects.

Sustainable development ideas are increasingly reflected in protected areas
policy which has moved beyond incorporating tolerable development objectives,
to actively promoting development alongside conservation. An emphasis is put
on the inextricable relationship between local people and conservation:

Protected areas will not survive for long whenever local people remain
impoverished and are denied access to needed resources inside Protected
areas. Likewise, local people will sink further into poverty unless they
manage wisely and conserve their natural resources (West and Brechin
1991: 26).

This new philosophy is well encapsulated by the phrase 'looking beyond the
boundaries'. It questions the idea of managing protected areas as isolated from
their hinterlands:

All too often, park managers have felt more comfortable with the black­
and-white ideal of absolute preservation values holding sway on one side of
the line, and alien human activities going their divergent way on the other
side of the line. For sure, a multiple-use approach is "messy", insofar as it
deals with various shades of grey. But the nature does not operate in black­
and-white style. There is nothing so messy as nature, especially the
complex nature of the tropics (Myers in McNeeley and Miller 1984: 659).

The approach that is increasingly adopted to protect natural areas is a
continuation of these ideas. Distinguishing between 'natural' and 'unnatural' is
employed less as local people are incorporated more into the process. Resident
Peoples and National Parks (West and Brechin 1991), People and Parks (Wells
and Brandon 1992), and Designing Integrated Conservation and Development
Projects (Brown and Wyckoff-Baird: 1992) all acknowledge that local cultures
must be more than passive recipients or implementors of the plans conceived by
outsiders. Brown and Wyckoff-Baird (1992: xiv) justify the change in
conceptual approach:

Perhaps the most important lesson learned in development over the last 20
years is that the failure to *equitably* involve project beneficiaries as partners in all phases of project implementation, from design through evaluation, has consistently led to disappointing results.

The philosophy of the new approach to establishing protected areas therefore involves equal partnerships between environmental managers and local people. Projects are based on local initiation, responsibility and authority, and involve local knowledge. This corresponds to the general objective of *Agenda 21* (United Nations Conference on Environment and Development 1993) of finding the local context for sustainable development. The rationale behind local participation is that projects will only be socially sustainable if they expand on existing circumstances and are seen by local people in their own terms as fulfilling a particular need (Wells and Brandon 1992: 42-47). Thus attempts are being made to realise and utilise the strengths of the local culture rather than impose alien solutions.

Under the new name of Integrated Conservation and Development Projects (ICDPs) the distinction between the concepts of development and conservation is less black-and-white. The difference between an environmentally sound development project and an ICDP is that development objectives are the means rather than the ends within an ICDP (Brown and Wyckoff-Baird 1992: 10). The development component is used to reduce or deflect utilisation pressures on protected areas and on the natural resource base in general. Brown and Wyckoff-Baird (1992) outline three different targets for socio-economic development:

i. improve natural resource management outside the protected area;

ii. provision of social services as part of a contractual agreement; and

iii. 'protective enterprises', such as ecotourism, to diversify the economy.

The relationship between these benefits and the action of conservation must be as direct as possible with all material benefits tied *clearly* to conservation action. Once this is practical then conservation objectives are linked with development objectives.
2.4 SUMMARY

The 'setting aside' of protected areas under the national park philosophy creates a 'them-and-us' syndrome. This corresponds to the development-environment dichotomy that has been prevalent since the 1970s. As development and environment have sought common ground the division between 'natural' and 'unnatural' has faded. The western conservation concept, as expressed in certain settings, has moved into the main arena of human affairs.

The construction of both the broader western concepts of environment and development, and the subsystems of nature conservation and protected areas, has coincided with the internationalisation of these concepts. The extension of these ideas into practice in the third world has demanded a shift in their conception. Development and environment, and 'natural' and 'unnatural' are not practically or conceptually as distinguishable in third world societies as they are in western countries. Therefore the merging of the two as concepts in the western world, complements the extension of the practice into the third world. Yet still the concept of a 'conservation area' remains predominantly a western cultural ideal. The transfer of this into a new cultural setting is proceeding at the same time as the value of the new cultural context is being acknowledged in the west.

International aid represents one means by which the transfer of western conservation ideas into practice in the third world is occurring. The philosophy and motives behind aid transfers sets the agenda for conservation aid flows.
Chapter Three

Development Aid and the Environment

International aid is an important vehicle for transferring resources from industrialised to non-industrialised nations. Material transfers are dominated by capital, technology and personnel. Related to these resources are a set of ideologies that accompany the visible transfers. Sustainable development is such an ideology. As environment and development concepts merged (Chapter Two), existing development aid adopted environmental principles. This theme, often referred to as the 'greening of aid' (for example Conroy and Litvinoff 1988), now manifests itself in the delivery of aid to the third world.

3.1 THE PHILOSOPHY OF AID

Foreign assistance, or what was once called aid, as a concept belongs firmly to the post-World War Two era. In 1944 the Bretton Woods Agreement aimed to bury the nationalistic protectionism that was blamed for the Great Depression of the 1930s (Swift 1994: 5). Essentially this involved the establishment of an international financial system based on the free movement of capital and goods with the United States dollar as the international currency. The rebuilding of Europe under the Marshall Plan following World War Two was the first major example of international aid. Following its perceived success, the Bretton Woods system moved on to the wider task of assisting newly independent third world nations.

Today aid generally refers to "transfers of resources from governments or public institutions of the richer countries to governments in the Third World" (Hayter and Watson 1985: 6). The sources of aid in the richer countries fall into three basic categories: bilateral, multilateral, and non-governmental aid. The first two types of aid are known as ODA, meaning 'official development assistance', and derive from governments, either directly - bilaterally - or through international agencies - multilaterally. Non-governmental aid on the other hand derives from voluntary aid organisations such as Oxfam.
The purpose of foreign aid is to supplement the domestic savings effort of nations and thereby raise the rate of investment by the amount of the capital inflow (Griffin 1986: 38). This, in turn, should result in a faster rate of growth of output and income and in a redirection in the incidence of poverty.

Yet aid is not given proportionately to those who need it most and there is a huge difference between eradicating poverty and promoting development: "Donations to a beggar or an invalid are distributed on bases and criteria very different from loans to promising young people for their training or for the setting up of businesses" (Bauer 1971: 255). So in order to understand the philosophical basis of aid the bases and criteria that motivate donors must be examined. Furthermore, Todaro (1989: 485) points out that it is also essential to understand why third world countries accept aid and what they believe it will accomplish.

**Donor Motives:** Donor countries give aid primarily because it is in their political, strategic, and/or economic self-interest to do so (Todaro 1989: 485). This is a widely acknowledged and remarkably little disguised phenomena:

- the underlying principle of aid . . . is that you give away a little to make sure that you can keep a lot more (Hayter 1989: 22).

- most government to government giving takes place when a past, present or likely future need of the donor is congruent with a similar need of the recipient (Crocombe 1992: 69).

There is some altruistic giving to nations whom donors have no connection. Whether for humanitarian motives, or from a sense of guilt, Crocombe (1992: 69) notes that this type of aid is usually voluntary or given when the media is present such as during disaster relief. Consequently humanitarian assistance does not often correspond to long-term aid. Aspects of humanitarianism may also be argued if aid is considered as a less violent alternative method for promoting political and strategic objectives (Hayter and Watson 1985: 239). However when one also considers that many of the governments supported are authoritarian, often military, regimes of a repressive nature, the humanitarian motive crumbles. Donors are also motivated by a feeling that they have a moral obligation to support development. Todaro (1989: 490) expresses this as "conscience money" for past colonial exploitation. The two major categories of foreign aid
motivations for donors are however political and economic.

Political motivations dominate foreign aid strategies. For instance, President Kennedy said in 1961 that "foreign aid is a method by which the United States maintains a position of influence and control around the world, and sustains a good many countries which would definitely collapse, or pass into the Communist bloc" (Hayter 1971: 5). Such motivations explain why more American aid has gone to South Vietnam than to any other country.

The view that by directing aid through multilateral institutions lessens the political influence of donors is also suspect. Political interference is common, either openly or hidden, in most multilateral agencies. The largest multilateral donor - the World Bank - is debarred from taking political considerations into account and must not interfere with domestic policies. Yet Hayter and Wilson (1985: 201-202) note the Bank's biased attitude to left-wing governments, pointing to the withdrawal of Poland and Czechoslovakia when it became clear that they would not receive any loans. In fact the World Bank will not discuss a lending programme unless it is satisfied with a country's general policies: "the Bank must now approve both the project and the country before it decides to make a loan" (Hayter 1971: 51).

Another example of the heavily political influence of major donors, or multilateral agencies, was the withdrawal of the United States from UNESCO (United Nations Education, Scientific and Cultural Organisation) when it disagreed with its policies. The United States had originally brought politics into UNESCO in the 1950s when independent experts within UNESCO were replaced by government representatives at the United States' request. The organisation then went on to discuss issues such as the Korean War. In 1975-76 the United States withdrew its payments to UNESCO because UNESCO took sanctions against Israel. Finally in 1984 the United States withdrew from the organisation altogether complaining of "excessive politicalisation" and of an "un-American ideology" within UNESCO (MacKenzie 1984: 8). The ambitious funding of disarmament studies was one such "un-American ideology".
Commercial opportunities for donor countries heads the economic motivations and self-interest of giving aid. Between one quarter and a third of developed countries exports go to the third world (Hayter and Watson 1985: 241). This in itself presents long-term motivations for providing the third world with foreign exchange to import goods. However there exists much more immediate economic motivations for foreign aid. Firstly foreign aid in the form of concessional loans is amounting to a net transfer of interest and repayments to the donor countries. Since the net transfer of financial resources reversed its flow in 1983 until 1990, the third world financed donor countries to the tune of US$178 billion (CORSO 1994: 2). This makes the labels 'donor' and 'recipient' somewhat ambiguous and has contributed to a debate on the definition of aid in the Pacific islands:

I have argued elsewhere that there is no such thing as aid. ... since aid has achieved the complete opposite of its stated aims, it is no longer aid. We should either adopt a new term for the resource distribution represented by it, or we should give it a new and more honest definition (Hau'ofa in Hooper et al. 1987: 10).

Secondly large proportions of foreign aid are spent on goods and services from the donor nation. So foreign aid money may never leave the donor country, as noted by a former United States aid official:

The biggest single misconception about the foreign aid program is that we send money abroad. We don't. Foreign aid consists of American equipment, raw materials, expert services, and food - all provided for specific development projects which we ourselves review and approve. ... Ninety-three percent of AID [United States ODA programme] funds are spent directly in the United States to pay for these things. Just last year some 4,000 American firms in 50 states received $1.3 billion in AID funds for products supplied as part of the foreign aid program (in Todaro 1989: 489).

Indeed many aid agreements stipulate that purchases or consultancies must be 'tied' to the donor country. The New Zealand ODA programme (NZODA) does not explicitly 'tie' aid to New Zealand goods and services, but is nevertheless given with the sure knowledge that the money will be spent mainly in New Zealand. It is estimated that approximately 70 percent of NZODA is repatriated in some way or another (Crocombe 1992: 70). Therefore the benefits to the recipient may be secondary to the economic advantages within the donor country itself.
Why Less Developed Countries Accept Aid: The liberal consensus on
development aid is that it is indispensable to the recipients (Bauer 1971).
Third world countries have tended to accept this proposition uncritically - that aid is an
essential ingredient in the development process. Todaro (1989: 490) concludes
this argument: "... the economic rationale for aid in LDCs [less developed
countries] is based largely on their acceptance of the donor's perceptions of what
they, the poor countries, require to promote their economic development". So
conflict over aid usually focuses on amounts of aid rather than the role of aid.

The fact that ODA is channelled through governments and not people presents a
political motive for recipients of aid. Aid projects may offer short-term economic
and material benefits that assure government re-election, or alternatively may
offer military security to suppress opposition. Furthermore aid enables
governments to disguise unwise expenditures.

Foreign aid is therefore at best mutually beneficial to donor and recipient. Moral
motivations of giver and receiver are of minor importance compared to
economic and political motivations. ODA and voluntary assistance often differ
in this motivational hierarchy. In the manner of 'the one who pays the piper calls
the tune', aid donors are in a commanding position in the relationship. Rich
nations determine the nature of development aid which is evident when the
environment enters the development agenda of these nations.

3.2 THE GREENING OF DEVELOPMENT AID

Crises of development and environment have been catalysts for the reform of aid
packages. These reforms run parallel to the evolution of sustainable development
presented in the previous chapter. Consideration of the environment has
progressively become more prominent in development assistance. While the
reforms have altered the face of aid, it is doubtful that the philosophical basis for
aid has changed at all.

The Environment as a Special Interest Component

Awareness of the environmental consequences of aid projects surfaced in the
1960s. The poor and the environment were identified as being marginalised under the neo-classical structure built at Bretton Woods (Thomas 1992). Consequently poverty-focused aid became the rhetoric in the early 1970s along with environmental assessment procedures for aid projects.

When environmental considerations reached the agenda of aid agencies, these organisations were dominated by economists and planners. Consequently the environmental component of aid was largely viewed as a special interest rather than an integral component of the project cycle (Carew-Reid 1989: 41). Although many aid agencies committed themselves to deal with the environmental impacts of their development projects, in reality these organisations did not have the experts to identify subtle or delayed impacts. While this restrained the implementation of environmental policies at the project level, programmes were implemented at the macro-level of head-office.

The phrase "rhetoric and reality" (Hayter and Watson 1985) describes the situation of the environment in development aid for this early period. As an example, the World Bank, upon appointing an Ecological Adviser in 1970, instructed them to "review every project for its consequences on the environment" (in Carew-Reid 1989: 147). This is great rhetoric that in reality a single adviser (from a total staff in excess of 4000) could not possibly achieve. The creation of an Office of Environmental Affairs and 4 new staff in 1973, was again recognition of the theoretical considerations at the macro level, but did little to ameliorate the reality of environmental impacts at the project level.

Environmental assessment procedures entered the bilateral realm of aid agencies in 1975 following legal action by environmental groups against USAID (United States Agency for International Development). Formal assessment procedures were immediately adopted by USAID but again the quality of these assessments was questionable. The Brandt Report on developed-underdeveloped world relations, again promoted environmental impact assessments (EIAs) to "ensure that an ecological perspective is incorporated in development planning" (Independent Commission on International Development Issues 1980: 115).
In the late 1970s environmental considerations in aid projects were to remain as special interest components but were separated from development projects. The World Bank in 1975, followed by USAID in 1977, moved beyond environmental assessment of their activities to direct investment in 'environmental specific' projects (Carew-Reid 1989: 147-148). Such projects concentrated on soil and forest conservation, corresponding to the rural-poor focus of 1970s foreign assistance.

Environmental specific projects appear more favourable to aid agencies. They allow a portion of resources to be directed toward environmental projects while the remainder, and the majority, can be channelled along traditional development lines. Within nature conservation this permits the 'islands of anti-development (protected areas) within a tide of development' scenario presented in Chapter Two. Aid agencies are politically motivated to pursue this approach. Donors could point to environmental projects such as national parks and immediately see the benefit of a pleasing forest. This contrasted with the often subtle and long-term environmental benefits of many EIA procedures. Also, by separating environment from development projects, it allows donors to quantify their environmental expenditures. For instance, the British ODA claims its commitment to environmental projects increased from 15 to 28 percent of total financial assistance between 1984-1987 (Carew-Reid 1989: 59).

Structural adjustment policies pursued throughout the 1980s failed to account for environmental costs of development. So despite the progress of environmental specific projects the documentation of the adverse environmental impacts of development projects increased exponentially (Redclift 1987: 145-146, Hayter 1989: 39-45). The World Bank financed projects have been particularly severely criticised by The Ecologist in five issues in 1985 and 1986. Environmental impacts from road building, deforestation, transmigration schemes and dam construction are well recorded in these reports. It is claimed that the donors were fully aware of the environmental problems of these projects but when the problems affected the economic validity of the projects, they were dismissed as unrealistic (Redclift 1987: 146). As the gap between rhetoric and reality of green aid was exposed, the concept of sustainable development was introduced as the new rhetoric in the aid project cycle.
The Environment as an Integral Component

Critiques of the environmental policy of aid agencies have tended to merge into the wider advocacy of sustainable development. The Brundtland Report (World Commission on Environment and Development 1987) appears to have had an impact on aid agencies who now present their aid policies more explicitly (Adams 1990: 165). In the words of Brundtland, "sustainable development creates the need for even greater international aid and cooperation" (World Commission on Environment and Development 1987: 313). Just as the notion of sustainable development rescued the concept of development, it has offered a new lease of life to development assistance.

Grasped by "accommodators" (O'Riordan 1989), sustainable development is a comfortable arena for aid and development professionals. Consequently many institutions have responded rapidly to the new language of sustainability. For instance the World Bank created a major environment department and 4 regional environmental offices with 40 new staff in 1987 (Adams 1990: 163). New environmental criteria for aid projects have been adopted by lenders. Essentially there are three components to this environmental policy: specific projects for upgrading the environment, strict environmental assessment procedures for conventional aid projects, and measures to strengthen the capacity of developing countries to deal with environmental issues (Carew-Reid 1989: 49).

At the macro-level these policies have been implemented by a number of aid agencies. For example the New Zealand ODA programme states in its environmental policy:

all NZODA policies and programmes should be environmentally responsible. The central policy objective is to promote environmentally sustainable development . . . . A number of NZODA projects are specifically targeted at strengthening the capacity of developing countries to anticipate, identify, assess and resolve issues of environmental protection and rehabilitation" (Ministry of Foreign Affairs and Trade 1993: 11).

Of the three policy components, specific environmental projects have attracted the most attention at the micro-level of aid delivery. These projects increasingly incorporate the wider concepts involved in sustainable development and so are not as environmentally specific as many earlier projects. For instance, forestry
and watershed management have a specific sustainable development concern yet also fall into the classic area of development assistance. They could either be classified as environmentally specific projects or conventional development projects with strict EIA procedures. Therefore as sustainable development has entered aid philosophy, it has conveniently smudged the boundary between environmental and developmental projects.

There is no doubt that there has been a 'greening' of the rhetoric of development aid. It is now necessary to examine how this rhetoric is being geared to the reality at the micro-scale through aid delivery. Does the capacity of aid agencies allow them to put the theory into practice?

3.3 THE DELIVERY OF GREEN AID

"For donors the real issue is delivery rather than performance" (Connell 1988: 77)

Multilateral and bilateral agencies have dominated the delivery of aid to the third world. This is generally government to government assistance that has often bypassed the people. Non-government organisations (NGOs) have had pronounced impacts on the policies of these large donors, but until recently have remained isolated from the delivery process itself. The type of assistance pursued has tended to be large scale project aid - often infrastructural developments. Such projects are capital intensive and have involved massive transfers of money. Have these aspects of aid delivery responded to the reforms described in the 'greening' of aid?

Agency Networking

The three main types of aid organisation have their own characteristics which influence their inclination and ability to take on the new policy direction discussed above. Large multilateral development bureaucracies are inherently slower at reforming than small voluntary organisations. At the multilateral level it has been common to establish separate agencies to channel environmental aid. The United Nations Environment Programme (UNEP) as part of the United
Nations, and the Global Environment Facility (GEF) under the administration of the World Bank, are examples of specialist institutions. At the ODA level it has also been common to involve external consultants and NGOs in making up for a shortage of skills in areas such as ecology.

The networking of aid agencies in the delivery of aid was pushed by the Brundtland Report (World Commission on Environment and Development 1987: 328) and reinforced at the Rio Earth Summit through recognition of NGOs as partners in the implementation of Agenda 21: "independence is a major attribute of non-government organisations and is the precondition of real participation" (United Nations Conference on Environment and Development 1993: Chapter 27). The ability to be innovative, cost-efficient, and committed to analysis at the local level has increased the delivery role played by NGOs. The World Bank values NGO participation, being "particularly useful in monitoring environmental quality, in early monitoring of impending problems, and in involving local citizens in an informed manner" (Goodland 1990: 151). Under the GEF, subject to host government approval, NGOs can submit project funding proposals. Some have already done so (Thomas 1992: 88). In the delivery of aid, NGOs are also networking with agencies in developing countries. The Swedish Society for Nature Conservation (an NGO with a project reviewed in Chapter Six of this report) cooperates with and supports about 40 environmental organisations in the third world (Laquist 1992: 29).

NGO networking in pursuit of sustainable development is leading to partnerships between traditional development NGOs and environmental NGOs. For example, in the Solomon Islands a local development NGO, Solomon Islands Development Trust (SIDT), is cooperating with two international conservation NGOs, New Zealand's Maruia Society and the Washington D.C. based Conservation International, in the delivery of a number of rural projects (Lees 1992b, Conner et al. 1993). SIDT's experience in village level development combines with the conservation expertise of the international organisations. This is resulting in the developmental NGO having to adopt conservation criteria, and the conservation NGOs compromising their traditional objectives to include socio-economic concerns of local people. While these socio-economic criteria may not go far, for instance Weaver (1993: pers. comm.) argues that the social
arm of Maruia Society is largely right wing in its concerns focusing on issues such as land ownership, these organisations have nevertheless adapted from traditional conservation backgrounds.

