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TRADITIONAL RESOURCE MANAGEMENT IN THE MELANESIAN SOUTH PACIFIC: A DEVELOPMENT DILEMMA

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16 Traditional Resource Management in the Melanesian South Pacific: A Development Dilemma

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Summary

Traditional natural-resource management systems of the indigenous communities of the Pacific islands, based on communal-property concepts, continue to function in the face of many changes in the circumstances in which they operate. All have been weakened by changes accompanying economic development – yet they have adapted, and persist.

Independent Pacific island governments accept that these systems, being expressions of social structure itself, are basic to the continued welfare of their societies. At the same time these governments are proceeding to implement forms of economic development which are in conflict with these traditional systems. This poses a development dilemma which is crucial for the future of the people of the South Pacific islands. To what extent can the traditional systems accommodate further change? Will serious efforts be made to adjust approaches to economic development so as to ease those disruptions to traditional resource-management systems which are eroding Pacific island societies themselves?

With an emphasis on the resource-rich Melanesian islands of the Pacific island region, practical examples of the development dilemma in the areas of forestry and fisheries are presented. Suggestions are made as to how with more patience and better understanding, agents of development might yet give practical meaning to official policies of support for traditional systems of resource management. Melanesia still has a chance, if excessive population growth rates can be curbed.

Introduction

Indigenous systems for the administration and allocation of land and sea resources have long prevailed in the Pacific islands region (Figure 16.1). These are not strictly systems of property, in the Western sense, or of territory, though involving elements of both. They are integral components

of Pacific Island societies, and are very complex.

For these societies, land above water and land which is covered by freshwater or seawater conceptually is one and undivided, though with some form of seaward limit – often the outer edge of the outermost coral reef. Further, there is a strong sense of close interdependence between an individual, his or her descent group, and the land with which that group is traditionally associated.

It is difficult for persons of Western cultures to understand this close identification of Pacific islanders with their resources. Land and reefs are not viewed as commodities to be sold, or exchanged – although certain use rights might be granted by resource 'custodians', 'guardians', or 'owners'. The word 'owner', though widely used, is misleading since it indicates a possessive and dominating relationship, rather than the sense of an individual having an intimate association with land, reef, and all that grows upon them. (See Chapter 5 for an analogous case.)

In Fiji this concept is embraced by the term *vanua* (Ravuvu, 1983). *Vanua* has interrelated physical, social and cultural dimensions. It means the land–water area and its plants, animals, soils and other natural resources; and it refers also to the human occupants of the area, with their traditions, customs, beliefs, values and institutions. As a whole, *vanua* refers to a social unit that is identified with physical territory, in which its roots have been established for many generations – from the time of a founding ancestor.

In Vanuatu

> custom land is not only the site of production but it is the mainstay of a vision of the world. Land is at the heart of the operation of the cultural system . . . Each man must have some place, some land which belongs to him, which is his territory. If he does not control any land, he has no roots, status or power. In the most extreme cases this means he is denied social existence (Bonnemaison, 1984).

The relationship of a Pacific islander to the area with which his or her hereditary social group is associated is more custodial – though economic development stresses are now effecting changes. Formal recognition of traditional land-tenure systems in the administration of land above water is widespread in Pacific Islands countries. In some, such as Cook Islands, Fiji, Niue, it is firmly based on legislation – as, for instance, in Fiji's Native Lands Act, 1905: 'Native lands shall be held by native Fijians according to native custom as evidenced by usage and tradition . . .'

Elsewhere, including Solomon Islands, Vanuatu and Papua New Guinea, it is a matter of policy, with some supportive references in legislation. The provision of formal status for traditional arrangements relating to the submerged land of coastal waters, however, has received relatively little attention.

The colonial experience

The Melanesian nations of Fiji, Papua New Guinea, Solomon Islands and Vanuatu experienced periods of colonial rule by administrators from alien cultures prior to regaining their political independence. Two Melanesian areas still lack that right – West Irian, administered by Indonesia, and New Caledonia, ruled by France.

British colonial administrations tolerated, and sometimes even made special provision for, the continuance of traditional resource-management systems. There was probably little altruism in this; it was largely a device to facilitate indirect rule, a cheaper form of colonialism. Colonial administrators did not always properly understand the true nature of these systems. France (1969), for instance, explains how an inaccurate model of Fijian traditional land administration was imposed in the early part of this century in the course of efforts to rationalize the land-administration system along traditional lines. And the early twentieth century 'wasteland' policy of the British administration of the Solomon Islands – whereby all land deemed to be unoccupied or unused was interpreted as being outside traditional jurisdiction and therefore forfeit to the administration – was a gross misunderstanding of the prevailing traditional system.

On the other hand, Akin (personal communication) has reason to believe that, being aware of the extent to which the British colonial administration was prepared to leave certain matters to traditional jurisdiction, in some cases Solomon Islanders labelled certain non-traditional matters 'custom' so as to restrict colonial influence in their affairs.

Traditional systems under French rule apparently have been afforded little recognition. Even so, the traditional association of New Caledonian Melanesians with their land remains very strong, long after that land had been taken from their jurisdiction and allocated to French settlers. Land loss, and not least the spiritual implications of this deprivation, is at the core of determined efforts by these Melanesians to wrest their land back from French control.

With political independence has come a heightened respect for tradition. This, coupled with the political reality that the electorate of Melanesian nations is made up largely of rural groups closely concerned with the maintenance of traditional resource-use rights, has focused attention on traditional resource-management systems. These rights are seen by agents of economic development as frustrating resource exploitation – as where Murphy (1973), in reference to them called for 'a thorough look at the real extent of the problem'.

This chapter addresses the issue of traditional resource management in the pragmatical context of economic development. 'Tradition' in this sense is not, of course, unchanging. While many features of ancient tradition have changed, however, certain other characteristics of traditional resource-

management systems remain strong – not least being the intensely felt man–land association. The subject of traditional land and marine tenure in Melanesia and elsewhere in the Pacific islands is so complex and varied as to make it impractical to attempt a detailed discourse here. Crocombe (1987) offers the most comprehensive coverage of land tenure in the region. Since marine tenure systems have only recently become a subject of interest outside those groups involved with them there is, as yet, no published report which gives an accurate overall view.

The objective of this chapter is to address, in general terms, a development dilemma relating to resources held under traditional arrangements which is crucial not only for the future of the Melanesian countries which are the focus but for all countries in the South Pacific island region.

A development dilemma

Recognition of Melanesians' traditional means of administering and allocating natural resources may be found in the texts of policy statements by independent governments, or in special provisions in legislation. In some cases specific constitutional provisions are made.

One of Papua New Guinea's 'national goals and directive principles', incorporated in the nation's constitution is: 'Development should take place primarily through the use of Papua New Guinean forms of social, political and economic organisation.'

Vanuatu's Constitution is even more explicit: 'Article 71 – All land in the Republic belongs to the indigenous custom owners and their descendants.' 'Article 72 – The rules of custom shall form the basis of ownership and use of land in the Republic.'

While the constitution of the Solomon Islands provides only a weak reference to traditional rights, some national legislation is written so as to make special provision for tradition, or to exclude communal-property resources from an Act's coverage. The Provincial Government Act, 1981, for instance, quite specifically restricts Provincial powers: 'Nothing in this section shall be construed as affecting traditional rights, privileges and usages in respect of land and fisheries in any parts of the Solomon Islands.'

Fiji, the only Pacific island nation where traditional land and fisheries rights have been systematically investigated and officially recorded, provides for the former through a Native Land Trust Act, 1940, while the latter are dealt with in the Fisheries Act, 1942. Among other things, this Act provides for a native fisheries commission and a register of native customary fishing rights. Under the guise of policy, specific administrative arrangements are also used – as in a procedure agreed by cabinet in 1974 for recompense for loss of traditional fishing rights as a consequence of foreshore development.

Irrespective of the legal and administrative devices of which the above are examples, there is a consistent tendency by agents of resource development to characterize traditional forms of resource administration as 'problems' impeding development. And, for all the rhetoric of official statements, governments are vulnerable to strong economic pressures to exploit natural resources quickly. These pressures are intensified by the efforts of international economic-assistance agencies arguing for increased natural-resource exploitation so that debtor nations can sustain loan repayments.

Shared resource 'ownership' means that a relatively large number of people is likely to be involved in decisions concerning proposals for commercial development. Consensus, in some form, is usually required before a decision on the use of these resources can be reached. Older people generally have more authority and tend to be conservative, even suspicious, in respect of development proposals. This frustrates some younger members of a communal property group – as it does the officials promoting development. Lending institutions seek the security provided by private-property rights and, so as to facilitate the necessary flow of development funds, seek conversion of customary group tenure into some form of freehold.

Traditional resource-management systems, reflecting the societies of their origin, are built on principles of allocation and cooperation within hereditary groups. Originally, they were geared to produce a surplus beyond subsistence needs only to the extent that allowed for a local exchange of goods or for the maintenance of food reserves. The essence of economic development, of course, is the production of a surplus for monetary gain. This new mode of resource use strains the traditional management system and tests its adaptability. It has adapted to encompass the limited development of cash crops such as copra and cocoa. Yet these, grown on a smallholder basis, produce little more than the cash needed for the basic necessities which constitute today's subsistence needs.

Over the years since Pacific island societies made their first tentative moves towards involvement in the cash economies of the world, there have been many changes in indigenous resource-management systems. Their potential for adaptation has been demonstrated, and essential principles in the systems have remained relatively intact. The changed nature and greater scale of economic development now facing the Pacific islands region does, however, place much greater strain on them. Should traditional systems be accommodated? Political decisions to do so have been taken. So, in the face of intense economic pressures and the impact of burgeoning populations, can they adapt and survive? To what extent might government intervention in their evolution be appropriate? The essence of the development dilemma addressed here is the hope of building on tradition, while at the same time subscribing to forms of development which in so many ways appear opposed to that tradition and are, in fact, contributing to its demise.

Change and adaptation

It was during the early part of the nineteenth century that fairly regular trading contacts were established with many of the island communities of the Pacific. Sandalwood, beche-de-mer, and turtleshell became commodities traded for a variety of European articles, not least weapons. Natural resources were managed to produce the necessary surplus, though not without important political and social consequences. A particularly vivid explanation of the consequences of turtleshell trading in the western Solomons is provided by McKinnon (1975) who showed that those islanders with best access to turtling grounds were able to use the axes and rifles taken in the turtleshell trade to strengthen their control and – of social importance at that time – to enhance their spiritual power through the acquisition of greater numbers of human heads, which caused an upsurge in headhunting raids.