It is important to note that the delivery of aid is usually linked to established political structures and is to a degree dependent on recipient country/government support. Recipients may not agree to environmental conditions of donors and may search elsewhere for development finance which suits their priorities. Adams (1990: 166) suggests that the power of donors is often exaggerated with it remaining an open question as to how much aid agencies can actually influence the course of development projects. So the capacity of aid agencies to take environmental factors into account varies just as their desire to do so does. Recipients, as much as donors, require convincing about the benefits of environmental initiatives. By western standards many Pacific island governments are conservative and the Henderson Report, which reviewed NZODA to the South Pacific, mentions the challenge of "convincing [these] governments of the value of biological diversity" (South Pacific Policy Review Group: 1990: 178),

**From Project to Programme Delivery**

The old style of aid delivery is a shopping list approach to specific projects. These projects tend to be large and prominent which stand as "monuments to donor generosity" (Griffin 1986: 43). Such projects not only favour large over small operations, but new fixed investment over using the existing capacity more efficiently. This is still happening leading to "a serious gap in programme lending - that is, providing flexibly usable funds which are not tied to specific investment projects" (Independent Commission on International Development Issues 1980: 232).

Recently there is occurring a shift from specific project aid to less specific programme aid. The rhetorical shift is evident at the macro-level of the NZODA operation when in 1987 the annual account summary changed its title from "Project Profiles" to "Programme Profiles". Conventional programme aid may include balance of payments assistance and budget support. Environmental
programme aid includes environmental profiles, ecological surveys, and national environmental management strategies. The shift to environmental specific aid has, in some agencies, led to an increased emphasis on such information gathering tools. USAID is preparing 'country environmental profiles' for every country in which it is active, the World Bank is producing 'environmental issue papers', numerous bilateral agencies are contributing to National Conservation Strategies, and the South Pacific Regional Environment Programme (SPREP) is focusing first on 'state of the environment reports' which will then become National Environmental Management Strategies (NEMS). The purpose of these tools is to gather environmental base-line data which can then be integrated into the wider operations of the aid agencies. They also identify priority environmental projects for donors.

Another tool increasingly applied to aid delivery is the development of lists which categorise projects according to their potential significance for the environment. The lists relate to how much environmental assessment is required for different project proposals. When applied systematically this approach fully integrates environmental concerns into development aid. However as Table 3.1 indicates, most bilateral agencies in 1989 did not apply lists systematically, still taking an ad hoc approach to environmental assessment (Carew-Reid 1989: 61). Environmental audits do have a problem in that they often check the process of a project rather than actually investigating for environmental impacts in the field itself.

The shift from project to programme aid is evident in the three case studies analysed in Chapters Five to Seven. Beginning with a purely conservation project approach, conservation assistance to Western Samoa has moved to more general conservation and development programmes. The NZODA's Environmental Support Programme, GEF's South Pacific Biodiversity Conservation Programme, and USAID's Biodiversity Conservation Network represent assistance targeted beyond the project level at this more general programme level. The arrival of programme-based assistance has initiated an apparent global willingness to pay for environmental protection through aid delivery.
Table 3.1: Integration of Environmental Procedures within Selected Aid Programmes

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After: Carew-Reid (1989: 62)

Money Leads the Way

I'm scared of big money, which always means big destruction, big social disruption and inevitably corruption. What we need instead is a change in attitude - with all the right attitudes we could be needing less money, not more (Jose Lutzenberger in Tickell and Hildyard 1992: 18).

Jose Lutzenberger, Brazil's Special Secretary for the Environment, spoke these words days before his sacking in March 1992. He was referring to the enormous 'green' funds which were descending on Brazil under various auspices: from the G7 group of nations, the European Community, and money anticipated from the United Nations Earth Summit. The fact is that aid delivery focuses on money. There exists an unchallenged assumption, even by NGOs, that capital is a prerequisite for addressing environmental degradation. This is articulated at the global level: "objectives of Agenda 21 will require a substantial flow of new and
additional financial resources to developing countries" (United Nations Conference on Environment and Development 1993: 15). Debates tend to focus on how much money is required and how to effectively channel this money (for instance United Nations Conference on Environment and Development 1993: Chapter 33).

In this respect, the delivery of 'green' aid is no different from the delivery of traditional development aid. Capital continues to be moved to the developing world with little debate over whether the transfer is necessary or desirable. Recent examples of 'green funds' include the US$600 billion estimated budget to achieve the goals of Agenda 21 (United Nations Conference on Environment and Development 1993) and the US$580 million of GEF projects commissioned in the fiscal year of 1992 (World Bank 1992: 21). This focus on transferring funds faces the danger of failing to recognise the dilemmas of traditional aid:

> If the conditions for development other than capital are present, capital will soon be generated locally, or will be available to governments or to businesses on commercial terms from abroad . . . . If these other conditions are not present aid will be necessarily unproductive and, therefore, ineffective. If the main strings of development are present, material progress will occur without foreign aid, if they are absent it will not occur even with aid (Bauer 1971: 252).

### 3.4 SUMMARY

Development aid agencies have undergone reform at the institutional level in response to environmental concerns. The degree of reform varies between agencies. Some have found it simpler to divert funds to environmental projects on an *ad hoc* basis rather than address the need for environmental assessment as an integral part of agency operations. The rhetoric and terminology of sustainable development has been universally adopted. Supported by 'green funds' and with a new set of aid tools, donors are delivering assistance in a new collaborative approach. At the macro-level in aid offices the reforms appear to be productive. But what does environmental aid mean to the supposed ultimate beneficiaries of such programmes - the local population? How does the rhetoric of donor development agencies translate to the reality of practice at the local recipient level?
Since its inception in the early post-war years, the central argument of foreign aid has been that without it third world countries cannot progress at a tolerable rate, or at all. But economic development depends on social, cultural, and political factors as well as the more conventional economic and physical factors. The local context of these factors needs to be established before the impact of aid programmes is considered. Thus the aid component of this thesis must move from the delivery of aid to measure the performance of aid.
Chapter Four

Western Samoa

First Impressions

My first vision of Western Samoa was from an aircraft window. Immediately the 'islandness' of the country was appreciated. Having flown during the night the island of Upolu appeared as sparse clusters of village lights within a gigantic black ocean. Inside the airport terminal the mysteries of the Samoan culture were evident. Baggage trolleys invariably contained the products of the west: boxes labelled with NEC, Toshiba, Sony, and the like. Likewise the Samoan travellers were decorated with ula (necklace of flowers) of sweets as gifts for children. Leaving the terminal for the half hour journey to the capital of Apia, challenges the western concept of time. It is 2am but there is little evidence of that. The airport is obviously bustling but throughout the trip to Apia there is also plenty of activity: people sitting in fales (Samoan houses) talking, others strolling along the road, more singing in a huge church. The north coast is the most populous so the drive to Apia is through a constant string of villages. Initially Apia itself is indistinguishable from the other villages. Western-style buildings, many in a dilapidated condition, eventually signal the centre of Apia. The market is immediately visible with a variety of produce and sellers but, not surprisingly, few buyers at 2.30am. The bus stopped at two high class hotels where the majority of the ten or so palagi tourists on board were to stay, before dropping me at my destination.

These initial impressions set the context for a personal introduction to life in rural Western Samoa. Several authors, including O'Meara (1990), describe Samoan life vividly. My purpose here is to give a picture of life as I observed it during my research. I will describe a 'typical' day in a Samoan village.

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1. Palagi (abbreviated form of papalagi) literally means 'heaven bursters'. It was the Samoan name given to the first European people to come to Samoa. Of old the Samoans thought the heavens began at the horizon. So when European boats appeared on that horizon the term palagi was adopted as the visitors had literally 'burst from the heavens' (Turner 1861: 103). Today palagi refers to people of European origin and their descendants. Therefore it includes the Pakeha people of Aotearoa, as well as European descendants in Australia and North America.
The Village Scene

The day begins early in a village. Soon after dawn people make the most of the day before the heat sets in. Elder people commonly start in the gardens and on the lawns with weeding and cutting. Men often head off to the plantations at this time for a morning's work while women tidy the *fale*, rolling up sleeping mats, pulling up blinds, folding bedding away, and sweeping the floor. Children rise slightly slower but are soon picking up rubbish, feeding the pigs, and getting ready for school. Elder children, especially girls, help the younger ones get their clothes and have a wash. With only one open room in most *fale* it is difficult to avoid the activity. I would usually put on a *lavalava* and join the children by having a wash. Washing either is by a 44 gallon drum of rain water beside the *fale*, or a swim/wash in a cold freshwater spring pool beside the ocean.

Samoans do not eat breakfast. However, with a guest staying someone prepares either tea or *koko Samoa* (pure cocoa drink), and *esi* (papaya), crackers with a sugary syrup, or pancakes. On other occasions the first meal of the day is eaten about 11am and consists of either one or a combination of *ufi* (yams), *ta'amu* (giant taro), banana, rice (as a substitute for taro which had been destroyed by a blight), canned fish, or fresh fish.

Visits to the major towns of Apia on Upolu, and Salelologa on Savai'i, are common. The major purpose of these trips is to buy or sell produce or to engage in paid employment. Other reasons include entertainment, visiting hospital, collecting mail and going to the bank (these later two are often related as people would bank money orders which come via the post office from overseas remittances). Buses are the major mode of transport from *i tua* ('the outback', as rural areas are commonly called) to 'town'.

In the afternoon men drift back from the plantations, children from school and others from 'town'. Many people take a rest in the mid-afternoon. Women (especially elder women) spend some time weaving either sleeping mats, *ietoga* (fine mats), or coconut leaf baskets. Likewise elder men weave rope used for a variety of purposes, from constructing *fales* to decorating *kirikiti* (Samoan cricket) bats. Before dusk there is invariably a game of *kirikiti*, volleyball, touch
rugby or soccer. Both females and males partake in these games equally. Fishing is also undertaken in the afternoon or in the evening with torches and spears.

Evening meals are similar to lunches. Cooking is usually done on an open fire burning coconut husks. Imported turkey tails and mutton flaps are extremely popular to the disgust of palagi like myself. Almost every village has a store where goods such as these can be purchased.

Lotu (prayer) is delivered before most meals and denominations in some villages observe lotu curfews for approximately 20 minutes in the early evening. This must be spent sitting in your fale with the more enthusiastic singing. Sunday is strongly distinguished from a 'typical' day with religious observations dominating the day's activities.

Samoans finish their day at all sorts of times. Sleeping mats, mosquito nets and sheets are laid out on the floor. If there is a bed in the fale this is for either the grandparents or palagi guest, if it is used at all. One friend had a double bed next to which he had his sleeping mat complaining the bed was too soft to sleep on.

The villages in which I conducted my research are displayed in Figure 4.1. Saleilua, Tafua and Sasina constitute the centres of the three case studies (Chapters Five-Seven). Each of these villages is adjacent to or incorporated within a protected area project. For an outsider like myself to enter a Samoan village for the purpose of research, a connection within the village is desirable. Hence these three particular villages were selected as they were the first villages within the vicinity of the projects in which I established a connection. I lived within each village during the course of the field research.

The location of these villages dictates the degree to which they conform to the 'typical village' daily pattern described above. A continuum of remoteness would have Saleilua as least remote, Tafua as most, and Sasina somewhere in between. Some more general characteristics can be gauged from this simple relationship. In Saleilua more people are engaged in paid employment, often in Apia which is only 30 minutes away by bus, but also in nearby schools and a hospital. Tafua at the other extreme is 5 km from the main road with no bus service and lacks both
Figure 4.1: Location Map of Western Samoa and Relevant Villages
paid employment opportunities and basic infrastructure. As yet water and electricity services do not connect to Tafua. Sasina lies further from the main town of Salelologa than Tafua, yet has stronger connections with other areas due to its location on the main coastal road. Having briefly established different contexts for each of these villages, the pattern of a 'typical' day described earlier is still experienced in Saleilua, Tafua and Sasina.

Geographical Introduction

The geography of Western Samoa encompasses two main islands and several smaller ones (Figure 4.1). The total land area of 2820 km\(^2\) is dominated by the islands of Savai'i and Upolu. The topography is rugged and mountainous and characterised by steep slopes descending from volcanic crests. Forests still cover the interiors of the two main islands which rise to 1848m in Savai'i and 1100m on Upolu. Approximately half the coastline is bounded by coral reefs.

The climate is hot and humid with an annual average coastal temperature of 26.5°C. Annual rainfall varies between 2500mm in the northwestern rainshadow regions to 6000mm in the highlands of Savai'i. Tropical storm patterns affect Western Samoa with a cyclone season from December-February.

The total population recorded in 1991 was 161298 persons (Department of Statistics 1993b). These are predominantly indigenous Polynesians and live mainly along the coast in over 320 villages. Approximately 35000 live in the villages within the capital city of Apia. Traditional social and cultural institutions are strong and driven by fa'a Samoa (the Samoan way of life). The basic social unit is the aiga (extended family) which are headed by matai. Village affairs are controlled by a fono (council of matai) which contrast to the Westminster-style central government based in Apia.

The four types of land ownership in Western Samoa are dominated by the 81 percent held in customary title. A growing trend in customary land tenure is the increased individualisation of customary land, that is, land is passed directly from parents to their children.
Western Samoa's economy is dominated by subsistence agriculture which supports about 75 percent of the total population. 'Subsistence affluence' is often used to describe the economy indicating a resource base that permits a level of consumption beyond subsistence. However it is increasingly evident that people are aspiring to higher levels of living not readily within their immediate means. Consequently foreign aid and remittances from Samoans working overseas are filling this gap. Today even the most remote village is dependant on the outside world. O'Meara (1990: 8) warns against romanticising over the 'subsistence affluence' economy: "Once the romantic beauty of the seashore and the thatched roofs is left behind, much of Samoa looks like other Third World countries".

The particular geographical characteristics relevant to this thesis require more detail. Long-term characteristics combined with recent changes make Western Samoa an appropriate local context in which to explore the global issues discussed in the previous two chapters.

4.1 THE SAMOAN ENVIRONMENT

Past Ecological Relations Between People and Place

The pre-historic inhabitants of the Pacific islands practised intelligent conservation, and used technologies adequate for those times; but they also depended on the sanctions of social customs to be successful. Conservation seems to have been almost entirely "economically" oriented, producing crop surpluses which were needed for ceremonies, military campaigns . . . and storm-induced famine (Birandra Singh in McNeeley and Miller 1984: 310).

Traditional human-environment relations are well documented for the Pacific islands as a group, for example by Clarke (1977, 1978, 1986, and 1990), Johannes (1978), Klee (1980, and 1985), Pernetta and Hill (1984), Eaton (1985a, and 1985b), Thomas (1989), and Dwyer (1994). There is less documentation specifically on Western Samoa but Watters (1958) and Fox and Cumberland (1962) provide indications of early environmental knowledge. Two themes in traditional environmental practice are reported in these documents. One is the distinction between inadvertent and recognised environmental practices. The
second is the difference between the idea and the reality of what actually occurred to environmental systems.

Many past practices have had the effect of conserving resources and appear to be efficient environmental management tools. Such practices may be claimed to indicate a traditional environmental ethic among indigenous Pacific peoples. Cox and Elmqvist (1991: 319) comment on the "deep commitment to conservation" in many Pacific cultures, and Elmqvist (1993: 11) on the "Samoan traditional conservation ethic". Much of this writing depicts the people as "conservationists". Dwyer (1994: 91) asserts this as a "romantic" image promoted by urban-based conservationists and advocates of indigenous rights, and he claims that resource management systems of indigenous people differ from western conservationists in "context, motive and conceptual underpinnings".

The ecological functions of past practices are commonly stressed at the expense of sociological explanation (Clarke 1977: 367). For instance Johannes (1978: 353) stresses the "traditional conservation practice" of releasing fish from nets when the catch is large. A sociological explanation would stress that this practice occurred because the catch was greater than the capacity to consume or store the fish. Eaton (1985b) notes that temporary bans on hunting coincided with the taro planting season while some species are not hunted by particular individuals due to a belief that they descended from that species. Klee (1985) illustrates how marine resources were conserved by placing a tapu over a reef for the purpose of respecting the death of a leader or replenishing stocks for an up-coming ceremony. So many practices employed were bound up in sociological and cultural rituals and customs with their conservation benefits an incidental bonus:

> taboos imposed restrictions on the use of certain areas or resources, and as such were an important means of insuring the survival of certain wildlife species and controlling the over-exploitation of resources (South Pacific Regional Environment Programme 1985: 17 - emphasis added).

While the outcomes of past practices may be analogous to those desired by conservationists, this need not imply a common ethical basis.

Although many of these traditional controls were generally not applied with any higher conservation ethic in mind, there is evidence of some traditional practices
employed consciously and explicitly for conservation purposes. Klee (1980: 254) claims that Samoa had traditional fisheries ecologists, specific marine species regulation, and forest and garden crop resource management that correspond to "recognised conservation practice". Whether Samoan people were intentionally ecologically virtuous or not may not be of great importance to this research. The evidence suggests that while they were not "conservationists" in the modern sense of the word, they had no need to be. Watters (1958: 46) describes the practices employed in Samoa as being indicative of a "liberal physical environment". What is important is whether these practices (both those with a manifest and those with a latent environmental benefit) did promote sustainable systems, and consequently to ascertain whether it is appropriate to adapt such practices to modern circumstances.

The idea that Samoans were traditionally sound conservationists (no matter what their motives were) must be balanced against the reality of the health of their environment: "I am a little sceptical of some studies of traditional conservation practices as they have not always distinguished between the traditional idea and the reality of what happened" (G. Ward in Klee 1980: 268). Certainly some practices did work to conserve resources, but equally certain is that many did not—any more than all western conservation measures work. Clarke (1990: 235) claims that Polynesians "actively manipulated, modified, and, at times, degraded the ecosystem they lived in, producing environmental changes that in return required ecological adaptations and social adjustments". Likewise Crocombe argues that Polynesians were:

probably neither significantly better nor significantly worse than us at aiming to conserve their environment . . . . The fact that early man [sic] was not more destructive was due more to the lack of destructive tools, than to virtue or good sense (Thomas 1989: 22).

The transformation of the natural landscape into a cultural landscape brought about many extinctions, endangered other species and degraded soils, vegetation and reefs. Clarke (1990: 235) states that perhaps the most widespread of the human-induced changes in the prehistoric Pacific has been deforestation.

While not necessarily in harmony with the environment, there existed a lot of knowledge about the environment. Sustained yield systems developed partly as a
result of, or a response to, self-inflicted degradation. Clarke (1978) praises traditional agricultural systems in the Pacific for their energy efficiency, poly-cultural and pollution-free status, and their elasticity. Watters (1958: 47-48) notes the extensive knowledge of forest resources by Samoans: "Names existed for nearly all plants, indicating considerable native knowledge and perception . . . Reliable documentation indicates that at least 187 different uses were made of plants". It is this knowledge base that could be revived, preserved and integrated into today's search for sustainable resource management (Clarke 1994: pers. comm.).

**Present Environmental Context**

Western Samoa's environmental problems, as presented to the Rio Earth Summit in 1992, are displayed in Table 4.1. Two points are immediately noteworthy. First is the capacity of a small island state to produce a long list of environmental degradation. Secondly is a cautionary point to keep these environmental threats in perspective. The list does not contain massive environmental problems such as urbanisation, air pollution and toxic waste disposal that many larger nations face. What Table 4.1 does show is that a large portion of environmental damage (the left column) is closely connected to deforestation. A brief description of the environmental consequences of deforestation precedes an analysis of the causes and extent of the process in Western Samoa.

<table>
<thead>
<tr>
<th>Table 4.1: Environmental Damage in Western Samoa as Reported to UNCED, 1992</th>
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</thead>
<tbody>
<tr>
<td>Uncontrolled land clearing</td>
</tr>
<tr>
<td>Watershed management problems</td>
</tr>
<tr>
<td>Deforestation and loss of biodiversity</td>
</tr>
<tr>
<td>Soil erosion</td>
</tr>
<tr>
<td>Degradation of reefs by eutrophication and sedimentation</td>
</tr>
<tr>
<td>Mangrove loss and pollution of mangrove stands</td>
</tr>
<tr>
<td>Cyclone damage to forests, soil, agriculture, reefs, and infrastructure</td>
</tr>
</tbody>
</table>

After: South Pacific Regional Environment Programme (1992a)
Watershed Management Problems: Despite high rainfall some of the water resources in Samoa dry up due largely to the high permeability of the younger rock formations. Forests act as an important sponge for holding water in catchments and it is this capacity that is under threat from deforestation. In many areas water supplies are insufficient to meet local domestic demand. Up to one third of the population relies on borewater or rainwater (Taule'alo 1993: 8). Water quality is also affected as catchments are converted to plantations and agricultural chemicals applied.