Once traders began to consider establishing land bases for their Pacific island operations, a new threat to traditional resource-management systems arose. Traders presumed to 'buy' land which, by definition, could not be 'owned'. Their presentations of goods, accompanied by impressive displays of superior technology, were not infrequently accepted and land was made available for their *use*. It was later, and to some extent continues to be, a surprise to the traditional custodians of the land that these transactions had been interpreted as outright sales, rather than as grants of use rights, a form of lease.

Yet there was sometimes a sinister secondary element to these transactions. Relatively few Melanesian islanders at the time were able to communicate with the foreigners wishing to use their land. Those with some limited ability with the English language or, more commonly, with one of the Pidgin dialects, were able to monopolize communications with the outsiders. McKinnon (1972) explained how this effected important shifts in power and influence in the western Solomons in the late nineteenth century. The effect on traditional resource rights was profound, and its repercussions are still felt. 'Communicators' conducted land transactions with the traders, sometimes on behalf of those who had authority to allocate the land in question, sometimes in spite of them. The traders were often unaware of the social complexities of traditional resource jurisdiction but, in any case, are unlikely to have cared. Europeans assumed that the islanders who carried out the transaction had the traditional right to do so, and his name was written into the associated documentation! In this way he attained a status in respect of that land to which he may not have been entitled, and the land was subsequently identified with his hereditary group. Once aware of this deviation from proper traditional practice those who did have the right to 'speak' for that land would attempt to correct the situation. Yet the powerful, intimidating authority of the European purchaser implicitly provided the man named in the

document with protection. In many cases the mistake was not rectified, even where land so alienated was subsequently returned to traditional jurisdiction. Some of today's disputes in Melanesia over rights to the use of land under customary tenure originated in this way. Descendants of the duped land custodian are still trying to regain their traditional rights.

Following the traders came the planters. They were interested in acquiring tracts of coastal land to plant coconuts so as to produce copra. Much larger areas of land were involved yet, on being asked to allocate land for the purpose of growing this crop – in traditional terms, an application for secondary (usufruct) rights – those representing landholding groups often agreed. The introduction of the plantation mode of land use, however, was to bring far-reaching changes to communal-property resource systems. The coconut is such a long-lived crop, of the order of 100 years, that land planted to it was effectively removed from the pool of land available to a landholding group. In any case, plantation land was regarded by colonial administration as alienated – no longer part of the traditional system.

Today, it is islanders who plant coconuts. Recognizing that this long-term crop effectively ties up the land on which it grows, some individuals have succeeded in gaining control of land under customary tenure through applying for secondary use rights to establish a food garden, and then planting coconuts!

A resource-management system implies the existence of a body of resource knowledge, and the presence of individuals skilled in applying that knowledge. Pacific island societies provided for such roles. From the Lau islands of Fiji, for instance, Thompson (1940) reported on the roles of a 'chief of crops' who, among other things, determined harvest times. A 'master fisherman' had overall control of fishing grounds and organized and supervised fishing activities. The British colonial administration of Fiji, either unaware of the significance of these roles or underestimating their relevance, did not provide for them the official support which it provided for other traditional roles when establishing a Fijian administration. Through neglect, the roles now appear to be extinct, and the effectiveness of Fijian traditional resource-management systems, accordingly, weakened.

These few examples of the varied stresses to which the traditional systems have been subjected since first contact with European influences serve to illustrate two important points. First, that the resource-management systems in operation today have changed since first contact with Western technology; but that, secondly, these systems have demonstrated a capacity to adapt and persist.

Traditional tenure and forest development

A quick and relatively easy source of foreign exchange for the Pacific island countries of Melanesia is provided by logging of their tropical rainforests. The trees involved are large, and felling and extraction involve the use of heavy machinery, some of it tracked. Soil disturbance by this machinery is a serious environmental problem. Forest canopy destruction worsens the overall damage to the soil resource, allowing solar radiation to penetrate and causing soil temperature to rise. Rainfall, no longer intercepted by the forest canopy, falls heavily to the ground, impacting and scouring the flimsy rainforest surface soil.

Those remaining forests which are attractive to loggers are all communal-property resources under traditional jurisdiction. Logging, a crude form of forest development, is a continuing source of controversy. The controversy arises from the environmental disturbance, because of logging's sudden and drastic alteration of the community's resource base, and because of the socially damaging disputes which it generates in areas where the boundaries of group lands have not been clearly determined and marked.

Attempts have been made to establish legislation and procedures which might to some extent recognize reality and accommodate traditional concepts of group resource ownership. Fiji's Native Land Trust Act, 1940, provides a legal basis for forestry activities on customary land. While not ideal, it can be said to have met with reasonable success. This arrangement is still in operation after almost 50 years. Experience with the Solomon Islands' North New Georgia Timber Corporation Act, 1979, indicates that it is unlikely to be used as a model for other areas of the country. This legislation is an attempt to overcome customary landowner-group fears of alienation of their land through logging. The Act makes a distinction between land and trees, vesting timber rights in the corporation while leaving traditional land rights unaffected. This idea is borrowed from Papua New Guinea, where government purchases timber rights from forest-'owning' lineages and then arranged logging – leaving rights to the deforested land with the traditional 'owners'. Legally it may be an attractive concept, but it is inconsistent with the holistic man–land–resources concept of Melanesian societies. It has, however, met with some grudging acceptance, despite its quite serious erosion of tradition.

In a situation where the limits of a particular group's forests are known (perhaps only to a few individuals of the group, and known in terms of a distinctive ridge crest, certain hill-tops, conspicuous boulders, prominent trees and ancient burial sites) but not surveyed, nor even roughly marked on a map – how can the boundaries be established quickly, and without disagreement? There will inevitably be individuals from outside the group who will claim some right, possibly spurious, to determine the allocation of that forest area, and the location of its boundaries. Within the group

recognized as having ownership rights there are likely to be differences of opinion with respect to subdivisions of the group area. Some group members will be ready to approve of logging; others will not. The land of the latter may well be downstream of that of those willing to permit logging. The rights of downstream groups may, then, be at risk from sediment pollution of streams from upstream soil disturbance.

Further, the primary rights (usually by birth) of a landholding group are likely to be restricted, in tradition, by the secondary rights of people entitled to harvest the products of individual trees or of groves of trees on that land. In the matter of logging legislation and procedures, no specific provision is made for secondary rights. Since secondary rights are affected – perhaps even extinguished – by logging, should secondary-rights holders be party to decisions on logging, and should they be entitled to a share of the monetary benefits which arise from it?

A decision to log is momentous. Unwisely, it usually involves all of a landowning group's forest. If only a portion were so allocated, options on the future use of the remaining forest could be kept open for decisions by a different generation facing different circumstances. Logging liquidates a resource which may have served a lineage for many centuries, which harbours all of that line's historical links with its past, and which has traditionally been viewed as a resource borrowed from future generations. For all the official rhetoric about reforestation ('we can replace your forest'), the ecological and sociological truth is that tropical rainforest cannot be replaced. The logging of a landholding group's forests may be the most dramatic development impact they will experience. Its environmental and social consequences can be very debilitating.

Instances are known where landholders have gone to a logged area to resolve some boundary uncertainty. There, they have encountered extensive landscape disturbance by logging machinery: the forest canopy reduced to a fraction of its original cover; the ground surface, once relatively open and of easy access, now blocked by fallen tree debris and presenting an altogether unfamiliar topography; and sacred ancestral sites obscured, where not damaged. Individuals accustomed to positioning themselves, and their land boundaries, by reference to natural tree and boulder landmarks, and sometimes by subtle changes of surface topography, become disoriented. The ensuing uncertainties about boundary location are the direct cause of fresh land disputes. This is but one of the manifestations of the resulting social trauma.

Often, because they lack the required basic mechanical skills, relatively few of the members of a landowning group whose forest is being logged might be employed in the logging. Heavy machinery is usually operated by what are regarded as 'outsiders', even though Solomon Islanders and perhaps of the same language group. While these workers will harbour the usual intense,

protective feeling towards the forests of their own lineages, experience has shown that they are unlikely to be sensitive to the feelings of those on whose land they are operating. As a consequence, bulldozer operators pay little attention to measures which would minimize soil damage and erosion, nor are they concerned that in the course of their work they damage, and sometimes destroy, the archaeological sites which are so important as identifiers of land 'ownership'.

Ideally, large-scale forest utilization should be preceded by measures to identify properly those individuals who have landholding and use rights; to locate, survey and mark their boundaries; to help them fully to understand the implications of decisions to develop their resources – and the implications of not commercially utilizing these resources. Some policy statements and legislation are written with this in mind. The reality is that economic development pressures are acute, and that documenting and formally recognizing traditional rights is a very complex, costly and lengthy matter. Meanwhile, logging continues erratically, the establishment of a proper forestry sector based on sustainable use of a renewable resource is stalled, and the courts which arbitrate on disputes over customary land are overwhelmed by a growing backlog of land-dispute cases.

In the midst of this uncertainty, efforts to establish a 'national forest estate' through pure stand reforestation continue. Yet it is proving extremely difficult for Solomon Islands' forestry division, for instance, to plant trees on land under customary tenure. It seems that the reasons are both traditional and historical. Tradition allows that whoever is permitted to plant is entitled to harvest the resulting produce, no matter on whose land the plant grows. If, therefore, the forestry division is granted permission to plant trees on customary land then that agency is seen to own those trees – irrespective of whether this government intervention is intended merely as a stimulus to landowner involvement, with no intention by the division to claim any right to the crop. History also hinders. There is a history of land having been isolated from customary control in practice, even if not in law, through the planting of long-term tree crops such as coconut. Irrespective of the fact that Solomon Islands have been politically independent since 1978 there remains the continuing fear of a repetition of early twentieth-century colonial-government moves to remove land from customary tenure for copra plantations, and of 1970s efforts to alienate customary land with the specific purpose of gaining access to its timber resources.

It is not, however, necessary to end this observation in pessimism. In Fiji, after similar suspicions frustrated early efforts, it has proved possible for a statutory organization, the Fiji Pine Commission, to establish softwood plantations on land under customary tenure, on the basis of a partnership with communal-property groups. It is noteworthy that the initiative which led to this arrangement came from the landowners themselves.