Soil Erosion: The soils of Western Samoa are generally shallow and stoney corresponding to the recent volcanics. Steep catchments and intense rainfall render exposed soil highly susceptible to erosion. The interception and sponge characteristics of forests mitigate against this.

Degradation of Reefs by Eutrophication and Sedimentation: Small steep water catchments translate to high proportions of eroded material reaching the coast. Deforestation has increased the volume of soil and nutrients washed into the sea either smothering of inhibiting light to corals (Taule'alo 1993: 25). This then contributes to the collapse of inshore fisheries.

Loss of Biodiversity: Western Samoa's forests are not rich in different plants and animals but, like the biodiversity of other isolated Pacific islands, they are valued internationally as unique. Of the 775 native vascular plant species approximately 30 percent are endemic (Pearsall and Whistler 1991: 17). Similarly 8 of the 43 resident bird species are endemic (Pearsall and Whistler 1991: 18). The lack of diversity and small plant and animal populations due to the small land mass, combine to render Samoa's biodiversity extremely vulnerable to disturbance. While there exists no 'designated' endangered or threatened plant species in Western Samoa, Whistler lists 47 plants as threatened (in Pearsall and Whistler 1991: 17) and proposes a list of 136 species that he considers potentially endangered (in Taule'alo 1993: 12). Likewise the 3 bat species are all considered threatened as well as 9 of the 43 bird species (Pearsall and Whistler 1991: 18).
Five terrestrial vegetation ecosystems are identified in Western Samoa: Littoral, Wetland, Rainforest, Volcanic, and Disturbed vegetation (Taule'alo 1993: 12-14). Forest vegetation comprises littoral, mangrove, swamp, coastal, lowland, ridge, montane, cloud and secondary forest. Many of these vegetation communities are being damaged to the threat of all the environmental issues discussed above.

The Forest Resource

In the mid-nineteenth century George Turner, an English missionary, described the island of Savai'i as "covered with vegetation as far as the eye can reach" (Turner 1861: 95). By the mid-twentieth century Fox and Cumberland (1962: 73) noted that "almost fifty per cent of the population of Western Samoa live in villages which have no immediately-adjacent area of primary forest". Samoans became forest-fringe dwellers as they 'grew away' from the forest which became no longer an integral part of their daily life. Watters (1958: 48) and Fox and Cumberland (1962: 73) both found an extensive knowledge of the forest and its wide range of uses that was indicative of an earlier greater reliance upon its resources. But by the 1950s "wild plants were of low esteem and were generally regarded as "famine food" to be eaten only in times of emergency" (Watters 1958: 48).

In the last five years, on a relative area basis, forest clearance in Western Samoa has been triple the rate of Indonesia (Government of Western Samoa 1993: 8). Figures 4.2 and 4.3 illustrate this phenomenal rate of deforestation in the period 1954-1990. The first two maps in each sequence can be directly compared. However the final map, for 1990, illustrates only closed canopy forest that has a minimum of disturbance (Ward 1994: pers. comm.). Thus it is not directly comparable with the earlier two maps. Nevertheless the rate of deforestation over this latter period is estimated to be approximately 3100 ha per annum (Government of Western Samoa 1993: 8). Overall, 20 percent of forest clearance is attributed to logging with the remaining 80 percent a result of agriculture and other activities (Government of Western Samoa 1993: 77). However since 1989 there has been no commercial logging operations on Upolu so all deforestation on Upolu is now due to agriculture and other activities, while on Savai'i up to 40
percent is still due to logging (Government of Western Samoa 1993: 11-15). What remained in 1992 was 104000 ha of indigenous forest, covering 36 percent of the total land area (Government of Western Samoa 1993: 89).

Figure 4.2: Native Forest Depletion, Upolu 1954-1990
Source: Provided by G. Ward (Unpublished)
Figure 4.3: Native Forest Depletion, Savai'i 1954-1990
Source: Provided by G. Ward (Unpublished)
Figure 4.4 indicates the area that was cleared of forest between 1954-1987. It is evident, but not surprising, that most clearance has occurred in the coastal regions where the forest is most readily accessible. The alignment of the clearings tend to run perpendicular to the coast. This corresponds to village plots which tend to run in narrow strips inland from the coast. Thus a large portion of the clearings are indicative of village plots extending inland.
The results of a 1991 land use survey are presented in Table 4.2. Only 12400 ha of productive indigenous forest remain in Western Samoa. If current clearance rates of 3100 ha per annum continue, the merchantable indigenous forest not under protection will be fully utilised by 1996. Plantation forests in 1991 only consisted of 1 percent of total land area, or 2200 ha. Cyclone Val which struck in December 1991 reduced this to 1727 ha (Government of Western Samoa 1993: 102) though in 1992-93 further planting added 560 ha (Iakopo 1993). Previously Cyclone Ofa (January 1990) had written off 39 percent of plantation forest and severely damaged 70 percent (Government of Western Samoa 1993: 85). Plantation forests are now not expected to be harvestable commercially until 2007, posing greater threats to remaining merchantable indigenous forests. Meanwhile land planted in agricultural crops now dominates land use and accounts for 34 percent of the total land area.

Increased demand for land and forest resources is placing tremendous pressure on Western Samoa's natural ecosystems. Protected areas, which constitute 3 percent of the total land use in Table 4.2 are one method of easing this pressure. However before they can be considered, the human context of Western Samoa must be investigated.

<table>
<thead>
<tr>
<th>Land Use Type</th>
<th>Area (000ha)</th>
<th>% of total area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indigenous Forest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>remaining productive areas</td>
<td>12.4</td>
<td>4</td>
</tr>
<tr>
<td>non-productive for physical reasons</td>
<td>82.2</td>
<td>29</td>
</tr>
<tr>
<td>legally constituted protected areas</td>
<td>6.5</td>
<td>2</td>
</tr>
<tr>
<td>protected under village conservation agreements</td>
<td>2.9</td>
<td>1</td>
</tr>
<tr>
<td>Plantation Forest Areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>effective planted areas</td>
<td>2.2</td>
<td>1</td>
</tr>
<tr>
<td>areas awaiting or unsuitable for planting</td>
<td>8.5</td>
<td>3</td>
</tr>
<tr>
<td>Land for Agriculture, Crops and Pasture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>planted</td>
<td>96.1</td>
<td>34</td>
</tr>
<tr>
<td>village settlements, fallow, etc.</td>
<td>43.1</td>
<td>15</td>
</tr>
<tr>
<td>Other - lava flows, towns, etc.</td>
<td>28.1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>282.0</td>
<td>99</td>
</tr>
</tbody>
</table>

Source: Government of Western Samoa (1993: 87)
4.2 THE HUMAN CONTEXT

The Samoan islands were first inhabited about 3000 years ago. European settlement began in 1830. Official colonisation occurred from 1899 when German (later Western) Samoa became politically divided from Eastern (later American) Samoa. Since this time the human context has evolved as a series of contradictions between the externally introduced patterns of behaviour, ideologies and actions of a modern state, and the traditional internal components of fa'a Samoa.

The contemporary human context of Western Samoa is presented in Figure 4.5. Each of the structures illustrated is legitimised by a different set of rules. The zone of interaction is the expanding realm, and characterised by confusion and ambiguity as to which set of rules apply to it. The challenge that this presents to the environmental context is that each system must make environmentally rational choices within its own framework, and must mutually adjust across the zone of interaction to coordinate. The social, political, and economic culture of Samoa are therefore inescapably linked to sustainable development.

Figure 4.5: Contemporary Socio-Economic-Political Culture
Source: Conner 1990

Economic Context

Atiinaa'e, "development", is the word on the lips of government officials and village planters alike in contemporary Western Samoa. At the macro-economic level development is being pursued by the government with the assistance of foreign aid. At the micro-level individuals are financing their development through private overseas remittances. So while most Samoans continue to derive
their basic subsistence as they always did from their land, aspirations for development are externally dependent. Integrating the externally focused monetary economy with the internal subsistence economy is a current dilemma.

The economically active population in 1991 was 42494 (Department of Statistics 1993b). Of this approximately 9000 workers were employed within the government sector or in government corporations, while 23553 were unpaid workers. This large unpaid component derives from the dominant semi-subsistence agricultural sector. The internal economy is dominated by this sector which consistently generates around 30 percent of gross domestic product (GDP). A 1989 census of agriculture concluded that 70 percent of households were agriculturally active with 92 percent of them involved at the home consumption level "only" or "mainly" (Department of Statistics and Department of Agriculture 1990: 25-28). So while individual outputs of village farmers are low, collectively they dominate the domestic economy and can be regarded at least as a semi-permanent feature of Samoan society.

While the subsistence economy dominates, most Samoans today aspire to the material benefits which could flow from a monetary economy. GDP per capita, equivalent to approximately WS$1590\(^2\) in 1990 (National Planning Office 1992), has not satisfied consumption levels and consequently the domestic savings level is in deficit. This resource gap is financed from remittances and foreign aid. With a consumption deficit these external inputs generally supplement domestic consumption providing additional income rather than additional investment.

Private remittances from Samoan migrants who have settled overseas fuel the individual pursuit for material development. Estimated remittance flows grew by 13 percent per annum from 1984-1989 (National Planning Office 1992) and in 1991 totalled WS$91 million (Fairbairn in Taule'alo 1993: 47). On most evenings, for what must be an hour, a voice on the government radio reads a list of aiga names followed by their village. This list indicates those who have foreign money orders waiting for collection from the town post offices.

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2. WS$ refers to Western Samoan Tala which is the domestic currency. WS$2.4 currently equals about US$1. NZ$1 equals approximately WS$1.4. Hence WS$1590 is equal to US$660 or NZ$1130.
Approximately one third of foreign exchange 'earnings' arrive by such envelope (O'Meara 1990: 5). These figures fail to account for the large capital items that accompany migrants on their return visits to Samoa. It is not uncommon to enter a fale and amongst the sparse furnishings spot the latest Technics stereo system. As Dahl and Carew-Reid (1985: 10) explain: "Honda and Sanyo have done more to change the modern Pacific than any economic or political theories". The recent cyclones have prompted a rise in remittances but this trend has since reversed. As overseas economies depress and Samoan migrants enter a third generation, these financial ties are expected to further weaken (Connell 1980: 22).

Total ODA to Western Samoa in 1993 was WS$82.1 million (Central Bank of Western Samoa 1994). This figure is approximately equal to a third of the GDP and is thus equal to the contribution of subsistence agriculture. At just over WS$500 per capita (US$210) this lies well above the average aid flow to developing countries of $US20 per capita. This corresponds to the preference of donors to make a significant impact on small economies so that they can 'see' their aid work. External grants totalling WS$44.8 million in 1993 were received in declining order from the European Community, Japan, Australia, and New Zealand (Central Bank of Western Samoa 1994). The major soft-loans contributor is the Asian Development Bank. Present levels of foreign aid have been flat for the last three years and present an uncertain future.

Between 1985-1990 Western Samoa's overall balance of payments achieved a growing surplus. In fact it increased 7 fold at constant prices (National Planning Office 1992). This is despite a 43 percent decline in exports and a 68 percent increase in imports over the same period (Taule'alo 1993: 48). This highlights the importance of remittances and foreign aid. In the last two years exports have continued to decline (in part due to poor world commodity prices for agricultural produce, combined with the impacts of the two cyclones), while imports remain on the increase. This led to balance of payments deficits in 1992 and 1993 (Central Bank of Western Samoa 1994). At the end of 1990 government debt stood at WS$195 million of which 93 percent was foreign debt (National Planning Office 1992). For the individual the economy is presenting difficulties too. The Central Bank of Western Samoa reports that domestic coconut prices
were 90 percent higher in March 1994 than in the months immediately prior to Cyclone Val, while banana prices were 82 percent higher than in the same month last year. Meanwhile the supply of taro, as the major export crop and staple food, was down from 22,500 kilograms on a typical Friday at the Apia Market in June 1993, to just 300 kilograms in March 1994 as the effects of a taro blight were in full force (Samoan Observer 1994).

The development ethos is now firmly ingrained within the Samoan culture, being "encouraged by greater contact with the west, either insidiously through the entertainment and information media or overtly through foreign aid and advice" (Overton 1993: 168-169). Irreversible changes in patterns of consumption neglect a traditional independence based on 'subsistence affluence'. Samoa's economic dependence has grown out of all proportion. Yet there remains some resilience in the Samoan social system in that statistical catastrophes often have not led immediately to human catastrophes.

Social and Political Context

The social and political characteristics of Western Samoa add a distinct local context to the environment and development issue. Capitalist economic development occurring within a traditionally communal system presents an ambiguous context. Systems of land allocation and social organisation form the basis for this context. Communal land tenure systems contrast with the individualistic approach to capitalist economic development. While the productive basis of the extended family has weakened, the social basis remains strong. So wider social networks are still important for moral obligations such as economic security, pleasure, power and prestige, while productive sources are now largely controlled by individuals. A political system based on the legal right of the individual contrasts with an uncodified body of customary procedures governed by traditional institutions based on fa'a Samoa. The study of these aspects necessitates a cultural-specific focus for this thesis.

The matai system is clearly the foundation of fa'a Samoa, directing people's behaviour and actions. In this system, aiga reside under the pule (authority) of one of their members whom they elect to hold the aiga's matai title. These titles
are intricately associated with land. The *aiga* title owns land which the *matai*, as current holder of the title, administers. Interference with land therefore has "direct implications for the very core of the Samoan traditionally-based system of power and authority" (Meleisea 1987: 21).

Samoan systems of land tenure have been widely researched by Marsack (1961), O'Meara (1987, 1990, and 1994), and Paulson (1992). The customary land tenure system, in which land is registered under an *aiga* title, continues to dominate the formal records of land classification. As previously mentioned, approximately 81 percent of land is held in customary title. However, informal, legally unsanctioned, changes have occurred in the land tenure system leading perhaps to a new form of more individual tenure (O'Meara 1987). This modified land tenure system has come from the flaxroots level over at least the last century. O'Meara (1994: 103) describes it as the "*de facto* individualisation of land tenure".

Under the traditional land tenure system, upon the death of the *matai*, or relinquishment of their title, "the pule over the family lands descends not to his heirs of the body but to his successor in title" (Marsack 1961: 22). Therefore access to land is gained primarily by descent from a title rather than descent from the persons actually occupying the land. Under the modified tenure system land is inherited directly through descent from the person occupying the land rather than through the acquisition of a *matai* title. The potential right to pule under this new system is "activated by acquiring the status of *matai* - that is, by acquiring any *matai* title, rather than by acquiring a specific title which has control over specific land as in the old system" (O'Meara 1987: 111). Thus the focus of land ownership has shifted from the title to the person, or as O'Meara articulates it, 'from the heir of the title to the heir of the body'.

According to O'Meara (1987: 95), to hold pule over land, one is still required to have a *matai* title. But an untitled person may claim pule to a piece of land they cleared in anticipation of receiving a title. This contrasts to the traditional system where land cleared by an untitled person becomes "appurtenant to the title of the

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3. The *matai* is neither male nor female. However of the 20000 *matai* on the Electors Register 1988, approximately 900, or 5 percent, were female (Fairbairn-Dunlop 1991: 90).
matai whom the taule'ale'a [untitled adult] is at the time serving" (Marsack 1961: 25). While this usually allowed usage and occupation by the taule'ale'a, providing they continued to render proper service to the matai, under the modified system the ownership has also moved to the nuclear family level. More recent research in 1993 by O'Meara suggests that pule over land is now recognised even without a matai title. For example on questioning villagers about their land, O'Meara (1994: 113) got responses such as: "My son will exercise the authority . . . because he is my son. Whether titled or untitled, he is the heir". Once again this control by non-matai is not articulated at the public level.

Discussions with land managers during my research generally supported the description of changes in customary land tenure as presented by O'Meara (1987 and 1994). However, as Paulson (1992: 164) found, few people articulated the new form of tenure as clearly as O'Meara does. The tenure systems are more complex than the two systems described by O'Meara (1987) with graduated changes producing a mosaic of old, changing, and new systems. Nobody articulated their land as fanua to'atasi (land belonging to one, or individual ownership). Yet the fact that nuclear-type families talked about 'their' land in the first place indicates a change. O'Meara (1987) discovered empty houses and found that their 'owners' were overseas indicating individualisation of house sites. Often however these dwellings are empty because they are not required and the matai holding the title could in fact allow someone to shift in (Aiono and Tagaloa 1994: pers. comm.). Then again the simple fact that many houses are now built of permanent materials rather than inexpensive and quick to construct thatched fale, suggests a change in itself (Fairbairn-Dunlop 1994: pers. comm.).

The most commonly articulated response upon questioning indicated a mixture of the two systems. Aiga land under a principal matai title is still important. Yet within this the nuclear family unit is becoming more important and largely self-sufficient. Individual families have usufruct rights to their allocated land within the broader aiga lands. Usufruct rights encompass choosing what to plant, when and where, and the use of the harvest of the land - the day-to-day decisions. Often at this level decisions extended to constructing new fale on the land. Individual control however stopped short of having ultimate pule over the land.
So if ownership disputes arose over land then the *pule* of the principal *matai* would be called upon. Thus the relationship of *matai* concerning land has become one of guardianship rather than control in many cases.

The clearing of virgin customary lands occurs through a variety of methods. If a *fono* decides a village requires more land it may permit everyone to extend their *aiga* lands on a given day. Often enterprising *aiga* will hire land clearers for the day and thus obtain the most new land. Alternatively a *fono* may allocate new land on a 'fathoms per *aiga*' basis (Aiono and Tagaloa 1994: pers. comm.). Increasingly under modified tenure systems, where "the right to own and use virgin customary lands is basically determined by those who clear the forest on it" (Sesega 1990: 63), clearing is encouraged simply to claim the rights of ownership and use. Commercial motives (cash cropping) are causing people to look through their genealogy, claim connection to a village, then clear a plantation within the forest, claiming it as theirs (Petaia 1994: pers. comm.). So the ability to clear land, which was once limited by social controls such as the labour at one's command, is increasingly based on one's access to capital - principally chainsaws and hired labourers. This supports the aptly titled paper by Macpherson (1988) "The Road to Power is the Chainsaw", on villages and innovation in Western Samoa.

The dual nature of Western Samoa's economy and social organisation/land tenure is matched by a dualistic political system. Central government is only tenuously connected to village *fonos*. *Fono* rulings still guide almost every aspect of village life and are only slowly being eroded. So customary systems of decision-making and enforcement hold sway over 81 percent of lands in Western Samoa: "To all intents and purposes it [the village] is semi-autonomous in relation to laws passed by Parliament and administered and enforced by government departments and the police" (Cornforth 1992). As a result the Western Samoan Government has been likened to a "United Nations" with all villages having parliaments (Tagaloa 1994: pers. comm.), or as the Secretary to Government puts it: "Samoa is not run by a government. The Government is like a foreign affairs department" (Eteuati 1994: pers. comm.).

Just as government acts hold no sway over village lands, village agreements and
laws have no national legal basis. As yet there is no successful statutory mechanism that brings together the parliamentary and customary law-making codes. The Village Fono Act 1990 attempted to give the weight of national law to village fono decisions (Cornforth 1992). However it is questionable whether this is necessary anyway given the power that the fono already has (Fairbairn-Dunlop 1994: pers. comm.).

The problem for natural resource conservation is that "the boundaries which delimit the influence of government, the village, and private land owners do not coincide with environmental boundaries" (Cornforth 1992). So for conservation initiatives to reach fulfilment on customary lands the village must be committed to the objectives and implementation of them. As with all externally introduced systems, the human context of Western Samoa acts as a filter, reinterpreting the systems according to their own world view.

A final human context which has the potential to greatly affect movements towards sustainable development in Western Samoa is population growth. As previously mentioned, the population of Western Samoa from the 1991 census was 161298. Table 4.3 shows that the average annual growth rate has declined during each intercensal period except the last. This decline is due partly to a fall in the fertility rate but more to overseas migration. Fairbairn (1985: 20) notes that 15000 people left Samoa from 1972-1981, while total out-migration for 1982-1991 was nearly 28000 (Taule'alo 1993: 41). These figures represent almost 30 percent of the 1972 population. The recent increase in the population

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Average Annual Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>114 427</td>
<td>3.3</td>
</tr>
<tr>
<td>1966</td>
<td>131 377</td>
<td>2.8</td>
</tr>
<tr>
<td>1971</td>
<td>146 627</td>
<td>2.2</td>
</tr>
<tr>
<td>1976</td>
<td>151 983</td>
<td>0.7</td>
</tr>
<tr>
<td>1981</td>
<td>156 341</td>
<td>0.6</td>
</tr>
<tr>
<td>1986</td>
<td>157 158</td>
<td>0.1</td>
</tr>
<tr>
<td>1991</td>
<td>161 298</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Source: Department of Statistics (1993b)
growth rate reflects a decrease in international migration and an increase in migrants returning home. In 1988-89 the number of migrant arrivals to Western Samoa jumped 11000 while the total migration balance dropped from over 5000 emigrants to just 786 in 1989 (Taule'alo 1993: 41). With economic recession affecting overseas employment and tougher conditions of entry to overseas destinations, the population has the potential to return to its 2-3 percent annual growth rates.