From the Solomon Islands itself comes an example which, involving natural forest rather than planted, should prove to be an even more useful model. On the basis of traditional jurisdiction over the land and forests of portion of the western Solomons island of Parara, a Rarumana Association of involved lineages was established for the purposes of community development of those resources – under traditional leadership and respecting traditional resource rights, while utilizing new technology and ideas. The first step was to have a portion of the forest logged. Cash from this activity was fed into the initial agricultural development – in areas selected *before logging* on the basis of topography and soil type for specific crops. Special care was taken while logging areas destined for the cocoa crop. A 'carpet' of logs of the smaller, commercially unusable trees was first felled so that tracked log extraction machinery did not churn and compact the fragile soil. The logging was undertaken by a large industrial logging company operating at what was, for it, an unusually small scale of some 20,000 cubic metres per annum. The company, Levers Pacific Timbers Ltd, aware of the antagonism towards industrial logging, was prepared to sacrifice some economies of scale and experiment with an approach to logging on land under traditional tenure along lines determined by the 'landowners' themselves. That company no longer operates in the Solomon Islands and no other logging company has shown any interest in following its lead. Meanwhile the Rarumana Association is kept busy with agricultural operations, a small sawmill fed by timber from the forest areas which were kept outside the logging agreement with Levers, and development of new village infrastructure.

Commercial fisheries and traditional marine tenure

Increasing attention is being paid to traditional South Pacific island marine resource-management systems (Johannes, 1978; Klee, 1980, among others). There is a growing realization of the utility of building modern fisheries administration systems on a base of tradition, and an interest in pursuing this possibility. This is despite the difficulties being experienced with customary land. The task should be easier in marine areas since in most places a lineage group's area is not subdivided for allocation among individuals, as is done for food gardens and plantations.

Traditional marine management systems have become modified over the years in response to changing circumstances and their adaptability is now being further tested by individualistic, commercial forms of inshore-fisheries development. Another consideration is the introduction of industrial fisheries into adjacent coastal waters, beyond the reef, which in most cases are probably not under traditional jurisdiction. Such areas are, however, ecologically linked with the traditionally administered waters. There are high

hopes for the establishment of such industrial operations, but particular care is needed to avoid risks to the primarily subsistence fishery inshore. Bailey's (1986) examination of the widespread trawler/artisanal fisherman conflict of South-East Asia has brought him to reflect on what form of communal-property resource system may once have existed in that region. By placing the prevailing 'endemic conflict in the fisheries sector' of South-East Asia in the context of the probable existence of such systems, he provides a scenario for what could happen throughout the South Pacific island region if there is no government intervention to support and protect effective traditional systems.

Despite the resilience they have displayed there is reason to be concerned about the prospect of traditional marine resource-management systems surviving the various economic development pressures. In many areas, too, the ecological knowledge which is an integral part of such systems is not being transferred to younger generations. Traditional authority is being weakened by a number of factors, significant among these being the exploitative element of the 'development elite'. This elite is produced by formal education which, for all its importance, does, nevertheless, have the consequence of educating Melanesians away from their tradition. There is a tendency for some of the development elite to be more concerned with persuading their rural cousins to open up their resources to large-scale, quick-cash-flow exploitation than with persisting with the often frustrating business of assisting with the development of true community enterprises. On the other hand the development elite also includes individuals of the type which brought success for the Rarumana Association, discussed above.

Fishing is popularly believed to be a mainstay of Pacific island societies. For small island communities it certainly is. Yet for those of the many 'high' islands, having much better soils, terrestrial resources tend to greater importance than those of the sea – even though these communities, too, are likely to have extensive knowledge of the marine environment. It should be pointed out that Polunin (1984) believes that in Papua New Guinea, which mostly comprises land-resource-rich islands, traditional marine tenure systems are poorly developed. This finding, presented somewhat cynically, should be treated with caution.

Planning for much of the inshore-fisheries development undertaken in the island region often does not reflect this part-time interest in marine resources. A project model widely tried is that of artisanal reef fisheries based on modest improvements in fishing craft, new gear, and iced fish storage in insulated boxes – the catch transported by larger vessels to a commercial market. Difficulties are inevitably encountered with supply and technical support for such projects. By default, through inconstant supplies of ice and irregular sailings of transporting vessels, projects conceived as continuing become occasional. For most participating fishermen – at least for that

majority which has traditional rights and access to terrestrial resources – this pattern would not be unacceptable (indeed, perhaps preferred) except for its unpredictability. They need time for other activities, not all of them income-earning. In any case, the harvesting of other resources at times is more attractive than fishing. When the widely fluctuating copra price is high, commercial fishing may hold little attraction. On the other hand, where the copra price remains low for long periods, loan-agency repossession of outboard motors bought during a copra price 'flush' reduces the capacity for commercial fishing.

The phenomenon of 'landlessness' among those technically holding traditional use rights to communal-property systems is spreading, mostly as a consequence of rapid population growth. Virtually all countries of the island region are experiencing, somewhere, sufficient depletion of inshore resources to have made the fear of localized malnutrition very real. Those short of land resources have sometimes been responsible for overfishing their inshore areas and some of these have proceeded to encroach on the traditional fisheries areas of others. The indications are of more trouble ahead.