4.3 TOWARDS SUSTAINABLE DEVELOPMENT

This report is concerned with strategies to operationalise sustainable development through conservation projects. This chapter has added a Samoan-specific context to the global argument presented in earlier chapters as a step towards a focus on local flaxroots concerns, which occupy the next three chapters. Global development and environment issues translate readily to the national level where practical concerns are not immediately impending. In Western Samoa national development issues are produced in a series of Development Plans, while national environmental concerns are soon to be released in a National Environmental Management Strategy.

National Development Planning

Past approaches to development in Western Samoa have undermined the prospect for long-term development (Sesega 1990). In the broader context this destructive approach is driven by development strategies. Medium-term forward planning began in the mid-1960s with the First Development Plan. Currently Western Samoa is operating under its Seventh Development Plan (National Planning Office 1992). Modernisation theories tend to dominate all the plans to date, with increased production the common principal objective: "The exploitation of the country's natural resources, both land and sea based, is the key to Samoa's economic future" (Department of Economic Development 1984: 39). This maximising of immediate production neglects long-term sustainability: "The overall strategy in the forestry subsector will encompass revising the current framework of "sustained yield" and orient the development of forestry to production" (Department of Economic Development 1987).
Western Samoa's Fourth Development Plan (1980-1984) first included an objective to protect and conserve the environment and included a chapter titled "Environmental Management for Development" (Department of Economic Development 1980). The Sixth Development Plan (1988-1990) linked economic growth to "environmentally sound development" (Department of Economic Development 1987), while the rhetoric of 'sustainable development' had arrived by the latest Plan (National Planning Office 1992). In the Forward of this plan the Prime Minister conceded that:

> it has become evident in recent years that much apparent development, especially in agriculture, has been achieved at the expense of the long-term health of the environment. We have, in effect, been consuming our natural capital . . . This will stop (National Planning Office 1992).

### National Environmental Planning

Western Samoa has recently prepared a State of the Environment Report (Taule'alo 1993) as a step towards formulating a National Environmental Management Strategy. This Strategy is currently before the Cabinet seeking approval (Reti 1994: pers. comm.). It represents the principal programme for integrating environment and development at the national level. In recognition of an integrated approach, the National Environmental Management Strategy deliberately focuses on issues rather than taking the traditional sectoral approach. The combat of deforestation, development of appropriate land use practices, and conservation of biodiversity, are all identified as major environmental issues (Taule'alo 1993: 55).

The challenge for Western Samoa is to balance a strong socio-economic development imperative against the condition of its physical environment. At the same time this move towards sustainable development must be culturally compatible. The generalised argument reported so far will now become more compelling and meaningful by moving down a further scale to the village level. At this level the effectiveness of conservation area projects, as the most blatant practical form of sustainability, will be assessed.
Chapter Five

The National Park Approach: The Case of O Le Pupu-Pu'e National Park

As a national park, O Le Pupu-Pu'e is the product of the modern western approach to conservation, the State setting aside publicly-owned land for the benefit of the nation. The park itself was inaugurated in 1978 making it the first national park in the Pacific islands. It originates from internationally financed operations establishing both a general parks system and the park per se. At a political level the project approach was complemented by the formulation of specific protected area government policy (Department of Agriculture and Forests 1975). A look at the practice and policy involved with O Le Pupu-Pu'e National Park precedes an investigation of the values and perceptions of local people towards the park, as ascribed to the cognitive level of change towards sustainable development (see Figure 1.2).

5.1 THE OPERATING LEVEL

With little information on which to base the selection of protected areas, the Government of Western Samoa in 1974 called upon the IUCN for help in selecting "lands suitable for reserves and national parks" (in Darby 1988: 47). In response to this request the United Nations Development Advisory Team (UNDAT) funded a study team to prepare a plan for both national parks and general conservation policy. The conservation recommendations of this report (Holloway and Floyd 1975) included a system of six national parks along with 53 other protected areas. The report recognised national parks as "a legitimate form of land-use to satisfy human needs, in precisely the same way as, for example, agriculture or urban development" (Holloway and Floyd 1975: 10).

In 1978, based on the UNDAT plan, 2850 ha of public land on the southern side of Upolu were set aside as O Le Pupu-Pu'e National Park. The Government continued to cooperate with UNDAT who followed up their 1975 report
providing management, development and interpretive recommendations for the park (Ollier et al. 1979). Following a request from Western Samoa in 1978, New Zealand provided a senior national parks ranger to act as a technical advisor to the project for two years. This was a direct spin-off from New Zealand bilateral assistance with a forestry project. The IUCN and the World-Wide Fund for Nature (WWF) provided financial assistance for travel and equipment (Mossman 1980: 2). This international project implementation assistance included on-the-job training for a Samoan counterpart culminating in a six week study tour of the Aotearoa national park system in 1980. The counterpart eventually assumed the park ranger role (Poai 1994: pers. comm.). Implementation assistance concluded with a management plan for the park (Mossman and Berg 1981).

Figure 5.1: O Le Pupu-Pu'e National Park
After: Mossman and Berg (1981: 12)
The National Park’s headquarters are located at Togitogiga (see Figure 5.1). The original visitors *fale* was destroyed in 1990 by Cyclone Ofa then rebuilt for NZ$20000 from the Pacific Development and Conservation Trust Fund, an assistance programme based in New Zealand and funded by the French Government as compensation for the bombing of the Greenpeace ship *Rainbow Warrior* (Department of Lands, Surveys and Environment 1991a: 16). However Cyclone Val once again destroyed the centre and to date no interpretive visitors headquarters exists. Only two low-quality tracks serve visitor use - one to the coast and another to some lava caves (Figure 5.1 and Plate 1).

*Plate 1: Coastal Track - O Le Pupu-Pu’e National Park.*

Daily park operations are today administered by a ranger and 13 full time labourers (Poai 1994: pers. comm.). Considerable effort is directed at beautifying the immediate surrounds of the headquarters and ranger’s residence including the adjacent Togitogiga Scenic Reserve (Plate 2). Park usage concentrates on these areas.

Public land in the form of plantation forests, catchment lands and an experimental demonstration cattle farm border the park. Customary land and
public land allocated to villages adjoin about one third of the park boundary (Figure 5.1). Mossman (1980) mentions firewood collection, shooting of birds, and agriculture encroachment as the major 'threats' to preservation objectives. Although the locals do not claim traditional rights to the protected area, Carew-Reid (1989: 98) claims that invasions of the park are due to a desperate shortage of land. Fieldwork in 1994 did not reveal a shortage of land. Several people said they would collect wood from the park if allowed to while a few people did admit to extractive usages. These include gathering *pasio* (passion fruit) and *lopa* nuts (small red edible seeds), hunting pigs, and obtaining poles for constructing *fale*. Numerous people mentioned they were tempted by the size of the trees in the park compared with the trees on their land. A broadcasting aerial, quarry and several small plantation clearings are the other competing land uses within the park boundaries. Agricultural encroachment is somewhat self-regulated by the poor quality of soils within the boundaries. The policing of other infringements is difficult but active. Two written warnings of infringement from the park ranger to local *aiga* were witnessed during this research.

Plate 2: Togitogiga Scenic Reserve - adjacent to O Le Pupu-Pu'e National Park and the core of visitor use.
5.2 THE POLICY LEVEL

The philosophy, organisation and regulatory provisions of the national park approach in Western Samoa were established by enactment of the National Parks and Reserves Act 1974. It provided the cornerstone for the approach before UNDAT's report was released in 1975: "an act to provide for the establishment, preservation and administration of national parks and reserves for the benefit of the people of Western Samoa" (Department of Agriculture and Forests 1975). The Act is restricted to public lands. Therefore it excludes 80 percent of the area proposed for protection under the UNDAT plan (Holloway and Floyd 1975: 28). The Act uses the typical rhetoric of national park legislation: "preserved in perpetuity . . . . so that they may receive in full measure all the benefits, including inspiration, aesthetic appreciation, enjoyment, and recreation" (Department of Agriculture and Forests 1975: 3).

The regulatory provisions of the National Parks and Reserves Act 1974 establish a defensive regime. In the O Le Pupu-Pu'e National Park Management Plan this entails a policy "to erect and maintain boundary fences to ensure the boundary is adequately defined and protected as necessary against outside influences" (Mossman and Berg 1981: 18). Law enforcement training for selected parks personnel has even been suggested to defend the boundary (South Pacific Regional Environment Programme 1985: 239). In reality boundary line disputes have yet to permit the government to officially gazette the park (Butler 1994: pers. comm.).

Administration of the O Le Pupu-Pu'e National Park lay with the National Parks and Reserves Section within the Forestry Division of the Department of Agriculture, Forests and Fisheries. This was a politically weak unit divorced from ministerial decision-making. Public input into the management of the park is minimalised by the absence of a National Parks Board or similar structure. Early enthusiasm towards the national park approach is reflected in funding and staffing allocated to conservation and environmental administration (Table 5.1). Parks and reserve staffing peaked at 30 in 1981 and funding at WS$66300 in 1979. However from 1979-1987 enthusiasm waned with funding for conservation declining by 93 percent in real terms and staff levels falling by 42 percent.
Table 5.1: National Parks and Reserve Staffing and Funding 1979-1987

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Staff</th>
<th>Actual Budget (constant value 1979 tala)</th>
<th>Inflation Adjusted Budget (constant value 1979 tala)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>26</td>
<td>66300</td>
<td>-</td>
</tr>
<tr>
<td>1980</td>
<td>28</td>
<td>45500</td>
<td>34207</td>
</tr>
<tr>
<td>1981</td>
<td>30</td>
<td>42350</td>
<td>22947</td>
</tr>
<tr>
<td>1982</td>
<td>20</td>
<td>36900</td>
<td>22539</td>
</tr>
<tr>
<td>1983</td>
<td>19</td>
<td>38741</td>
<td>15205</td>
</tr>
<tr>
<td>1984</td>
<td>15</td>
<td>21713</td>
<td>7609</td>
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<tr>
<td>1985</td>
<td>15</td>
<td>25390</td>
<td>8163</td>
</tr>
<tr>
<td>1986</td>
<td>-</td>
<td>15499</td>
<td>4701</td>
</tr>
<tr>
<td>1987</td>
<td>-</td>
<td>14745</td>
<td>4300</td>
</tr>
</tbody>
</table>


The National Parks and Reserves Act 1974 gave Western Samoa a solid piece of protected areas law. This was complemented by an enthusiastic budget and staffing allocation, and a comprehensive plan for a system of national parks. This 'official' energy withered through the 1980s. As identified in the initial document by Holloway and Floyd (1975: 47), the ultimate success of the national park approach depended on how Samoans "from all strata of the community, are involved in, and can identify themselves with, the parks concept".

5.3 THE COGNITIVE LEVEL

It is sometimes difficult for people to understand what national parks are for, or what benefit such places could be for them. Mossman (1980: 3) acknowledged that there "was little awareness of conservation or landscape values" even amongst the staff at O Le Pupu-Pu'e National Park. In Western Samoa the plan was to establish areas to serve as examples, then use these to create an awareness and understanding of the values of conservation and of protecting natural areas (Mossman 1980: 4). The plan was to develop local attitudes to accept the foreign concept of national parks.

An education programme aimed at "creating an awareness and understanding of the Park concepts and conservation" complemented the projects at the operation
and policy levels (Mossman and Berg 1981: 13). Displays, pamphlets, films and talks initiated in Apia, and during the early 1980s extended into rural areas. Iosefatu Reti (1994: pers. comm.) mentions that the conservation awareness created may have been somewhat superficial. He recalls the education programmes he was involved with in which films, slides, projectors and a generator were taken around village schools and presented in the evenings. Amongst the educational movies would be a couple of "westerns" which would be shown after the official material. As televisions were uncommon at the time, the attendance at these presentations was dominated by school children wanting to see some movies.

Referring to O Le Pupu-Pu'e National Park, Eaton (1985a: 72) claims that "the concept of national parks is gradually becoming better understood by the people of the area". Fieldwork undertaken for the present research concentrated on evaluating this statement. Investigations focused on the neighbouring villages of Saleilua, its coastal counterpart Iliili, and to a small extent Sa'agafoa (Figure 5.1). In total 30 people were interviewed from 23 aiga using the standard questionnaire format shown in Appendix One. Many of the questions were simply asked to gain a background of the people and their lands. Some questions were irrelevant to this specific case study and not asked - for example "did you receive any form of financial compensation?". Discussions focused on peoples perception and use of the protected area (Questions 8 and 9). Quoted exerts from the discussions represent translations from oral Samoan.

The overall perception of the purpose of the national park is indicative of a general lack of understanding of the concepts it represents. Almost half of all respondents declared the park's tourism functions as its main purpose (see Figure 5.2). When asked what the main purpose was, responses included: "so tourists can come for barbecues and beers" (this man had lived in New Zealand for three years); "to make Samoa look good for overseas tourists" (Saleilua Village, 13 April 1994). To a degree perhaps this indicates a good understanding of the Samoan national park concept. With project priority focusing on economic development, the national park has always had to incorporate a tourism component to justify itself against competing economic proposals.
Ecological purposes of the national park were articulated by 30 percent of the respondents. Within this the responses ranged from "protected for the birds and big trees to rest underneath" (Saleilua Village, 13 April 1994) to a more western scientific explanation of protection from "overuse" (Sa'agafou Village, 14 April 1994). One person mentioned the hydrological functions of the forest as the main reason for the national park. While the size of the sample population does not allow for accurate analysis when the data is broken down into smaller categories such as age groups, it is interesting to note that the hydrological response and many of the ecological purposes were from respondents under 25 years of age.

Many people appeared to have to put considerable thought into defining the main purpose of the park. Yet 20 percent were unable to articulate any purpose. Some of this group mentioned that "only palagi understand it", with one stating: "I don't know the importance of protecting it . . . . It's a palagi set-up and I trust the palagi" (Iliili Village, 15 April 1994).

It was recognised from early in the planning of the park that local involvement through usage would foster support for the unfamiliar concept. The restrictive categories of use however would require some guidance:

The Park cannot be administered simply for its intrinsic interest, but must be managed as far as possible to be of some value. Samoans do not have much interest in going to a place just to look, or going for nothing, so some
interest or point must be added to give "purpose" to visitors (Ollier et al. 1979: 47).

In a sense the Togitogiga Scenic Reserve added this "purpose" providing visitors with a tangible use. Although technically separate from the park, the two areas are practically managed as one. Furthermore it became obvious during this research that the local population do not separate the reserve from the park. The waterfalls and picnic *fale* within the reserve (Plate 2) are heavily utilised by both locals and visitors from Apia. The lawns nearby also provide areas for rugby, cricket and soccer.

One third of the people interviewed never used the park. One person claimed she was unable to use the park because it was a restricted area. When it was explained that only certain uses were excluded, it became evident that they were the uses which she valued (such as for collecting nuts). Half of the people who did not use the park at all did have children who visited the waterfall regularly. In addition just over one third of the total respondents used the waterfall area (Togitogiga Scenic Reserve) while only five people stated that they had used the tracks within the park itself. Eight of the *aiga* received income of WS$90-100 per fortnight through direct employment in the park.

People's overall impression of the national park was favourable. Only one person responded negatively complaining that he was without a supply of timber for building *fale*. Five people expressed a feeling of "pride" towards the national park which perhaps indicated a sense of belonging, responsibility or involvement with the park. Interaction with visitors to the park was also expressed positively. Children commonly interact with visitors, many of them *palagi*, at the waterfall, and both the children and their parents view this favourably.

Despite a general lack of understanding of the aims involved in the national park concept, there appears to be an overall respect for O Le Pupu-Pu'e National Park. Nevertheless a large number of people have no involvement with the park: they neither use it, nor can identify any tangible benefit or purpose of the park. The locality of the park means little to these people and while they may, and do, disrespect its boundaries, it is more out of a neutral attitude than a negative perception of what it represents.
5.4 ASSESSMENT

The political framework for the national park approach to conservation in Western Samoa was established under the National Parks and Reserves Act 1974. The availability of international financial and management assistance enabled the reification of the concepts embodied in this Act in the form of O Le Pupu-Pu'e National Park. Foreign assistance concentrated on developing the park per se, thereby focusing at the operational level (see Figure 1.2). Assistance with the park management plan indicates some support at the policy level as well. The park that developed from these initiatives was then left to serve as an example in creating an awareness and understanding of protected areas concepts. It was thought that this would result in shifts in attitudes and perceptions at the cognitive level, thereby reinforcing the conservation initiatives. Therefore foreign aid provided operational directive, the government largely provided the political means, and local attitudes were left to respond.

The establishment of a national park on government-owned land was seen to negate the need for consultation with the local communities. With no, or very little, explanation prior to the establishment of O Le Pupu-Pu'e National Park, the neighbouring villages have been expected to accept the park as of benefit to the nation. However the strict preservation embodied in the national park approach is not readily compatible with subsistence communities as it separates the welfare of people from the welfare of nature. The contrast between limited resources outside the park and abundant resources inside the park will become marked as pressure on the resource base intensifies. Subsistence practices will inevitably override conservation measures that are too restrictive on the practices. A fortunate combination of sufficient customary land and a natural tangible attraction - Togitogiga Waterfalls - sustains local support for O Le Pupu-Pu'e National Park. This 'support' is consequently often weak and superficial. It is generally not an ethical support, or even awareness, of the concepts incorporated in the national park approach.

There may be no need to explicitly recognise flaxroots perspectives in O Le Pupu-Pu'e National Park. Yet the fact that encroachments do occur within the park suggests the need to extend the concepts involved beyond the park.
boundaries. This may, but not necessarily, involve taking a more open approach to the preservation objectives of the park. A greater local sense of belonging, responsibility and involvement in the park may very well negate the need to relax the preservation objectives.

O Le Pupu-Pu'e National Park is still the only example of the national park approach to conservation in Western Samoa. Five other proposals planned by Holloway and Floyd (1975) have stalled in the absence of two factors. Firstly, government-led operations assumed in the national park concept, are incompatible with *fa'a Samoa* as they ignore customary authority over land. And secondly, as is evident from Table 5.1, the government agency responsible for conservation initiatives has lacked the political support to achieve results.

Holloway and Floyd (1975: V) did not propose much on the land ownership issues relating to their proposal: "Evaluate the merits for land acquisition for the parks system through purchase, lease, or dedication of land, and devise a method of land acquisition appropriate to Western Samoa". The Western Samoan Government however has very limited capability to influence the tenure and legislation of land. While it is possible for the government to acquire land for "public purposes" under the Taking of Lands Act 1964, this option is unlikely to be socially or politically sustainable. Furthermore the government is unlikely to be able to afford this option economically, or expect support from foreign aid agencies who are cautious of the socio-political consequences.

The pervasive strength of customary land tenure and *fa'a Samoa* has consequently stalled the western national park approach to nature conservation in Western Samoa. Conservation concepts have had to adapt to *fa'a Samoa*. This relies on villages having to do the job of conservation with government agencies relegated to promoting the endeavour (Park 1991: 39). The idealism of western funding agencies has had to adapt to this reality. Government and official development aid agencies have adapted slowest to this new reality. Falling budgets and a lack of authority over land combined to stagnate conservation at the government level. Consequently new approaches to conservation areas in Western Samoa have been led by partnerships between villages and innovative non-government environmental organisations.
Chapter Six

The Non-Government Conservation Approach: The Case of Tafua Rainforest Preserve

Given the problems with the government led national park approach to conservation - a lack of economic and socio-political support to acquire land areas - a new approach was required. This came following a decade of little practical action but considerable conceptual innovation. The non-government approach to conservation in Samoa began in 1989 when the village of Falealupo (Figure 4.1) signed an agreement with private foreign donors. In the agreement the villagers committed themselves to preserve their rainforest for 50 years in exchange for the donors paying off village debts that were borrowed to finance a school building. At the time the loan was being financed by logging operations within the forest. As a result of the agreement approximately 5000 ha of lowland rainforest have come under protection, see for example, Green (1990: 17-21), and Cox and Elmqvist (1991).

The Tafua Peninsula rainforest (Figure 6.1) is another of the last remaining lowland rainforests in Western Samoa. The forest is controlled by three villages, Salelologa, Tafua, and Fa'aala, with Tafua having pule over the greatest portion. Logging companies have shown an interest in the forest. In 1989 a contract between Salelologa and a logging operator was about to be signed when interest in a Falealupo-type agreement interrupted the decision. Earlier, in 1988, the villagers of Salelologa burned to the ground a warehouse, several bulldozers, and other equipment of a foreign logging company which was forcing its plans to log the forest on the village (Cox and Elmqvist 1991: 320). Tafua village was meanwhile under less but still continuous pressure from logging operations. Several companies approached the village:

They offered money to us. There were many strong attempts of these businessmen to sway our opinion to agree with them . . . . The director of the logging company came to my house. He brought 500 tala and two cases
of beer and ten bottles of expensive liquor (Ulu Taufa'asaisina Tausaga and the Chiefs and Orators of Tafua 1993: 3).