Some efforts have been made to provide financial returns, or 'resource rents' to those groups which have jurisdiction over marine resources surplus to their present needs and which are of use to outsiders. Tuna baitfish for an industrial pole-and-line tuna fishery in the Solomon Islands, for instance, are harvested by outsiders in areas subject to traditional marine tenure. Resource rents are paid for this harvest, to individuals who represent the groups concerned. There is no fixed formula for the allocation of these rent monies within the group. That is regarded as a matter to be settled 'according to custom'. Custom, in this respect, is very uncertain, subject often to the personal interpretation of the representative, or trustee, for the group. Some follow what are known to be customary procedures of consultation to seek consensus on allocation. In such cases, much of the money is invested in community projects such as schools, piped water supplies and churches. Others regard the rent money as primarily a perequisite of their relatively high status within the group. They personally decide how the money is to be allocated. Under these circumstances, little money is likely to find its way to community projects.

This latter example is, of course, symptomatic of an erosion of the otherwise egalitarian values of Melanesian Solomon Islands societies. In Polynesia, where hereditary chieftanships are the norm (Sahlins, 1958), this behaviour might be regarded as less inconsistent. Indeed in Fiji, which sustains a traditionally chiefly system, rents paid on land leased from customary landowning groups to outsiders through a native land trust board are allocated in such a way that traditional leaders at three levels of administration down to the Fijian equivalent of sub-clan receive a percentage of these rents, while the major portion is distributed among all other members of the group.

Understanding indigenous resource-management systems

There remains a widespread feeling among agents of economic development that traditional systems of land and sea tenure are a hindrance to economic development and that their associated resource-management systems have little contemporary relevance. Nevertheless, there is a growing realization by some that it is better to work towards accommodating these systems rather than displacing them. A smaller, but growing, group recognizes the intrinsic merit of the systems themselves – their social importance, the pragmatic management principles which often underlie them, and the often rich store of ecological knowledge on which management is based. This point of view is reflected in the basic document of the South Pacific Regional Environment Programme (1982) – agreed by all governments of the island region: 'Traditional conservation practices and technology and traditional systems of land and reef tenure adaptable for modern resource management shall be encouraged. Traditional environmental knowledge will be sought and considered when assessing the expected effects of development projects.'

The point has also been expressed at technical meetings; as in these Unesco (1980) recommendations: 'that the possibilities of retaining and reinforcing traditional marine conservation methods or of incorporating their essential elements and philosophies into new management practices to be studied . . . that attempts be made to record traditional knowledge of environmental and fisheries biology and of marine resources . . .'

Yet, though there is now a greater willingness to know, to understand and to document these systems, few appreciate their complexity or the significance of variations between culture groups. There is confusion and misunderstanding among planners, administrators and legislators – even some of those who exercise traditional rights themselves are not altogether clear about the origin and nature of those rights. In such circumstances, there is considerable risk that new policy, administrative arrangements and legislation designed to resolve the development dilemma embracing traditional institutions may be based on half truths and distortions. A superficial, generalized version of the communal-property systems of a Pacific island nation, if written into law, is more likely to provide a new base for socially disruptive disputes rather than the desired accommodation with contemporary development.

Much has been written on traditional land-tenure systems of Pacific island societies and some of these writings have addressed the practical implications which customary land tenure has for contemporary development. For a practical guide, Crocombe (1960) excels. The most comprehensive coverage of the subject is to be found in Crocombe (1987). Legislative and administrative arrangements have been made to accommodate these land-management systems in most of the island regions' countries – with varying success.

Marine tenure systems, however, have received relatively little attention until lately (see, for example, Johannes, 1978; Baines, 1985; Wright, 1985). Some published attempts to explain them reflect the author's inability to comprehend their complexities and nuances. An understanding of Fijian traditional marine tenure, for instance, is not helped by the erroneous basic assumption of Iwakiri (1983) that marine area rights follow land rights in being based on the *mataqali* social unit. Unlike land, contemporary fishing rights in Fiji are based on the higher order social unit of *yavusa*; even, at times, the *vanua* – a grouping of *yavusa*.

The proper identification and definition of the social unit on which primary rights are based is, of course, crucially important. Particular care is needed, also, to clarify various secondary rights and their origins. There is a tendency to talk loosely of rights to fish in a particular area being 'village rights', the implication being that all residents of a particular village have rights to use adjacent communal-property resources. This is too simplistic. A common pattern in coastal Melanesia, for instance, is that, through marriage and adoption, a village is made up of a number of different lineages – as many as ten or more. Primary use rights are inevitably held by only one of those lineages and that lineage alone has the power to allocate use rights in the marine area adjacent to the village. This lineage, then, allocates secondary use rights to others who have been accepted as residents of the village or, sometimes, temporarily, to visitors.

For purposes of harvesting for subsistence needs, there is probably no practical difference between primary and secondary rights. However, only those with primary rights have a say in the allocation of secondary rights. This right to accept or reject is keenly felt. The distinction between the primary and secondary rights of a village community may not be noticed by an outside observer until, say, a commercial fishing venture is proposed. Primary rights holders are likely to assert their status and refuse to accept a project intended to be based on the village community as a whole. Yet they may not make this clear, and fisheries development agents may proceed, unknowingly, to operate through a group with secondary rights. Inevitably, the distinction will be expressed, but probably too late to ensure success for what technically may have been a good development project.