Tafua was in a similar position to Falealupo. A new primary school building was required and the offers of logging companies were seen as a means to this. Some villagers saw no other way out than to accept these offers. However, the decision was held up by two key matai who refused the loggers' requests (Siaosi 1994: pers. comm.). While Fa'aala village forest was under no imminent threat, it was incorporated into a conservation agreement for two reasons. The first issue was scientific, in that the whole forest of the peninsula represents a single biological unit. Secondly was a judicial issue, since by including all three villages, there was no immediate need to undertake the complicated task of surveying village borders (Elmqvist 1992a: 9).

Following the success of the Falealupo Agreement, the concept of a locally controlled conservation area was introduced to the three villages of Tafua, Salelologa and Fa'aala. Two western scientists, Cox and Elmqvist, coordinated

![Figure 6.1: Tafua Peninsula Rainforest Preserve](image)

After: Elmqvist (1992b: 4)
the international proposal. Their research on flying foxes on the Tafua Peninsula indicated that these species merited urgent conservation protection as they were key pollinators within the rainforest (Cox and Elmqvist 1993: 8). This motivated the scientists to present the agreement concept to the villages.

With the villages showing immediate interest in the concept, an international sponsor was sought. An environmental NGO, the Swedish Society for Nature Conservation (SNF), was approached by the scientists and rapidly launched an appeal to raise funds for the project. Fundraising was aided by the knowledge that each dollar donated served two worthy goals: the conservation of the forest and the provision of needed infrastructure. In impressive time three separate agreements, one for each village, were concluded between January 1990 and January 1991. Essentially each agreement mirrored the Falealupo approach with the villagers promising to limit their use of the forest to subsistence purposes for a period of 50 years. In return SNF as the donor, renounced all rights to the land while agreeing to provide specified development assistance. Yet what did the agreement involve in detail and what were its implications?

6.1 THE OPERATING LEVEL

Tafua village was for a long time fairly self-sufficient and isolated from outside activities. Still today with no store and only 2-3 vehicles within the village its operations are limited. The majority of Tafua's 342 villagers (Department of Statistics 1992) live in the village itself but several fale are located along the 5 km dirt road that leads to the village from the main road. The typical pattern is for the villagers to live on the fringe of the forest. Plate 3 of Tafua village depicts the general land use pattern. Fale back on to banana plantations which in turn lead to coconut groves and on to newly cleared taro plots. Beyond this sequence, which is in the shadows of Plate 3, is the uncleared forest.

Figure 6.1 illustrates the area still covered in forest. Plantations concentrate around the volcanic slopes and have more recently spread along either side of the dirt road. The progress of these clearings are evident in Figure 4.3. Massive forest clearing took place between 1987 and 1990 (illustrated in Figure 4.3) and this has resulted in the current situation displayed in Figure 6.1. The clearance
resulted from a number of factors. Firstly Cyclone Ofa in 1990 blew down, on average, 30 percent of the trees in the Tafua preserve and resulted in virtual total defoliation. In addition, just three weeks after the cyclone, a fire burned for over two weeks destroying about 20 percent of the remaining lowland rainforest (Elmqvist 1993: 62). Cyclone Val in 1991 surprisingly did less damage to the forest but, in combination with Ofa, led to around half the trees in the preserve dying. The defoliated and dead trees in the background of Plate 3 are testament to this damage. The extension of plantations that has led to more forest clearance is partly related to the destruction of old plantations by the cyclones.

Plate 3: Tafua village viewed from volcanic cones

Fieldwork conducted for this research in May 1994 identified a range of practices occurring within the forest. Food gathering activities included hunting pigs, pigeons and bats (flying foxes), as well as gathering pineapple, nuts, 'ava root, and ufi. The forest is also a source of medicinal plants. For instance Nonu leaves are picked, wet, then rubbed on the skin to soothe aches. The stem of fuaufua is scraped and applied to wounds. Other products gathered from the forest include posts and ribs used in fales, palms for thatching fale, and firewood.
Traditionally sa or tapu were applied for one, two or five year periods to control the harvest of pigeons and bats (Jackson 1994: pers. comm.). Today bat and pigeon hunting are prohibited in the preserve. The other activities have continued unaffected since the agreement.

The most immediate impact of the agreement at the operational level was the construction of Tafua Primary School (Plate 4). Of the original WS$150000 committed by SNF, approximately WS$90000 was utilised on this school building (Peteru 1993: 4). Previously the school consisted of a Samoan fale but this was completely destroyed in Cyclone Ofa just one month after the conservation agreement was signed. The western-style design of the new building is seen as somewhat inappropriate and expensive for a Samoan village context, but this style is the law under the Education Act (Siaosi 1994: pers. comm.). Much of the money allocated for the school was used for urgent repairs following Cyclone Ofa. Approximately WS$20000 was spent on three water tanks and roofing iron for those aiga whose fale had been destroyed (Anita and Ulu Taufa'asisina 1994: pers. comm.). In addition each aiga received about WS$200 to assist with food supplies following the cyclone (Tafua Village, April 1994).

Photo 4: Tafua Primary School - the Swedish provision of the conservation agreement.
SNF assistance has financed other village projects. A canteen and an experimental solar power unit were provided but both have been inoperative since Cyclone Val (December 1991). Monetary assistance after Cyclone Val was largely used to repay a village debt but also funded repairs to the school and WS$9500 was distributed amongst aiga by matai (Peteru 1993: 4). The cutting of trails through the forest in 1991 was partly funded by WS$7000 from SNF (Ersson 1994: 14). The trails are part of an ecotourism plan that aims to generate long-term income for Tafua.

Ecotourism constitutes the only ongoing visible practice resulting from the agreement. However it is largely small scale with only one regular formal operation. This official eco-tour is based from a hotel about 20 km from Tafua village. Amongst a range of tours it visits the Tafua Peninsula about once or twice a week (Anita and Ulu Taufa'asisina 1994: pers. comm.). On such visits the operation pays the village custom fee of WS$5 per person. Tourists may either follow a coastal trail walking along black lava cliffs past Tafua village, or a trail through the forest to the volcanic cones where flying foxes can be viewed within the crater forest (Plate 5).

Plate 5: Small scale Ecotourism - guide on trail overlooking volcanic crater in Tafua forest.
The village has been host to several organised groups of visitors. In 1988, prior to the agreement, 20 students from Britain stayed in Tafua for two and a half weeks. Together with a group of 22 Swedish students who visited in 1990, these groups have provided income of approximately WS$2200 (Anita and Ulu Taufa'asisina 1994: pers. comm.). These payments are distributed to those villagers who provided accommodation, food and other services. One aiga used the money to purchase cement and roofing iron and to pay a store bill (Anita and Ulu Taufa'asisina 1994: pers. comm.).

Visitors to Tafua are also guided through the forest informally by children of the village (see Plate 5). Most visitors are directed to the fale of the paramount tulafale (talking chief) whose children consequently guide between 3-6 people each week. The tours usually take about two hours with the visitors 'paying' the guides between WS$5-10 each (Anita and Ulu Taufa'asisina 1994: pers. comm.). Children from other aiga also guide tourists around the trails. One respondent recalled earning WS$42 for just two trips. His mother meanwhile received WS$80 for teaching a British scientist what she knew about certain plants in the forest (Tafua Village, 26 April 1994).

The Tafua Rainforest Preserve conforms to the recent idea of "extractive reserves" (Elmqvist 1993: 35). Future operations identified in the draft management plan for the preserve focus overall on tourism, but also on extractive uses of tropical forest products other than timber (Elmqvist 1992b: 29). These include fruits, nuts, medicinal plants, cultural handicrafts and fragrances. SNF has recently approved WS$74000 for Tafua. The current plan for these funds includes a cattle project, supported by an agricultural project that involves diversification into new food crops, fruit trees and spices. A soft adventure-type of tourism supplements the plan (Jackson 1994: pers. comm.).

6.2 THE POLICY LEVEL

Essentially the covenant that was negotiated to create the Tafua Rainforest Preserve is a voluntary agreement. With no statutory basis the covenant stands as a moral contract. Ersson (1994: 3) states that the key word to the contract is "respect" and sites a Samoan proverb: E pala ma'a e le pala upo. Stones may rot
but words are forever, or literally "a promise will not be violated". Being based on trust keeps the agreement simple. It involves no legal penalties or changes to land tenure. Specific bans apply to commercial logging and the hunting of bats, birds and sea turtles. Otherwise the covenant permits the harvesting of forest and marine resources on a sustainable basis. In return for the protection for a period of 50 years, the donor is simply required to finance a school building (Cox and Elmqvist 1991 and 1993). The covenant was sealed with an 'ava ceremony and the investment of matai titles to the Swedish signatories in January 1990.

Initially the project was solely managed by SNF based upon fund-raising among its members. The basic principles for the international activities of SNF includes "favour and support for development models based on healthy utilisation of natural resources, popular participation and democracy" (Swedish Society for Nature Conservation, not dated: 1). As a guideline to achieve this SNF recognises that "internationally effective environmental work depends on the existence of local environmental work and local environmental opinion in every part of the world" (Swedish Society for Nature Conservation, not dated: 4). In support of this SNF offers environmental assistance to the third world. In 1992 SNF funded approximately NZ$1.4 million towards 18 organisations and 10 short-term projects in the third world (Swedish Society for Nature Conservation 1994: 2-3).

Realising that the Tafua preserve must meet not only current needs of the village (i.e. a school) but also future infrastructural support, SNF applied for and received funding from the Swedish International Development Authority (SIDA). SIDA funding matches SNF spending on an 80:20 basis, so that for every $20000 raised by SNF they may apply for $80000 from SIDA. To date $NZ925000 has been granted by SIDA towards the three Samoan village agreements (Westman 1994: pers. comm.).

With the additional funding came a change in policy. SIDA requires that the funds be channelled through a "local" NGO. This also became SNF's new policy. They argued that it would be unrealistic and impractical to administer the project from Stockholm and to make decisions about all the details, for example buying roofing iron and cement for the projects in the villages. SNF therefore wished to
support and network with a Samoan organisation. SNF cooperation, however, "is conditional on the organizations working for democratic principles, having popular participation, aiming for sustainable use of natural resources, and having sufficient administrative capacity" (Swedish Society for Nature Conservation 1994: 6). Thus the traditional Samoan organisation, the village fono, was not considered, for when viewed from a western perspective the fono fails to meet many of these criteria.

Instead SNF channelled responsibility for the administration and implementation of the project through a new environmental NGO based in Apia. The formation of O Le Siosiomaga Society came from both Swedish and Samoan initiatives. However Swedish initiatives soon dominated the structure of the Siosiomaga Society which developed as a western-style, urban and academic organisation. When the Society's first board was elected not one member was from Savai'i. Today 70 of the 88 individual Siosiomaga Society members live in Apia with 17 of these being university academic staff. A large number are also expatriate professionals living in Apia. Of the remaining 18 members, 11 reside outside Western Samoa (Crichton 1994: pers. comm.). A president and elected board control the Siosiomaga Society's operations which are managed by 4 full-time and 1 part-time staff on a daily basis.

In April 1991, Siosiomaga was given the task by SNF of coordinating the Tafua projects. With SNF pledging institutional support Siosiomaga became a fully-fledged environmental NGO. It acquired office space, fax, phone, photocopy and computer capabilities, a travel budget, and staff salaries. As a result, as of July 1992, 66.1 percent of the SIDA funds expended have been used for project administration, and only 33.9 percent of the funds had reached the villages of Tafua, Salelologa and Fa'aala (Cox and Elmqvist 1993: 10). As more and more power and authority moved from the village fono to an outside group (O Le Siosiomaga) the original idea of flaxroots management faltered.

The injection of Siosiomaga into the project as an intermediary caused conflict. The transfer of authority to Siosiomaga was never formally installed at the village level. For Tafua this was disrespectful. The conflict deepened from this point as the village lost control and saw few tangible benefits of SNF aid at the
operating level. Siosiomaga representatives rarely visited the village and when village matai visited Apia they could see the results of the SNF aid: WS$45000 of office equipment and a WS$10000 business car, while the villagers had been refused WS$900 of assistance to replant their coconut trees destroyed by the cyclones (Ersson 1994: 15). SNF had engaged Siosiomaga to manage their village projects but as the project support from SNF moved to more general organisational support, the mandate of Siosiomaga broadened and the villages were neglected. In January 1993 Tafua village severed its relationship with SNF after being continually refused the right to remain as equal partners with SNF in the covenant.

Changes at the political level of the Tafua preserve entered a new phase in January 1994. A number of people on Savai'i who had felt alienated from O Le Siosiomaga formed a new conservation organisation, Fa'asao Savai'i, in January 1992. Initially it was to be a branch of the Siosiomaga Society but this never eventuated as Siosiomaga perceived that this would "discredit the national NGO for the credit of the island NGO" (Maiava 1994: pers. comm.). Tafua village is strongly represented in Fa'asao Savai'i and in January 1994 SNF contracted Fa'asao to administer the Tafua project. An agreement which is about to be signed between Fa'asao and SNF is based on three year funding contracts (Jackson 1994: pers. comm.). Assistance involves both Tafua project aid and non-specific programme aid. Most of the programme aid is financed through a SNF agreement with SIDA's Natural Resource Management Division (Westman 1994: pers. comm.).

Fa'asao Savai'i works through local structures: the matai system, women's committees, church and youth groups. It is administered on a voluntary basis. Education and information, membership and promotion, and project management form three working committees. Current projects include community awareness, ecotourism (developing villages as destinations), handicraft (commercial "soft" industries in villages), and tree planting. In March 1994 the membership of Fa'asao Savai'i stood at 83 individuals, 23 villages, and 14 overseas members (Jackson 1994: pers. comm.). Fa'asao shops around for its funding so that it can operate largely independent of one organisation. The United Nations Development Programme (UNDP) has funded the handicraft
project, NZODA has financed village tourism seminars and is interested in the tree planting project, Biodiversity Support Programme finances a project in Sasina, A'opo and Letui villages (see Chapter Seven), and SNF funds the Tafua project. Costs are minimised within Fa'asao by operating through fa'a Samoa. For example, meetings and workshops are held within a village fale rather than an office in Apia. Fa'asao Savai'i appears to be a predominantly flaxroots organisation.

The political level of activity in the Tafua project has been very buoyant. The evolving power and control relationships are presented in Figure 6.2. At times this activity has translated to operations within the preserve. However too often political activity has proceeded at the expense of operational activities. The policy level with regards to Tafua is now stabilising with the formulation of a draft management plan (Elmqvist 1992b). Fa'asao Savai'i has returned a sense of indigenous control to the project which was an initial aim of the preserve (Cox and Elmqvist 1991). The cognitive level of research largely reflects this turbulent history.

![Figure 6.2: Evolving Political Links of Tafua Project](source: Author)

6.3 THE COGNITIVE LEVEL

Local perceptions of the Tafua conservation agreement have been widely discussed (for example, Olsson 1992 and Elmqvist 1992a). These documents debate the motivation issues guiding the village signatories, and the degree of
understanding of the conservation concept as promoted by Cox, Elmqvist and SNF. Partly because the village of Tafua has been over-researched (Jackson 1994: pers. comm., and Elmqvist 1994: pers. comm.), interviews within the village were kept to a minimum during this research. Evidence of cognitive behaviour therefore derives from secondary documents, interviews with key personnel in the agreement, with reinforcement from a small number of village-level interviews.

As mentioned, prior to the conservation agreement the village of Tafua had refused logging proposals on several occasions. The refusals were largely due to one key actor, paramount tulafale Ulu Taufa'asisina. He has expressed his view of the value of conservation:

The Land is our lives, the Land is also our mother. The Land is sacred. I believe that the Land has provided the culture, the food, the water and other essential needs for my people. I deeply respect the honour that has been given to me, as a Chief Orator, to become care-taker of our beloved Land.

My forefathers had a dream. They had a dream that one day the Land and the Rainforest would be saved for eternity . . . . I share that dream. Five times the logging companies have been here asking for our forest . . . . I resisted, because I love my people and the Land more than the money.

I believe that we can only be masters of our destiny if we take care of our environment (translated by Siaosi Selesele, in Elmqvist 1993).

This is a very much spiritually based attitude to conservation. Elmqvist (1992a: 9) suggests that other villagers' understanding of the conservation concept of the Tafua Preserve ranged from "a full understanding of the western view on conservation from those who had acquired training and education overseas", to the more materialistic view that saw the agreement as an acceptable way of getting important village projects financed.

Olsson (1992) was commissioned by SNF to conduct an independent evaluation of the three Tafua Rainforest Preserve agreements. The resultant report titled Commitment, Consensus or Cash was supposedly an assessment from the village point of view. The report created a great deal of debate (for example, Elmqvist 1992a) especially with regards to the research methods employed. This has resulted in the findings being rejected by SNF. Nevertheless the report raises
some interesting and possibly valid issues on the villagers motivation and understanding of the agreement. According to Olsson (1992: 3), "the western actors took their starting point in conservation while for the matais, the chiefs, money was the motivating force. This results in a difference in perception which became evident in a sense of lack of ownership of the project."

The first claim that the conservation of biodiversity was the starting point for the western actors is undeniable. While they did not reject concern for the local people, as Olsson goes on to suggest, the conservation agenda was their main priority. However if, as Olsson claims, the majority of matai were motivated by money, why had logging operators been refused access to the forest in the past? Furthermore of course money is a "motivating force". The Samoan villager, just like a palagi urbanite, is motivated by money. Any suggestion that money is not a "motivating force" is idealistic. In the Tafua situation there is evidence of a base (quite possibly a small one) of people committed to conservation. So for some villagers at least this was a driving force for the agreement. However the village was desperate for funds for a new school and so this was also obviously a "motivating force" for the agreement.

The lack of ownership of the project claimed by Olsson is related to a lack of perception of SNF's objectives. The process towards agreement was rapid. Olsson articulates the process as "rushed" with the western concept of conservation being transferred too rapidly for villagers to gain an appreciation of it:

no attempt [was made] to ensure that the project concept, as seen by SNF, was clearly understood. Agreement - not convergence - was sought. There were thus no serious attempts to provide for environmental awareness or environmental education (Olsson 1992: 11).

Elmqvist (1992a: 11) rebukes this view claiming that the negotiation process involved long educational explanations of western concepts of conservation. Explaining the scientific rationality of biodiversity conservation to a non-western society is a long and ongoing task. While attempts were made, it is doubtful that a full understanding of the concepts were conveyed by the time agreement was reached.
To support the claim that the concept was not well understood and led to a lack of identity with the project, Olsson (1992) presents some examples. One view is that the forest is protected for the people of Sweden with villagers questioning why the Swedish would want to protect a small forest on an island so far from Sweden. The attitude that the project belongs to the Swedish then fosters the view that the Swedish should provide for the construction of huts, trails, etc.

The responsibility for ongoing education programmes with regards to all three village agreements was handed to the Siosiomaga Society. Plans included courses in conservation, posters, and educational material. However with the political turmoil of the project, not a single piece of paper with information about the preserve has ever been produced, despite WSS$35000 supposedly having been spent on "awareness programmes and education" (Ersson 1994: 15). A booklet describing the preserve and its plants and animals has been produced through personal finance (Elmqvist 1993). The current plan is to translate this book into Samoan and adapt its contents to primary and secondary school level.

When SNF signed the agreement with Tafua in 1990, it was conceivable that there could be an alignment of the conservation aims of SNF and those expressed by village matai. The fact that the SNF rationale for conservation was scientific and western compared with the spiritual value articulated by Ulu Taufa'asisina is unimportant providing the goals of preserving the forest are compatible. The current research, however, senses that money, has for many villagers, replaced ecological or spiritual objectives as the primary value in preserving the forests of Tafua. This is not necessarily seen as a deliberate or conscious shift in attitude of the villagers. It is rather viewed as a reactionary shift in attitude to the money that has entered the village already. The cognitive level of involvement has been predominantly occupied by this amount of money that has come into the village, as well as that which has not, and the political activities associated with this. Meanwhile the ecological conservation value of the preserve has taken backstage.

All villagers spoken to during this research spoke of the benefits of the money that has flowed to the village, as well they might following two devastating cyclones and in the midst of a taro blight. These monetary benefits are not
readily linked to the conservation of the forest. For example one respondent mentioned the cash benefits of ecotourists followed immediately by the wish to sell logs to another village for firewood (Tafua Village, 26 April 1994).

Most respondents did also have some understanding of the ecological value of the conservation initiative. However they often confirmed the suspicions raised by Olsson (1992) of associating these benefits with the Swedish. In response to "why are you protecting the forest?", people answered: "SNF wanted to save birds, bats and trees for scientists to study" (Tafua Village, 18 May 1994), and "the Swedes said because of the birds and the trees. The trees are spread from birds" (Tafua Village, 26 April 1994). So while there is evidence of an understanding of the environmental values of protecting the forest, it appears to be a rather sceptical and recent understanding that requires reinforcement.

Everybody in Tafua is aware of Sweden and SNF. I could sense a feeling of disappointment within people when I explained I was from Niu Sila (New Zealand) and not Sweden. This knowledge of SNF spreads to an awareness of O Le Siosiomaga and Fa'asao Savai'i. The positive outcome of all this is that environmental issues do enter the cognitive level of behaviour of Tafua villagers. Articulation of these environmental issues now must be related to local benefits of the Tafua Rainforest Preserve.

6.4 ASSESSMENT

The Tafua project has been led by activities at the policy level of behaviour. This is rather surprising considering it is a non-government led approach. Foreign assistance did initially focus on operations within the village such as the primary school. This assistance was continually directed at giving the village an end, rather than teaching them a means to this end. Hence there was the provision of a school, solar panel, water tanks and money rather than demonstrable assistance with ecotourism that could provide the village with a means to future ends. The impact of the two cyclones on this assistance however must not be ignored. The resultant immediate needs of cyclone relief has contributed to this negligence of longer-term operational assistance.
The activities discussed at the political level soon absorbed the majority of foreign aid. As mentioned, up to two thirds of SIDA funds were taken up at this administrative level leaving less for village operations. The concentration of activity at this level has also resulted in initiatives at the cognitive level being neglected. Although villagers show an awareness of conservation, this derives from the one positive benefit of the project's political exposure, rather than from any pro-active projects at the operating level.

It is necessary to assess the broader context of this agreement-type approach to conservation. The most common argument against this approach is the same criticism that is levelled at conventional aid: "it produces a dependency mentality, stifles self-help and local initiative and may create needs which didn't previously exist" (Peteru 1993: 3). One-off village development projects (i.e. a school) may remove an immediate threat to the rainforest, but as Atherton (1994) questions, are these forests any safer now that the school has been built? Or alternatively, is the life of the forest dependent on more aid? Reti (1993: 7) suggests that whilst heavily capitalised projects are important, they should be treated as one-off grants. If such grants are repeated, conservation may be unnecessarily expensive and therefore unsustainable for small undeveloped countries like Samoa. Peteru (1993: 6) claims that the Siosiomaga Society has received requests from other villages wanting similar financial assistance. This is rendering a serious misconception of a "how-much-do-you-want-for-our-resource" mentality.

Local people do however need outside help in establishing and managing protected areas. They depend on other villages for their support, agencies for funding and advice, and the paying public to generate income. What then is apparent is that financial incentives must be directly linked to the establishment and management of the protected area. So financial projects must be both environmentally sustainable and demonstrably linked to the conservation of the forest: "All material benefits of a project must be clearly tied to its conservation actions. Local project participants must perceive development activities as incentives for sustainable management of the resources, the ultimate goal of the project" (Brown and Wyckoff-Baird 1992).
If conservation is not seen in villagers' personal best interests, then this jeopardises the long-term commitment to conservation projects (Less 1992a: 8). Compensation payments do not foster local initiative and enterprise, and instead may build unrealistic and rising expectations about levels of compensation. Lees (1994: pers. comm.) argues that a conservation project is doomed from the point when villagers think they are being paid for it. In Tafua the school was not readily identified in relation to the rainforest preserve. The planned initiative to incorporate the booklet on the preserve into the school system may create some valuable links between the two but it remains a tenuous connection.

The Tafua project has been directed by outside forces. This approach has acknowledged both the ecological and socio-economic importance of the project but has often failed to identify with the cultural aspect. Cox and Elmqvist (1991: 321) recognise the importance of the Samoan culture from their past experience: "careful analysis and knowledge of local cultures and languages are necessary, as is a willingness to engage in negotiation according to local customs". Unfortunately the local culture was too often bypassed in the Tafua project.

The establishment and incorporation of O Le Siosiomaga into the project was alien to the local village culture. Operating as it does outside the established social structure, is a foreign concept in itself in the South Pacific in general (Baines 1984: 358). Siosiomaga's isolation was enhanced when its authority over the project was never formally installed. Meleisea (1987: 114) points out that without formal instalment of authority through, for instance an 'ava ceremony, the authority is not recognised. The technical language of the largely western and academic Siosiomaga then went on to clash with the cultural language of Tafua. Occasionally people with good insight into both the western and Samoan culture were utilised as cultural bridges (for example Elmqvist 1992a: 15).

Empowering Siosiomaga with control and authority over the project bypassed the traditional village structure of the fono. SNF and SIDA sought a local NGO on the basis that it would be more effective at communicating assistance at the grassroots level. However the fono, which represents an association of customary landowners, was perceived to lack the skills and democracy in administration (Cox and Elmqvist 1993: 10). While SNF and SIDA should be aware of certain
'objectionable' aspects of the social structures of recipient cultures, they must show respect for the culture and social structure. Change in the domestic social and cultural structure must come from within. Empowering a western-style NGO did little for democracy or grassroots assistance. Admittedly village *fono* may lack the money management skills and planning perspective needed to fulfill sustainable conservation initiatives. In the case of Falealupo Rainforest Preserve an independent agency, a local bank, is assigned the task of accounting for donor funds. Withdrawals of the funds are made upon request of six of the highest *matai* of the village. This method minimises administration expenses but gives the donor little say over how the money is spent.

The experience of Tafua is not unique. In June 1993 a group representing 1.2 million indigenous Amazonians sent a declaration to the 'World Conservation Community'. While encouraging the interests and concerns of western environmentalists, the declaration called for contact with them to be based on a respect for their culture and values:

*While we appreciate your efforts on our behalf, we want to make it clear that we never delegated any power of representation to the environmentalist community nor to any individual or organisation within that community.*

*We want to represent ourselves and our interests directly in all negotiations concerning the future of our Amazonian homeland . . . . We propose that you work directly with our organisations on all your programs and campaigns that affect our homelands.* (Indigenous Peoples of the Amazon 1989: 77-78).

The events in the Tafua project send out a similar message.

Tafua has undergone considerable change since the various agencies, reports and money came into it. This change has come rapidly for the benefit of the forest and welfare of its villagers, particularly following the cyclones. However the outside interest shown in Tafua has neglected the village culture and social organisation. This resulted in, basically, local rejection of outside involvement. As a conservation regime the Tafua project incorporates ecological and human socio-economic welfare, which is encouraging. What is absent is a priority for cultural sustainability.
Chapter Seven

The Integrated Conservation-Development Approach: The Case of A'opo-Letui-Sasina Conservation Area Project

Integrated Conservation-Development Projects (ICDPs) use development as a means of achieving conservation objectives. So while the core objective of these projects is still protected area conservation, the promotion of socio-economic development in surrounding communities is directly linked to this objective. This represents a significant shift from pure conservation as it does not hold back from 'exploitation' of the forest. Sustainable extraction rates are added as a proviso in support of conservation objectives. Brandon and Wells (1992), Brown and Wyckoff-Baird (1992) and Wells and Brandon (1992) provide general descriptions of the ICDP strategy. In a sense the approach looks 'beyond the boundaries' of the protected area to focus on local people and cultures as users and possibly owners of the protected area. Achieving a socially and physically sustainable balance between conservation and development consequently becomes the key to the strategy.

Government attempts to establish protected areas in Western Samoa have rejuvenated with this new approach to conservation following a period of inaction. However the approach restricts the role of government to that of an advocate and catalyst for conservation initiatives. International funding agencies, the government, and NGOs collaborate with villages as the ultimate decision-makers in such projects.

The biological criteria for current ICDPs in Samoa were identified by Park et al. (1992) in a lowland biological survey. The initiative for this survey came from both the Governments of Western Samoa and Aotearoa/New Zealand. NZODA provided financial assistance for the project while New Zealand's Department of Conservation and Western Samoa's newly established Division of Environment and Conservation (DEC) supplied the expertise for the survey. While the
biological data gathered adds to earlier reconnaissance surveys, for example that of Pearsall and Whistler (1991), the method of obtaining and presenting the information was unique. The survey was undertaken in a context in which "biological surveys were done in spite of, and largely without connection to villages and their authority" (Park 1994: pers. comm.). Recognising that the key to conservation lay within fa'a Samoa, villages were actively involved in the collection and delivery of the results of the survey.

Five key sites were prioritised for urgent conservation action in the survey report: Uafato-Ti'avea Coastal Forest and Sataoa-Sa'anapu Coastal Wetland on Upolu, Nu'utele-Nu'ulua-Fanuatapu Islands, and Vaoto Lowland Forest and A'opo-Letui-Sasina Lowland Coastal Forest on Savai'i (Park et al. 1992: 50-52). Upon the insistence of members of the survey team, NZODA agreed to add a distinctly new phase onto the survey, the presentation of the results to villages. Meetings were held with Sataoa-Sa'anapu villages and A'opo-Letui-Sasina villages in which the results of the survey were presented and conservation objectives discussed. As the scientific report was of limited application to the average Samoan villager, photographs and slides were major mediums in the delivery of the results. Fa'a Samoa dominated the structure of the meetings which were conducted almost entirely in the language of Samoan oratory.

Both presentations indicated the general support of villagers towards the government's intentions. This was reinforced by an appreciation that the government had chosen to bring the issue to the villages so that conservation could occur on the villages' terms, as several villagers expressed being neglected in previous government development projects (Park 1992: 8). As a result the villages rapidly adopted the principles of the conservation proposals. The concept of conservation and the actual process involved in establishing conservation areas was not however immediately clear to most villagers, or indeed the government (Liu in Park 1992: Appendix 1). Clarification was required on several key points. For instance, the fear that the government would acquire ownership to the land had to be allayed. The government also had to stress, following the Tafua and Falealupo projects, that the villages would not automatically get money as a result of a conservation agreement.
The inclusion of the villages in the biological survey, particularly the village presentations, has been absolutely crucial in gaining the support required for the ongoing conservation initiatives (Sesega 1994: pers. comm.). Planning for ICDPs in Sataoa-Sa'anapu and A'opo-Letui-Sasina has proceeded over the two years since the village meetings. Village liaison has dominated this phase. The design of project plans is now nearing completion to be followed by their implementation, providing the plans are accepted by all parties. This chapter will now examine the experience relating specifically to the A'opo-Letui-Sasina ICDP. There are many similarities between this project approach and the Sataoa-Sa'anapu project and consequently some of the broader issues will be discussed in relation to both projects.

7.1 THE OPERATING LEVEL

The lowland ecological survey described the A'opo-Letui-Sasina area as: an extensive, intact, diverse and high quality area of high forest (with important stands of ifilele), low lava forest and scrub types on northern Savai'i. The site and areas of upland forest that adjoin it inland contain the highest and most diverse bird counts made in the entire survey (Park et al. 1992: 51).

Figure 7.1 illustrates this area of conservation interest. Open vegetation including scrub and low forest dominate the younger lava flows while lowland forest is found on 'islands' of older lava flows.

Outside of the core conservation area but included in the ICDP are the villages of A'opo, Letui and Sasina, containing 405, 272, and 616 people respectively (Department of Statistics 1992). The core area itself is not particularly suitable for agricultural development but contains valuable timber species and plantation forestry potential. Agricultural plantations align the main road, especially between Sasina and Letui, and inland from this along several village plantation tracks and roads (Figure 7.1). A'opo and Letui have tracks to the coast and hence subsistence fishing is a common activity in all villages.

Since the lowland ecological survey the operating level of the ICDP has been based around a 'talking stage'. The survey identified the biological criteria of the project and now operations have moved on to a socio-economic feasibility study.
The main tasks are to document the current and potential uses of the forest, the needs of the villages, and to identify potential forest-based enterprises.

A forest use survey and a socio-economic survey have been completed giving an indication of the current uses and requirements of the people and their land. The forest use survey identified all the different products extracted from the forests and attempts are being made to quantify the costs of obtaining these resources from elsewhere if the forest was felled. This is considered central to the project as it not only puts a value on and identifies the resources used, but also builds a relationship with the villagers by asking something of them (Division of
Environment and Conservation 1993: 12). The socio-economic survey identifies particular methods of livelihood, for example cash cropping, helping to establish the village needs and desires from the forests.

A resource use survey has also been completed. It is being used to derive sustainable yield potentials of the forest resources identified in the previous two surveys. Taking ifilele as an example, this survey has measured the age and stock of the resource in the forest, its growth rate, and is now in the process of recommending a sustainable harvest regime. A replanting and monitoring programme is also likely with the latter considered a necessity due to the inherent unpredictability of the sustainable yield concept.

The above information gathering exercises are a prerequisite for the market development of the forest resources. Business operations are currently proposed under three types of activity. Commercial logging is not included in the plans as even on a sustainable basis it conflicts with the policy of the donors. Consequently the planned commercial use of forest trees is concentrating on carving. Ifilele presents a strong and durable resource highly valued for carving and now restricted to western Savai'i (Kininmonth 1982). The handicraft project of Fa'asao Savai'i is assisting in developing this enterprise. Marketing opportunities exist with a hotel which has close connections to the NGO. Field research undertaken in May 1994 identified a number of skilled and practising carvers in Letui and Sasina.

Ecotourism operations are considered to hold potential for economic development (Division of Environment and Conservation 1993: 15). One ecotour operation currently runs as far as Sasina but does not regularly visit further west. Lava fields provide the major attraction in the area but other sites of similar interest exist closer to the major hotels. In reality such an enterprise would probably have to be on a small scale. A new beach fale resort just 7km from Sasina may benefit this proposal.

The final economic development operation planned is the marketing of medicinal plants. A long-term aim is to keep the forest intact for pharmaceutical development. However a more realistic and short-term operation is producing
and marketing products locally, especially in Apia. The medicinal uses of the
forest were often articulated during village interviews for this research. The
villages therefore have the knowledge and, unlike many villages, the forest to
supply these resources.

Assistance in changing operational behaviour outside of the core conservation
area is also planned. Current village agricultural lands, if used more sustainably,
would decrease the pressure to expand crop lands into the forests. Thus new
strands of crops, irrigation, erosion control and agroforestry are potential
activities for these areas.

The operating level of activity has not moved beyond this planning stage.
Meetings, discussions and surveys have dominated in the absence of concrete
actions and practices. This is largely due to the direction of behaviour occurring
at the policy level.

7.2 THE POLICY LEVEL

The policy level of activity associated with the A'opo-Letui-Sasina project
occurs at a number of scales from international donor policy to the individual
village polity. For the Government of Western Samoa the legal framework for
the approach derives from the Lands, Surveys and Environment Act 1989.
Essentially this statute is an update of the Lands Ordinance of 1959 with the
inclusion of Part VIII "Environment and Conservation". The overall mandate
established by the Act is "to make provision for the conservation and protection
of the environment and the establishment of National Parks and other forms of
protected areas" (Department of Lands, Surveys and Environment 1989: Section
95). More specifically the Act provides for the Minister of Lands, Surveys and
Environment to "enter into agreements with owners and occupiers of customary
lands for the purpose of protecting their natural resources and environment", and
to "enter into agreements with any competent organisation wishing to assist with
the conservation and protection of the natural resources and environment of the
country" (Department of Lands, Surveys and Environment 1989: Section 104).
The Act therefore establishes the potential for official village conservation
agreements and recognises that the government cannot provide for the effective
protection of areas on its own (since land is vested in the village and the
government has little power over land).

In May 1990 DEC was established within the Department of Lands, Surveys and
Environment (DLSE) to be the implementing agency of the new legislation. The
goal of DEC is consistent with that articulated in global strategies such as the
WCS: "to preserve and manage natural resources in a way that is conducive to
the peace, progress and prosperity of Samoan people" (Reti 1989: 3a). There are
four components to DEC's approach: it is authoritative, outward-looking as a
catalyst and facilitator of sound conservation practices, communicates through
"outreach", and works in partnership with NGOs and international organisations
(Reti 1989: 3b). Field operations are an important element in distilling the
Division's knowledge and guidance of its concepts.

The work programmes of DEC are somewhat determined by the wishes of
donors. Between 1990 and 1994 staffing levels jumped from 4 to 17. However
over the same period budgetary assistance only increased from WS$227000 to
WS$265000 (Department of Lands, Surveys and Environment 1991: 4, 23 and
Butler 1994: pers. comm.). In real terms the budget has held constant while staff
levels have increased more than four-fold. Consequently the operating budget in
1994 is approximately WS$80000 compared with WS$155000 in 1990. This
explains the reliance on extra-budgetary funding for any programmes outside of
normal operations. As Reti (1994: pers. comm.) explains: "There is money for
salaries, office equipment . . . but not projects - they are luxuries for when you
der outside assistance".

Currently four expatriate staff hold key positions within DEC. NZODA funds
two of these long-term advisory positions as part of an ongoing support
programme equating to approximately NZ$1 million by June 1994 (Ministry of
Foreign Affairs and Trade 1993: 61). Recently NZODA environmental support
to DEC has been split into two programmes. One programme focuses on general
project support and in particular on funding an upland ecological survey to
complement the lowland survey of Park et al. (1992). The objective of the
second programme is to train Samoan environmental planning and biodiversity
staff as counterparts to the New Zealand advisors. The term of both New
Zealand advisors finish within the next 12 months (Butler 1994: pers. comm.).

DEC's village conservation strategy is administered within a biodiversity unit (earlier known as the National Parks and Reserves Unit). A senior biodiversity officer (New Zealand advisor) and environmental officers implement the government's political agenda. At the individual project scale this is strongly subject to the political mandates of international donors. The A'opo-Letui-Sasina project reflects the political approach of the Biodiversity Conservation Network (BCN).

The BCN is a five year programme funded by USAID. The implementing agent of the programme is the Biological Support Programme, representing a consortium of the World-Wide Fund for Nature, World Resources Institute, and The Nature Conservancy. The stated goal of the programme is "to support initiatives that enable people to conserve biodiversity while meeting their economic and social needs" (Biological Support Programme 1993). Strategies supported must be enterprise-based approaches to conserve biodiversity, such as ecotourism. Collaborative projects are preferred to those of a single organisation. Planning grants of up to US$50000 are funded followed by implementation grants of up to US$300000 per annum for a maximum period of three years (Biological Support Programme 1993). Annual audits are required to account for these funds.

DEC has received a US$33000 planning grant under the BCN (Division of Environment and Conservation 1993). DLSE is managing these funds in its established accounting section. Other collaborating agencies are contracted out by the Department. Fa'asao Savai'i is the major consultant and monitoring agent. It provides an effective bridge between the government (DEC) and the villages. Villagers also contract their services out by assisting in the survey work and general village liaison. Other organisations such as the Ministry for Women Affairs, which is preparing a role in implementing the project, are included in the collaborative approach.

The final decision-making level of this project is that of the individual village polity. A'opo and Sasina are the two principal villages involved. Letui is
essentially a more recent satellite village of Sasina, as is Fagae'e to the east of Sasina which is also included in the proposed agreement. A long-standing boundary dispute exists between A'opo and Sasina. Incidentally this is one reason why much of the forest still stands. In the context of the conservation proposal it is hoped that this dispute can be ignored by getting all villages party to the final agreement. The village level is recognised as the key to the future. In recognition of this, Village Conservation Committees are being established. Depending on how successful these committees are, particularly in grasping the concept of the project, it is conceivable that in the future they could control the budget for the ICDP (Butler 1994: pers. comm.).

7.3 THE COGNITIVE LEVEL

The presentation of the lowland ecological survey to the villages revealed that most villagers did not think of their forests and lagoons, as part of some wider national resource. Perhaps this concept itself is a western one. An awareness of the conservation significance of their land, or of the plight nationally of the ecosystems that make their lands significant for conservation, was consequently lacking (Park 1992: 7-8). In effect a villager's sense of place reflects their own customary lands which run in a strip inland from the coast. Their lateral sense of place, and hence knowledge of adjacent ecosystems, is less adequate. In other words their identification with the environment in Apia or Auckland may be stronger than that with a neighbouring village's environment (Park 1994: pers. comm.). However, the principle of conservation still received positive recognition from those villagers who attended the village presentations.

Since the lowland presentation, specific educational programmes and general village liaison have further promoted the concept of conservation. In March 1993 Fa'asao Savai'i and DEC held a conservation awareness workshop in Sasina. During fieldwork for this research in May 1994, DEC survey work was proceeding in all three villages, further contributing to conservation attitudes. These survey teams spoke to numerous members of each aiga establishing a broad awareness of the conservation negotiations.

Several public figures including the pulenu'u (village mayor) and faife'au
(church ministers) were interviewed in Sasina, Letui and Fagae'e. While their personal views on conservation and the proposed conservation area are not likely to be very representative, several had lived or received education overseas, their public interactions rendered them knowledgeable of wider community views.