There has been a tendency to underestimate, or even ignore, the role of women in traditional fisheries. Traditionally, men assume the more adventurous fishing roles. Some of these, involving prestige animals such as shark, dugong, porpoise or dolphin and bonito are, or were, associated with 'magic' and mystique. Women largely 'glean' on the reef, in shallow lagoons and on foreshores. The nutritional contribution of these gleanings to community welfare is very considerable. Gleaning success depends on considerable knowledge of the environmental requirements and behaviour of a very wide range of marine foods – fish, algae, seagrasses, crustaceans, molluscs,

cephalopods, annelids and echinoderms. Some of the valuable fisheries knowledge of Pacific island fishermen has been documented (notably by Johannes, 1980, 1981). The rich source of ecological knowledge about the nearshore environment which is held by women remains unrecognized by marine scientists and fisheries managers.

The tradition of marine communal-property systems is dynamic and changing. The extent to which it has changed and, in particular, the extent to which it now includes what were once foreign concepts and practices, varies between and within the island countries. If these marine systems are to be given the recognition and support necessary to sustain them in the new environment of economic development then prompt action is required. It will not be possible to await detailed documentation and analysis of these systems. While such detail should still be pursued, a compromise level of information must meanwhile be accepted.

In the case of the Solomon Islands, Baines (1985) recommends an approach geared to the reporting, not of every nuance of a system, but to what he terms a 'basic fisheries tradition' made up of key elements such as principles of inheritance, nature of and allocation of use rights, boundary concepts, and rules for the distribution of harvest and of other benefits from the use of resources. This concept has since been developed into a manual (Baines, et al, in preparation) to provide practical guidance for those investigators of traditional marine resource-management systems whose task it is to facilitate economic development through them.

Commercialization of the resources of areas subject to traditional fisheries rights need not be socially disruptive if carefully approached. In striving to develop new approaches, based on traditional systems, it is useful to examine experience elsewhere. In this respect, through culturally quite different, the Japanese experience is worth studying. There, traditional fisheries rights are legally vested in fisheries cooperative associations. The origins and practice of this arrangement are explained by Ruddle in Chapter 10.

Guiding the evolution of traditional resource-management systems

Traditional resource-management systems of the South Pacific island region are unlikely to survive in a meaningful form without government support – institutional and legislative. Without such government intervention it appears inevitable that the forces of economic development will overwhelm them. Regarding the marine element of such systems, from an international perspective Christy (1982), while pointing to the need for 'strong legal and institutional protection' of traditional fisheries rights, stated bluntly that 'these have not generally been able to withstand the pressures resulting from a large

increase in the value of access' to the resources concerned.

There is a vast conceptual gulf between traditional institutions and those which presently serve economic development. Pacific island governments are firmly committed to the latter, in 'free-market' forms only mildly tempered by other considerations. Yet these governments continue to proclaim a determination to recognize and support appropriate traditional institutions. In particular, they seek to preserve communal resource rights. Here, then, is the development dilemma, illustrated in this paper by examples from the forestry and fisheries development sector. Can it be resolved?

Most attempts to resolve the differences between the two systems for natural resource use have emphasized alterations to traditional communal-property systems so as to make them more amenable to economic development. The traditional systems have shown a capacity for adaptation and, despite many contraindictions, it could yet be possible to effect a relatively untroubled transition to a form of economic development in which communal rights can be maintained. Little attention, however, has been paid to the idea of modifying approaches to economic development so that some bridging of the gap might be effected from this 'other side'.

It might appear to be a contradiction in terms to speak of 'guiding' the evolution of a system. Nevertheless, this approximates the role which governments would best adopt, rather than attempting to force change and, in particular, the conversion of communal to individual forms of land and marine tenure – the objective of many agents of development.

There needs to be more effort by the various agents of development – agriculture and fisheries extension staff, development planners and, not least, officials of international economic-assistance institutions – to understand better the nature of traditional resource-management systems. They also need to display greater patience with the slow pace which characterizes traditional community decision-making on the allocation of resources for economic development. So long as traditional systems themselves are viewed as 'the problem' there can be little progress towards such understanding. In this respect credit is due to one notable effort, in the name of the World Bank (Goodland, 1982), to address this issue in a more positive manner.

A distinctive new approach to the development of resources under traditional jurisdiction has manifested itself recently in the Solomon Islands. It is particularly threatening to rural communities. The threat arises externally but is given expression through individuals who are members of groups with traditional resource-use rights. These are individuals with greater knowledge than others of their lineage about commercial possibilities for the group's resources. They have access, often through foreign intermediaries, to capital and technology, and they are adept at influencing administrative decisions. They are the manipulative component of the development elite. Indeed, they are the contemporary equivalent of the nineteenth-century opportunists who,

through monopolizing communication with European traders, greatly enhanced their power and wealth at the expense of their own people. Legislative support for traditional resource-management systems could do much to curb this form of exploitation, and, in consequence, give encouragement to the other arm of the development elite – that which seeks to apply its knowledge and understanding to working *with* its kin towards socially and environmentally sustainable forms of development.

Better understanding of these complex systems requires that much more attention be paid to their documentation, interpretation and analysis. This is best done as cooperative research ventures – with scientifically trained investigators and those whose societies are being examined working together – rather than the usual externally inspired research interventions.