The first perception gained from these interviews, probably because it was a prominent issue at the time, was the dissatisfaction and disillusionment amongst villagers over logging royalties. In 1992-93 Tui Va'ai, a sawmill company based in nearby Asau, logged the forests of Sasina for 2-3 months. The Minister of Agriculture, Forests and Fisheries had intervened in this logging aware of DEC's proposals but this "interference" was strongly opposed by the village and logging has continued. When royalties of WS$30000 were received and first divided between the villages of Letui, Sasina and Fagae'e, and then distributed from there, one aiga received WS$160 (Fagae'e village, 3 May 1994). For 2-3 months of logging the villagers on average only received WS$30 per head. Village attitudes to this are clear: "It was all gone in one week. It made no difference" (Fagae'e village, 3 May 1994). Logging operations in Sasina's forests have since been intermittent but regular. In May this year, after considerable effort, the villages got another payment from Tui Va'ai. This time matai in Fagae'e received just WS$25 for six months of small scale logging. The growing realisation that logging offers no panacea for development aspirations is fostering interest in the conservation proposal.

The second general perception of villagers towards the ICDP proposal presents a major challenge for the project coordinators. While logging operations may have little to offer, there is a growing feeling that the DEC has nothing to offer: "The DEC will come again and ask all their questions but they do not offer anything in return" (Letui village, 6 May 1994). DEC acknowledge this dilemma: "[we] clearly need to get something tangible going now to stop the logging that is still continuing" (Butler 1994: pers. comm.). The DEC strategy of motivating villages by "recognition of the inherent importance and benefits of conservation management of resources to the village itself" (Cornforth 1992) is commendable. However, at this early planning stage some more immediate benefits from these actions are needed to first maintain the support of the community, and in the longer-term change their behaviour. For instance, while in Aotearoa most people
recognise the importance of recycling aluminium cans, it often takes a more tangible benefit of these actions, 'cash-for-cans', to change people's behaviour. This is especially the case amongst poorer people. The expectations of the villages are influenced by information of the material benefits associated with the Tafua and Falealupo projects. The reality with this ICDP is that, given the uncertainties in attracting an implementation grant from BCN, DEC can only be "positive but conservative and vague in what it can offer" (Park and Sesega 1993: 3). This does not satisfy the wishes of many villagers who want definite answers to the types and amounts of benefits they will receive as a result of the agreement.

The high expectations amongst villagers of conservation agreements has recently been fostered by an agreement between A'opo, O le Siosiomaga, and SNF. In this agreement SNF financed Siosiomaga Society to purchase the logging rights to an area of mid-slope forest belonging to A'opo. The agreement is basically a "straight out business deal" amounting to WS$112000 (Maiava 1994: pers. comm.). Siosiomaga of course have no intention to log the forest but retain the rights to it for a period of 20 years. This large sum of money received by A'opo, for an area of forest that is not in immediate danger from logging, contributes to a view amongst villagers in A'opo, Letui and Sasina, that their lowland forest could bring greater financial benefits than the DEC proposal will generate.

The DEC proposal places a great deal of emphasis on the villagers gaining an understanding of the project. In particular it requires an understanding of the concept of sustainable use of the forest resources. Visual illustrations of the sustainable use concept, using local examples, are being developed by a local high school. While promoting local initiative is positive there is also a need for DEC to (re-)declare its position. There is confusion in the villages of DEC's motives: "They only ask questions. They never give their opinion or try to teach why" (Fagae'e village, 6 May 1994). This certainly indicates a reversal of former development approaches. There also exists a misunderstanding that the project is being negotiated with Sweden. This perception no doubt comes from knowledge of the Tafua project, and the visit to Sasina of the Swedish scientist who initiated that project in 1992 to discuss conservation proposals. Also the recent agreement between A'opo, O Le Siosiomaga, and SNF has caused some confusion. DEC
must therefore affirm its position and motivations, which may also help to dispel any notion that the villages will be paid to save their forests.

Everybody interviewed in Letui, Sasina and Fagae'e for this research was aware of the biological benefits of the conservation initiatives. Most responses related to the water retaining benefits of the forest: "The wet shady ground is good for cropping. The sun dries the land out on the cleared land" (Sasina village, 5 May 1994). Water is a big issue in all three villages. The reticulated water supply in the villages is very unreliable and so rain and spring water are relied on. Coupled with the youngest volcanic rocks and lowest rainfall in Western Samoa, the water problem produces strong attitudes. The benefits of the forest for preventing soil erosion, medicinal plants, timber and bird life were also expressed. However it was also stated by some respondents that many villagers live for each day without thinking of the future and either ignore or do not understand conservation objectives. The cognitive shift towards sustainable development therefore needs to be supported and encouraged by more immediate and direct benefits.

7.4 ASSESSMENT

The ICDP approach being adopted in A'opo-Letui-Sasina attempts to motivate people through a recognition of the benefits of conservation at the cognitive level of behaviour. This contrasts to other strategies that offer incentives at the operating level to motivate conservation. The ICDP strategy is consequently often long-term (it can take longer to construct a new attitude than a new school) involving much low-key ground work. This ground work sets the ecological, social, economic and cultural needs and desires of the local people. Recognition of this local context and local participation in the project provides a sense of flaxroots conservation or conservation from below.

An analysis of ICDPs found that many projects were experiencing difficulties in meeting either their conservation or development objectives (Wells and Brandon 1992). Often these projects had "misdiagnosed" the fundamental local issues. The projects that undertook systematic analysis of the project context were among the most successful, at least in part because the project design matched
local conditions and needs. However there still appear to be a number of conceptual dilemmas and design trade-offs in the ICDP approach itself that can fundamentally affect the practical performance, and ultimately the conservation of protected areas. The broad dilemma, even at a conceptual level, is the linking of conservation and development objectives. This will be discussed in the concluding chapters. A number of more immediate contradictions exist in the ICDP approach that can be related to this case study of A'opo-Letui-Sasina and a number of other ICDPs in the Pacific islands.

Incorporating local participation into decision-making is a common goal of ICDPs. Ideally such projects would be village initiated and managed. At a national level the two Western Samoan ICDPs are managed by DEC. A palagi biodiversity advisor coordinates this work and palagi staff occupy decision-making positions in general. Farago (1993: 15) states that:

> it is now accepted practice that 'experts' should not be brought into a country from 'outside' to carry out a project without there being formal arrangement for transfer of knowledge to local staff. Most countries and many donors will not agree to a project without these 'counterparting' arrangements, as they are often called.

Both the Samoan Government and foreign donors have failed to fund a biodiversity counterpart to date, although, as mentioned, this policy is included in the NZODA budget for 1994-95. Perhaps there is a lack of 'qualified' local people. More likely there exists a lack of financial commitment. Even so the ICDP experience suggests that language and cultural familiarity often prevail as criteria over biological expertise. It appears that as long as palagi staff occupy key positions within the DEC there is no incentive for the Western Samoan Government to fund Samoan positions (Dobbie 1994: pers. comm.). Within the DEC this has created a dependency on the palagi staff. There is evidence that extremely capable local staff will not initiate or activate an issue while there is a palagi lever to do so. Some palagi staff within DEC suggested that they were propping up the chairs for the Samoan staff who would not sit down until the palagi staff had actually left DEC.

At the village level of ICDPs local initiation is again difficult to foster. A dichotomy exists between the requirements of international donor agencies and the capacities of village peoples. The project documents of both the BCN
(Biological Support Programme 1993) and for the Sataoa-Sa'anapu project (South Pacific Regional Environment Programme 1992b) are inherently technical reports. Developing management proposals from the village level is consequently extremely difficult. The technical language simply does not complement the village cultural language. Implementing projects involves further complexities. The South Pacific Biodiversity Conservation Programme (SPBCP - as the project coordinator for the Sataoa-Sa'anapu ICDP) requires annual tripartite reviews, annual work programmes, a mid-term review, regular reporting, a terminal report, annual auditing reports, and two accounting and financial reports each quarter (South Pacific Regional Environment Programme 1992b: 37-38). The reason for so much reporting - there were three times as many in the first draft of the programme document - has two sides. ICDPs are new to donors who are still testing the hypotheses of the approach which requires reporting to support their research. The other side is a distrust of the recipients to spend funds effectively, particularly given the view that "the village is not a democracy" (Butler 1994: pers.comm.).

The collaborative approach aims to bridge the gap between villagers and international donors. It does this with some success. Samoa is fortunate to have a biodiversity specialist in the DEC to plan projects, and a domestic NGO to further bridge the gap to the village. Foreign NGOs assist with ICDPs in other countries. For instance the Royal Forest and Bird Protection Society is working on a project in Vanuatu and the Maruia Society in the Solomon Islands. In Vanuatu a community whose members could not read or write, and were very much 'non-western', collaborated with the government who wrote a plan under the SPBCP. Constant liaison during the preparation of the plan has contributed to what most closely resembles a flaxroots conservation project from the nine ICDPs endorsed by SPBCP (Reti 1994: pers. comm.).

Project designers often "hide" their true conservation agenda from local communities (Brandon and Wells 1992: 564). There is evidence of this in the A'opo-Letui-Sasina project. In an attempt to find out what the villagers feel is important, the DEC is trying not to influence the process by commenting on what they perceive as important. What the villagers see as important however, may not match the objectives of the project or donors. Once again trade-offs are
The urgency of the area's conservation problems dictates against the lengthy process of developing local support and participatory capacity, however important this may be for long-term success. The socio-economic assessment of the ICDP approach would have been inappropriate for the immediacy of the logging problem faced in the Falealupo context. Meanwhile enforcement procedures common in the national park approach may do little to stop long-term agricultural encroachment. Biodiversity is being compromised by continuing logging in the A'opo-Letui-Sasina forests while the socio-economic feasibility study is proceeding. Again it is essential to balance the urgent need to 'save things' against this long-term process of information gathering.

Identifying appropriate incentives to induce conservation practice is important yet the A'opo-Letui-Sasina ICDP approach concentrates on a long-term strategy of modifying the cognitive level of behaviour. Presently Canadian aid is assisting the DEC with a public education/information programme in the remaining priority areas of conservation, as a beginning to future village negotiations. While commendable in the long-term, this strategy neglects both the immediate needs and aspirations of the local villagers. In Sasina the aspiration for a reliable water supply was strongly articulated. A water supply project could be developed with strong linkages with the conservation of the forest. The planning grant of BCN does not allow for such operational projects which must wait for the next stage - an implementation grant. There is a clear need for a short-term tangible benefit to support the long-term efforts of change directed at the cognitive level. The structured BCN/ICDP approach requires further flexibility to allow for grants to satisfy immediate needs and wants at the village operational level. It must be recognised that villages have different needs than conservationists and these are often immediate projects that cost money. So while long-term cognitive level approaches satisfy future sustainability, this must be balanced against more immediate and identifiable incentives.

Under the ICDP approach the protection of forests is a more equal component to development objectives rather than a central motivating force. This has come with the recognition that the two are inseparable. The approach illustrated for
A'opo-Letui-Sasina is a process-orientated strategy aiming for a negotiated outcome rather than a set of specific targets or goals. Local people are therefore necessarily included in the ICDP approach. However the collaborative approach puts a lot of decision-making levels beyond the villages. Villages do control the ultimate level of decision-making but local initiative is still largely dependent on the wishes of donors. How far towards flaxroots conservation and sustainable development does this shift in approaches take Samoa?
Chapter Eight

Conservation from Above or Below: On Whose Terms are Samoa's Forests being Saved?

The conservation agenda presented in the three case studies illustrates a fundamental shift in approach. To some extent this shift has been a necessary response to the reality of Western Samoan customary land tenure. However it is also a reaction to shifts in the conceptualising of conservation and, ultimately, sustainable development. Included in this is the apparent transfer of conservation initiatives from the operating to the cognitive level of behaviour. In a sense conservation has moved from a top-down government dominated process to a bottom-up non-government local process. Yet on whose terms is conservation actually occurring? The admirable rhetoric of 'flaxroots conservation' has to be balanced against the reality of the huge international funding agencies that ultimately control conservation aid. In this chapter the three case studies will be discussed in relation to these issues in Western Samoa. Then the situation is viewed briefly in the perspective of the broader South Pacific islands regional conservation agenda.

8.1 TOWARDS FLAXROOTS CONSERVATION

From 'Parks First' to 'People First'

The concept of protected areas grew from concern over the effects of 'development' on natural systems. The first strategy analysed, O Le Pupu-Pu'e National Park, was a direct response to concern for the detrimental environmental consequences of agriculture and forestry projects. It was an environment-specific project that stood out as an 'island of anti-development in a sea of development'. NZODA had funded forestry development projects in Samoa since 1971 and the national park became a separate project for forestry conservation. The approach adopted was simply a 'go out and do' conservation
initiative. The project was based predominantly on its biological criteria - 'parks first'. It was not immediately necessary to deal with land ownership issues so locals were largely excluded from the process. Nature was separated from humans with no obvious link between the environment, which held sway over one side of a line, and development on the other side. Still today the relationship is not apparent. The benefits of the park to neighbouring villages is not obvious. The park itself is given no incentive to create revenue, through, for instance, entrance fees for foreign visitors, because any money that it does raise is absorbed into a government consolidated fund and not seen again (Butler 1994: pers. comm.).

The limitations of the national park approach, when applied to rural Western Samoa, quickly became apparent. The system of land tenure was usually identified as the major obstacle to the rigid national park approach because land is vested in the hands of the village yet has to be transferred to the government. This 'problem' occupied the agenda of protected area planners for over a decade generating alternative views:

It does not seem to us essential to attempt to force the Western Samoan National Parks and Reserve system into the western mould, where all such sites are Government-owned. While there are distinct advantages from the tourism viewpoint in retaining the term "National Park", it is immaterial from the viewpoint of either the ecosystem or of the visitor who it is that actually "owns" the area (Darby 1988: 52-53).

During this absence of practical action the WCS (International Union for the Conservation of Nature and Natural Resources 1980) and the Brundtland Report (World Commission on Environment and Development 1987) contributed to an ideological shift in conservation approaches. So when SNF approached Tafua with an innovative strategy of indigenous control, the concept of protected areas had evolved to include socio-economic criteria.

Biological criteria were nevertheless the dominant basis for conservation in the initial stages of the Tafua Peninsula Rainforest Preserve. The school constructed as part of the agreement, whilst of socio-economic benefit to the village, was not closely linked to the conservation of the forest per se. In other words development was not readily identifiable as attached to conservation. Permitted activities within the forest preserve do, however, conceal this initial distinction
between conservation and development. Ongoing projects within the preserve such as ecotourism and agricultural development place further emphasis on socio-economic criteria.

While developing a respect for the local socio-economic situation, the Tafua project largely overlooked certain cultural aspects of the local population. The informal introduction of O Le Siosiomaga into the project and attempts by SNF to "change certain 'objectionable' aspects of Samoan culture, such as gender discrepancies" (Cox and Elmqvist 1993: 10) indicate a degree of cultural ignorance. A request by O Le Siosiomaga that there be no 'ava ceremony at a meeting between SNF representatives and Tafua village is a classic example of bypassing the culture. Such cultural interference clashed with the concept of indigenous control and undermined flaxroots conservation. The open approach of the conservation agreement has, however, enabled the protected area project to evolve to meet changing circumstances within both the village, and SNF as the donor. This is evident in the recent village initiated agreement between Fa'asao Savai'i and SNF.

The next step towards flaxroots conservation is consequently to include local cultures within the design of protected areas. Does the A'opo-Letui-Sasina project achieve this? The ecological and socio-economic validity of the ICDP project were established through village level surveys. These two criteria are equally articulated as motivational forces in this project. Cultural aspirations relate to how the project respects, uses and promotes local customs and knowledge.

At the theoretical level the ICDP approach recognises that efforts to "conserve biological diversity will not succeed in the long term unless local people perceive the efforts as serving their economic and cultural interests" (Brown and Wyckoff-Baird 1992). Although both Samoan ICDPs are centrally administered, the collaborative approach involved in implementing strategies allows for locally designed initiatives. Both the ecological survey and the socio-economic feasibility study that established the basis for the project, have employed local knowledge and been conducted with regard to local custom. For example in ascertaining the uses and local names of forest plants the knowledge of a blind
and aging Sasina matai was employed. Village protocol was followed in all formal meetings held within the villages with a tulafale accompanying the government representatives. These practices help to reinforce and affirm the uniqueness of the local culture rather than undermine it through ignoring or questioning it.

Fa'asao Savai'i acts as a valuable cultural bridge between the villages and the official national or international agencies. The national and regional implementors of the two Samoan ICDPs, DEC and SPREP, are either dominated by palagis or 30-40 year old Samoans who have returned from overseas to head these environmental organisations. Having forgone a traditional village life and education these Samoans have returned to Apia where the culture is more complementary to the western culture in which they have resided for a considerable period of their life. Consequently the conservation agenda that they pursue may be as foreign as any palagis (this view is supported by Park 1994: pers. comm., and Bairns 1984: 358). Fa'asao Savai'i, which is dominated by people who feel comfortable in both cultures, therefore, serves a vital link in translating perceptions from one culture to the other.

The establishment of Village Conservation Committees is appropriate in building the village level capacity for conservation area management as well as general resource management. The sophistication of modern resource management has separated villages from decision-making. If Conservation Committees are sufficiently empowered then the village will retain a sense of ownership of the ICDP. While Conservation Committees are foreign to Samoan villages they can build on existing village structures such as village Women's Committees which have been accommodated into fa'a Samoa. Village-led organisations enhance grassroots conservation.

Establishing protected areas in Samoa has become dependent far less on promoting the biological values of identified areas than it is on meeting the socio-economic needs and cultural aspirations of the local people. Forest protection has thus become a component of broader development issues rather than the central motivating force behind such projects. To what extent does this shift to ICDPs promote sustainable development?
From Practice to Perception

Each protected area case study has been analysed in respect to changes brought about at three levels of behaviour: operating, policy and cognitive. In order to progress towards sustainable development, Sesega (1990) places changes at the cognitive level as paramount, as this will invariably demand changes at the other two levels. Cognitive level changes will demand new policies which will guide new actions and practices at the operational level. This is presented in Figure 8.1 as an extension of Figure 1.2.

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<tr>
<td>Operating Level</td>
<td>actions, practices</td>
</tr>
</tbody>
</table>

Figure 8.1: Levels of Changes Required to Shift to a Sustainable Path of Development
Source: Sesega (1990)

In support of this view, O'Riordan (1976: 209) recognises that all cultures have a duality of thought and action (cognition and operation) towards nature. Attitudes operate somewhere between stimulus and response and to a large part determine practical behaviour: "attitudinal dispositions were the dominant force in guiding behaviour . . . if attitudes are measured carefully, likely behavioural acts can be speculated upon with some degree of assurance" (O'Riordan 1976: 209). The paradox of this process is that changes in practice will infer a new set of attitudes and perceptions. In other words attitudes respond to observations of practical behaviour. However it appears that people's minds often do not observe or react to practical behaviour. For example, a ban imposed on burning coal to prevent air pollution alters practical behaviour but may not necessarily lead to a greater concern for the environment at the cognitive level. Therefore cognitive behaviour stimulates our operational behaviour more strongly than it responds to it.
Applying this theoretical basis to the three conservation projects gives an indication of their potential for long-term sustainability. The success of these endeavours remains dependent, ultimately, on changes in actions and practices at the level of individuals. But as O'Riordan and others suggest, this is itself dependent on people understanding the value of conservation, perceiving it in their own terms, and developing attitudes that complement it. The changes at each level have already been described. The task now is to identify the hierarchy of initiation of the three levels for each project. This will also establish the level at which international conservation aid enters the system and thus its effectiveness can be gauged.

The initial focus of change in the national park approach was the policy level. The National Parks and Reserves Act 1974 established the legislative arrangements to govern the relationship between environment and society. Changes at the operating level followed as O Le Pupu-Pu'e National Park set these political changes into concrete. Actions and practices of local people were regulated with the arrival of the national park. The rapid establishment of the park, to serve as an example of the protected area concept, failed to promote change at the cognitive level. Attitudes, values and perceptions have been largely left to respond to change at the other two levels. As the village surveys indicate, this change in attitudes is taking considerable time. As a result the state is having to enforce the political and operating changes through defending the park boundaries. This will continue as long as the local community remains alienated from the concepts manifest in the park.

The hierarchy of the levels of change ascribed to the national park are illustrated in Figure 8.2(a). This shows a classic top-down approach to conservation with political change initiating operational change, and these levels being enforced while cognition is left to adjust to the new situation. Donor activities focus at the operating level in setting up the park itself. This represents the classical preference of donors to influence the visible aspects of projects.

The second case study, Tafua Rainforest Preserve, proceeded on a similar course. The project was initiated simultaneously by changes at the policy and operating levels. The agreement immediately stipulated the activities permitted
in the forest and provided for construction of a school building. Cognition was again largely neglected. The benefits of the practical projects to the village has led to recognition of the value of the agreement. However because these projects have not been closely linked to the conservation of the forest, the operating changes have not led to greater cognition of conservation values. Actions and practices that can be more readily linked to forest protection, such as ecotourism, have until recently been neglected. While the immediacy of the practical benefits offers short-term solutions to forest protection, the benefits of the agreement in conservation terms is not well articulated. Therefore long-term sustainability of the resource is still dependent on a shift in many villagers' attitudes.

Figure 8.2(b) presents this situation. Once again aid has focused on the high-profile visible projects at the operational level as well as management procedures at the policy level. A predominance of activities at the policy level has stimulated some changes in attitude at the cognitive level. This has been a reactive rather than pro-active change. The project has failed to capitalise on the values articulated in the negotiations to the agreement that were analogous to conservation values.

In the ICDP case study, the approach resembles that presented in Figure 8.1. Cognitive change is being pursued first, as a motivation for future policy and operating change. This is due both to a policy of motivating conservation...
through recognition of conservation values, and the reality that the project does not have the finances to fund large-scale operational projects. Cognitive change is proceeding partly through direct educational programmes, but largely as a spin-off from the village level attempts to initiate policy change. As Figure 8.2(c) shows assistance is being directed at this cognitive level. Policy and operating changes are expected to adjust accordingly once the project is taken on by the villages. This focus on the educational level with project policy and operations following, is compatible to a flaxroots approach to conservation.

However, is an improved understanding and appreciation of biodiversity values enough in itself to change human actions in favour of conservation and sustainable development? The answer appears to be negative:

Improved awareness and appreciation of biodiversity conservation values is a necessary but insufficient condition for achieving the protection of conservation areas. The second necessary condition is the provision of real tangible incentives (Sesega 1993: 6).

Field research for this thesis confirms this view. Other incentives, in the form of real tangible benefits, are an absolute necessity to support abstract long-term benefits perceived at the cognitive level. Sesega (1990: 82) claims that attitudes change when a system is perceived to be under threat. However when this perception is not necessarily obvious, as the Park et al. (1992) lowland survey concluded for the villages of A'opo-Letui-Sasina, direct benefits at the operating level are needed to motivate cognitive change. This should mitigate the view that "conservation had good stories but was short on practical demonstrations of earning cash" that Lees and Evans (1993: 1) encountered in the Solomon Islands.

The shift in focus from practice to perception has contributed to a move towards flaxroots conservation. Under the national park approach cognition could only be motivated through promoting biological criteria. Motivation under the ICDP approach involves local people perceiving the biological, socio-economic and cultural benefits of conservation projects. Thus the realm of cognition has expanded. International assistance could satisfy biological criteria fairly easily under the national park approach as it simply involved biological expertise. However under the ICDP approach assistance must also incorporate the socio-economic and cultural interests of the local people. The shift to focus at the
cognitive level complements this inclusion of 'people criteria' into conservation. In effect aid has therefore moved from projects to people. Flaxroots considerations have profited from this.

8.2 PACIFIC ISLANDS CONTEXT

The context of conservation in the Pacific islands presents distinct characteristics. Firstly forests are not protected on a primeval basis, as they are in Aotearoa. All forests have a used feel to them which cannot be ignored: "there exists no case of forest in the Pacific islands that is not affected by humans" (Clarke 1994: pers. comm.). The second distinguishing aspect of conservation areas in the Pacific is that as local people generally have not been displaced from their land, there is no case for protected areas reinforcing the rights of indigenous landowners. This is contrary to many protected areas in Australia, Canada, and parts of Africa which formalise indigenous land rights. Similarities across the Pacific islands have led to many joint strategies to promote conservation, particularly at the regional and global level through organisations such as SPREP.

Regional conferences on protected areas have been staged approximately every four years since 1975. The terminology used in the titles of these conferences reflects the shift in thinking. In 1989 the conference changed from National Parks and Reserves Conference to Conference on Nature Conservation and Protected Areas. So the dependence of people on the environment has been incorporated into regional thinking. The theme of the 1993 conference supports this new approach: Community Involvement in Conserving Biodiversity in the South Pacific Region. A regional convention, the Convention on the Conservation of Nature in the South Pacific (the Apia Convention), provides a legal framework for regional approaches to conservation. The Apia Convention drew on the Stockholm Conference and is based on the classical 'protection' model of conservation. It came into force in 1990 14 years after its negotiation.

The Pacific island countries made a significant contribution to the global UNCED Earth Summit in 1992. Indeed the Summit promoted greater interest in the islands of the South Pacific than it did in larger South Pacific nations such as
Australia and New Zealand (Clarke 1994: pers. comm.). The joint Pacific islands report *The Pacific Way* (South Pacific Regional Environment Programme 1992a) was effective in gaining recognition of the special needs of small islands. A chapter was inserted into the conference document (United Nations Conference on Environment and Development 1993) on the special case of small islands. This recognition led directly to the *Global Conference on Sustainable Development of Small Island Developing States* held in Barbados in June 1994.

The SPBCP is another regional strategy initiating from the Earth Summit under the *Convention for the Conservation of Biological Diversity*. This is a more than US$15 million programme being executed by SPREP. Nine conservation/development projects are now proceeding under this strategy, including the Sataoa-Sa'anapu project in Western Samoa.

It is debatable whether these regional strategies and initiatives are pro-active or reactive to the evolving global conservation concept. The conferences have largely focused on fairly abstract environmental problems. For instance even the Barbados Conference, which was specifically designed for small island states, focused on biodiversity, climate change, sea level rise and hazardous waste disposal. These subjects are commonly articulated at the global/western level, and whilst of importance to Pacific islands, they are well removed from the immediate environmental problems that Pacific islanders face. Little concern is given to subjects such as the "constructive occupation of the land" which should be included in a more pro-active strategy for sustainable development in Pacific islands (Clarke 1994: pers. comm.). So currently conservation strategies in the Pacific islands are predominantly reactive to the global agenda.

8.3 SUMMARY

Conservation will remain a top-down process until local people embrace it. The move away from national parks, with their implication of human exclusion, towards integrated multiple-use categories of protected areas, renders the conservation concept more attractive to local people. Rather than seeing local people and customary land ownership as a 'problem' for establishing protected areas, strategies are now using the 'sense of place' of local people to secure commitment to protected areas. The most immediate and difficult issues relate to
establishing an understanding of the conservation concept and turning this into changed practical behaviour. Understanding is a necessary but insufficient precondition. Practical demonstrations of the benefits of conservation (such as tourism projects which provide alternative income sources) are also necessary, particularly if existing extraction and production activities are affected.

In Western Samoa local people have become included in conservation strategies. Yet flaxroots involvement is still largely restricted to implementing strategies rather than determining them. The capacity of villagers to look beyond the short-term is restricted by the reality of their socio-economic condition. Therefore the ideal of complete flaxroots conservation strategies has to be matched by the reality of the local context.
Chapter Nine

From Conserving Biodiversity to Saving the Forests

This thesis illustrates a strong relationship between the rhetoric of concepts developed in the west and the transfer of these to the reality of conservation practice in Western Samoa. In effect this represents a shift from the idealism of 'biodiversity conservation' to the reality of 'saving the forests'. The basic relationship is that concepts of conservation evolve in developed countries, are adopted by aid agencies, and then transplanted, in practice anyway, in less developed countries.

Protected areas, as essentially a symbol of western environmental technology, were transplanted in Western Samoa without simultaneously transplanting the ideologies that accompanied them. Schumacher (1979: 41) points out the mistakes in assuming technology is ideologically neutral. The technology has now adjusted to an intermediate technology. Symbolically speaking Schumacher (1979: 41) states this technology is somewhere "between the hoe and the tractor". In relation to conservation technology it lies between the national park and the industrial park. The concepts that accompany this new technology are also being more readily transplanted. As with many abstract concepts this translation is inherently slow and problematic. This suggests that there still exists a gulf between the motivation for conservation pursued at the global level, and conservation practice with its concern for the local context.

Conservation as a Basis for Sustainable Development

The evolving relationship between environment and development was presented in Chapter Two. The adoption of ecological, socio-economic and finally cultural criteria into the three case studies illustrates how conservation strategies may contribute towards sustainable development. However, does conservation actually aid sustainable development, and will protected areas ever be more than 'islands in a sea of development'?
There are inherent contradictions in the overall evolving strategy of using development as a means of achieving conservation objectives. The end is not development, and is possibly not conservation either. The constant balancing of objectives and trade-offs presents a compromise solution for both the environment and development goals. Is the environmental compromise ecologically sustainable, and is the developmental compromise socially sustainable? The development/positive incentive components are balanced by conservation/regulatory components of the projects. The developmentalist ethos consequently remains as the motivating force for local people with conservation added as a proviso for sustainability or maintenance. The national park approach (Chapter Five) kept environment separate from development yet its long-term conservation objectives are under threat as the project is not entirely socially sustainable with encroachments common. The move towards an integrated conservation and development approach tends to favour socio-economic criteria of local people over the ecological criteria of the protected area itself. So this approach is likely to be at least socially sustainable but may again fail in achieving ecological sustainability.

The intermediate technology offers something in the very wide spectrum between clearfelling and total protection of Samoa's forest. The 'people first' policy in combination with a strong development imperative may see the balance lie somewhere near the clearfelling end of this spectrum. While placing people before the environment may be admirable and socially sustainable in the immediate context, long-term sustainability is under threat. Perhaps there is some sense in placing ecological criteria before human criteria as the environment is the base line on which humans exist. Possibly the only solution to this dilemma lies in the shift to incorporate cultural systems into conservation and development strategies. As Overton (1993) argues, sustainability will only be achieved with a fundamental shift towards a cultural reappraisal away from the developmentalist ethos. Encouragingly, the Samoan culture is still strong in non-economic spheres and this may permit such a shift to occur.
Conservation Aid as a Window of Opportunity

There exists an apparent international willingness to pay for conservation. 'Environment' is one of the "new sacred texts of development" (Crocombe 1992: 180). It was identified as a problem and has become a specific strategy and target of development aid. There are large amounts of money for conservation in the Pacific which Butler (1994: pers. comm.) states are not really based on an analysis of the problem. A lot of aid is based on an obligation that big nations feel they owe small ones, or on what big nations feel they can get away with (Butler 1994: pers. comm.). Consequently another 'priority' issue is likely to take over in time from biodiversity conservation as a favoured recipient of donor funds. Farago (1993: 17) talks of a short "window of opportunity" for conservation projects while funding is available.

The process of aid includes the concepts which accompany capital transfers. These concepts evolve over considerable time in the west and are then rapidly introduced into recipient countries through aid. Thus the conservation projects underway in Western Samoa are the product of an evolving western concept, even though the new concepts are often not yet manifest in protected areas in donor countries themselves. If countries like Western Samoa were in a vacuum then this process might work. But Samoa has a historical, social, cultural, economic and political context that aid has largely ignored. International aid is consequently generally geared to sustainable development at the global scale. The applicability at the micro-scale will be measured in the success of the A'opō-Letui-Sasina project.

In Western Samoa simple subsistence is no longer an option under the present value system. The level of well-being achievable without outside contact and assistance is unlikely to reach socially or politically acceptable levels if resources are to be used sustainably. Therefore the continuance of aid programmes are necessary to offer an incentive to adopt a sustainable development approach. Once again this is assuming the present developmentalist ethos continues.
Modern Conservation and Local People: Motivation and Scale

Motivation for conservation and the geographical scale of the concept and practice of conservation have emerged as major themes of this research. Modern conservation is global in its motivations and assertions (see for example Dwyer 1994). The language of 'biodiversity', 'sustainable development', and 'ecosystems', hides any local context: "[modern conservation] simplifies complex and confusing situations by disembedding resource conflicts from any particular local or political context" (Sachs 1991: 253). The ethic of modern conservation goes as far as assuming all humans are equal. Dwyer (1994: 96) states that this "legitimizes the anonymous status accorded people as conservationists pursue their causes". The reality is that all humans are not equal, and the conservation agenda, therefore, impacts upon the lives of people who are placed in different circumstances. Some of these people may be reliant upon the land and species that are targeted by conservationists while others, simply, may not share the conservationist ethic.

The needs of local people differ from the objectives of modern conservationists. Concern for people is locally motivated. Often these concerns are so locally specific that they do not complement the global concerns of modern conservation. For instance, local knowledge which can be so valuable at the local level, is often only relevant in the local context and may contribute little to the broader conservation context. However, while the ideal of modern conservation is global, the practice is local. So it is at the local level in the practical context, that local people and modern conservation interact.

The interaction of global conservation issues and local people in Western Samoa has resulted in considerable conflict. The national park approach (Chapter Five) has not readily interacted with local people so the conflict is slight but ongoing. The Tafua project (Chapter Six) however, brought the local culture face-to-face with a modern conservation organisation as the motivations of each group clashed. The conservation organisation was motivated by biodiversity conservation while the villagers were motivated largely by their immediate needs. Any ecological motivation expressed by villagers was based on environmental
perceptions that bear little resemblance to those of modern conservation. The A'opo-Sasina-Letui project moves towards a new approach of concentrating on what the local context has to offer rather than what it lacks. For example, the wealth of the local knowledge base is being utilised in a way that complements modern conservation.

**Conclusion**

Knowledge of conservation strategies has been restricted by a failure to acknowledge the local context. This thesis adds to an understanding of conservation strategies by placing the reality of the local context alongside the global rhetoric of conservation. It provides an analysis of past and present projects in a local context. This is important in assessing the progress towards operationalising sustainable development at the local level. Project evaluations are too often either neglected or like project implementations, adopt a top-down approach. The real value of this research is that it resembles a bottom-up evaluation.

The case studies illustrate how conservation strategies are contributing to sustainable development through incorporating socio-economic development criteria into their design. The next step is the need for a cultural-specific definition of sustainable development. In the past both development and conservation projects have assumed cultural homogeneity. The problems of this assumption are evident in the first two case studies. The final case study argues that while cultural aspirations must be fulfilled, romanticism about local cultures must be avoided. The reality of cultural aspirations includes a desire for modernisation. This desire cannot be ignored. At the same time the exposure of villages to global forces such as conservation, has increased an awareness of the unique value of the local. Local knowledge serves the best example of this revaluation.

Future conservation initiatives lie with Samoan children. Spiritual or customary practices that were analogous to conservation purposes have largely been lost. When conservation is articulated amongst Samoans it is usually through western reasoning, whether it be for tourism purposes or ecological reasons. It is
encouraging that the knowledge of school children includes the value of conservation. Yet the relevance of some of this knowledge still reflects Samoa's past relationships which ignored the local context. For instance, school children would proudly show me their school geography books and explain the diagrams illustrating the three systems of operation in a Taranaki dairy milking shed, or the cropping systems in Monsoon Asia. The local context of Western Samoa must reassert itself. In this, it is encouraging that much of the Samoan culture strongly questions foreign introductions.

The role of western conservation organisations in village based projects is in need of re-evaluation. This research has shown that the conservation organisations operate from an ethical basis different from that of the village, which has contributed to the problems observed. Reti (1994: pers. comm.) believes that there is "not one protected area in the twenty-two Pacific islands that is well managed, financed, or sustainable". Thus there is a clear need for further research related to conservation assistance to Pacific islands.

Attempts at creating an ecologically valid and culturally compatible protected area system are driven by rhetoric at the global level. There are fundamental problems with this rhetoric related to the contradictions in combining environment with development, and the motivations for giving and receiving aid. The concepts which have led to this rhetoric are based in realism that overlooks the reality at the local level. A solution to this problem of scale would be to remove the global context and leave conservation initiatives to the local Samoan level. Yet the reality at the local level indicates a need for the global rhetoric and the tangible benefits that accompany conservation aid projects. International conservation assistance has become more responsive to local contexts. Yet this requires an increase in the capacity of Samoan people to respond pro-actively to such assistance if it is to save Samoa's forests.
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Fa'afetai lava finally to the other students in the Department that have contributed to some frantic but enjoyable times.

Fa Soifua.
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## Personal Communications

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<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Aiono, F.; and Tagaloa, P.</td>
<td>University Professor, Member of Parliament, National University of Samoa, Apia.</td>
</tr>
<tr>
<td>Butler, D.</td>
<td>Biodiversity Advisor, Division of Environment and Conservation, Apia.</td>
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<tr>
<td>Clarke, B.</td>
<td>Visiting Researcher, University of Canterbury, Christchurch.</td>
</tr>
<tr>
<td>Crichton, S.</td>
<td>Office Manager, O Le Siosiomaga Society, Apia.</td>
</tr>
<tr>
<td>Dobbie, B.</td>
<td>New Zealand High Commission, Apia.</td>
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<tr>
<td>Elmqvist, T.</td>
<td>Plant Ecologist, University of Umea, Sweden.</td>
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<tr>
<td>Eteuati, K.</td>
<td>Secretary to the Government, Apia.</td>
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<tr>
<td>Fairbairn-Dunlop, P.</td>
<td>Lecturer, University of the South Pacific, Apia.</td>
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<tr>
<td>Jackson, M.</td>
<td>President, Pa'asao Savai'i, Salelologa.</td>
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<tr>
<td>Lees, A.</td>
<td>Associate Director, Maruia Society, Auckland.</td>
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<td>Maiava, L.</td>
<td>Acting Director, O Le Siosiomaga Society, Apia.</td>
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<td>Park, G.</td>
<td>Landscape Ecologist, Department of Conservation, Wellington.</td>
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<td>Petaia, P.</td>
<td>Research Officer, Lands and Titles Court, Apia.</td>
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<td>Poai, K.</td>
<td>National Parks Officer, Togitogiga.</td>
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<td>Reti, I.</td>
<td>Project Manager, South Pacific Biodiversity Conservation Programme, South Pacific Regional Environment Programme, Apia.</td>
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<td>Sesega, S.</td>
<td>Principal Environment Officer, Division of Environment and Conservation, Apia.</td>
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<td>Taufa'asipasipasipasi, A.; and Taufa'asipasipasi, U.</td>
<td>Vice-President, Pa'asao Savai'i, and Tulafale, Tafua.</td>
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<tr>
<td>Ward, G.</td>
<td>Professor of Human Geography, Australian National University.</td>
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<tr>
<td>Weaver, S.</td>
<td>PhD Student, University of Canterbury.</td>
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<tr>
<td>Westman, P.</td>
<td>International Secretary, Swedish Society for Nature Conservation.</td>
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</table>
Appendices

Appendix One: Standard Structure of Village Questionnaire

Aiga Name: Number of aiga members:

1. How long have you lived in this village?
   a] have you lived somewhere else?
   b] have you lived in Apia or overseas?
   c} how long did you spend there?

2. Where abouts are your lands and plantations?

3. Who holds the customary title to your lands?
   a] is the land held in the title of the immediate aiga or a principal aiga title?
   b] is the land used by the immediate aiga or by the extended aiga?

4. In what ways have you or your aiga been affected by the establishment of the protected forest?
   a] changed the quantity or quality of your plantation lands?
   b] displaced from land?
   c] restricted from a fuel supply?
   d] are you restricted from any other activities?
   e] have you received any economic gains such as employment wages or financial compensation?
   f] have any new services been provided? (for example school or library)
   g] has it affected social activities?
   h] do you notice more contact with visitors?

5. Overall do you think these changes have been for the better or worse?

6. Was/is the aiga involved with any planning or management of the protected area?

7. Have there been any unexpected changes?

8. Do you know why the area was or is to be protected?
   a] what do you think is the main reason for protecting it?

9. Do you use the protected area now?
   a] what for? (for example gathering food, wood, medicinal plants)

10. What is your age and occupation and the other members of your aiga?
### Appendix Two: Alternatives for Management and Development of Natural and Cultural Resources

#### Alternative Management Categories (IUCN)

<table>
<thead>
<tr>
<th>Conservation and Development Objectives</th>
<th>Scientific Reserve</th>
<th>National Park</th>
<th>National Monument</th>
<th>Natural Sanctuary</th>
<th>Protected Wildlife Reserve</th>
<th>Multiple Use Resource</th>
<th>Protected Anthropological Area</th>
<th>Protected Area for Local Use</th>
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<tbody>
<tr>
<td>Maintain sample ecosystems in natural state</td>
<td>☑</td>
<td>☑</td>
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<td>☑</td>
<td>☑</td>
<td>☑</td>
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<td>Maintain ecological diversity and environmental regulation</td>
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<td>Conserve genetic resources</td>
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<td>Provide education, research and environmental monitoring</td>
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<td>☑</td>
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<td>Conserve watershed production</td>
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<td>Control erosion and protect downstream investments</td>
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<td>Provide sustenance and/or sport hunting and fishing</td>
<td>☑</td>
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<td>Provide for recreation and tourism</td>
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<td>Produce timber and forage on sustained yield basis</td>
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<td>Protect important cultural, historic and archeologic sites</td>
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<td>Protect scenic resources and green areas</td>
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<tr>
<td>Maintain flexibility through multipurpose management</td>
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<td>Support rural development through rational use of marginal lands and provide stable employment opportunities</td>
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</table>

**KEY:** ☑ Primary Objectives ☑ Secondary Objectives ☑ Lessor Objectives ☑ Not Important or Applicable

After: West and Brechin (1991: 8-9)