Traditional landowning groups, too, have a special educational need. To help them make good decisions on natural-resource allocation and to give them the confidence needed for effective involvement in economic development they must be helped towards a better understanding of development options and consequences. Much of traditional community resistance to development activities arises from fears – a fear of what appears to be the unknown consequences of economic development, and a fear of the history of land alienation through government involvement. Though it is mainly with Melanesian societies in mind that this discussion proceeds, much is relevant for the Pacific island region as a whole.

The adage that 'a little learning is a dangerous thing' is particularly apt in the circumstances discussed here. Any attempt to introduce legislation to formalize customary law, if this is based on only a superficial understanding of the custom in question, could inadvertently produce new opportunities for dispute among those holding traditional rights. Secondary rights, for example, might be overlooked. In consequence, not having the support of formal law, they weaken, and a crucial element of social interrelationships is lost. On the other hand, it could happen that legislation is written so loosely that it becomes possible for manipulative secondary-rights holders to assert primary rights – and sometimes succeed. Though such a ruse would be evident, and disapproved of, in terms of current customary law it might well succeed were legislation to provide an opportunity.

Certain basic principles of traditional resource-management systems need careful examination before decisions are taken to accept them as bases for legislation. Among these is the crucial matter of whether customary rights are to be regarded as rights of use or as rights of ownership. And what is to be done about secondary rights? Fijian legislation for the protection of land and sea areas under customary control does not provide for these. The legislation has been so long in effect (almost 50 years) that secondary rights, not having been given legislative support, appear to have atrophied. Rural Solomon Islanders still have high regard for secondary rights – placing great

importance on the notion that a group with the opportunity to grant these has an obligation to help others and that, in return, that group derives support and security in other ways. On the other hand, there are factors which tend to undermine the concept of secondary rights. First, there is the tendency for the primary group to lose control of portions of its land as those allocated secondary rights move to make permanent their right by planting very long-term crops such as coconut. Then there is the matter of population growth. Already there are areas where primary-right holders are short of land, so cannot fulfil their obligations to others. The current annual population growth rate of 3.5 per cent ensures that this problem will worsen very quickly.

The inheritance principle for primary rights must be clearly decided, with the agreement of each culture group. Where it is strictly patrilineal or matrilineal it may not be particularly difficult to determine which individuals are entitled to primary rights through inheritance. Groups whose custom provides for ambilineal inheritance – through both parents, so offering more potential landholdings – are particularly vulnerable to manipulation and spurious claims.

It will be a lengthy, difficult, and expensive task to conduct the detailed examination which is a necessary prerequisite to legislation. In Fiji, the process of determining land ownership and registering rights was spread over almost 70 years. Few resources were applied to that task, however, and there was not the same urgency as is now faced by the other Melanesian countries – New Caledonia, Papua New Guinea, Solomon Islands and Vanuatu. Unless traditional resource-management systems are given special attention and protection they are likely to succumb to development pressures.

Where the legislation is intended to proceed beyond the provision of general support for a communal-property system and on to codification of the traditional law itself, additional difficulties arise. Not the least of these, as pointed out by Crocombe (1960) is that codification freezes what is essentially a flexible system, able to adjust to population changes and other new circumstances. One approach to this difficulty might be to provide for a review of secondary aspects after perhaps ten years, where circumstances warrant. Legally and administratively this is untidy, but it would be a relatively small cost to pay for the benefit of an opportunity for some 'fine tuning' to ease the difficult transition from tradition to formal law.

Yet much progress can be made towards resolution of the development dilemma through extra-legal devices. Suggestions have been made above regarding the importance of education – both for customary groups and for the 'development agent' group – in ways which will serve also to build trust between these groups. Consultation by government officers with traditional communities is often little more than an exercise in persuasion. Consultative procedures could be reorganized on a partnership basis in which traditional jurisdiction over resources is not just grudgingly recognized but is

acknowledged with respect. In return, with more information provided about resource-development options and their consequences, together with training designed to improve their ability to make decisions and to manage their resources in today's changed circumstances, communal-property-resource holders will be better prepared to join with governments in attaining national development objectives.

Finally, there is the delicate matter of the distribution of resource benefits within a communal-property group. In most countries that has been left to the groups themselves to determine. This might be expected to have been the proper approach, and certainly has the advantage of avoiding paternalism. However, the erosion of traditional leadership and of the relatively egalitarian Melanesian values on which it was based, has caused a shift towards self-interest. Governments could intervene with legislative prescriptions for allocation of financial benefits from the use of communal resources. A reasonably fair distribution of wealth, in the form of a share of communal-property resources, is a fundamental principle of traditional tenure systems.

Should governments fail to reinforce this traditional principle then a characteristic of tomorrow's Melanesian society will be a growing class of dispossessed poor. The traditional systems will have adapted further, but in ways which suit the self-interested manipulators as they exploit the flexibility of these systems to rationalize their position. Only prompt and sensible interventions by governments to guide the evolution of communal-property systems can avert this social catastrophe.

Those island nations which, despite acute development pressures, choose to face the development dilemma and apply the necessary time and resources to working out a development which embraces traditional resource-management systems, still have some chance of achieving sustainable resource development with their cherished communal-property systems intact – if they can overcome current excessive population growth rates.

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