

Submission to:

**Inquiry into Australia's relationship with Papua New Guinea and other Pacific island countries**

**(c) development cooperation relationships with the various states of the region, including the future direction of the overall development cooperation programme.**

**Aid priorities for the Management of Environments and Natural Resources in Pacific Island Countries**

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## PREAMBLE

This submission addresses issues in the degradation of Pacific island environments and the depletion of Pacific island natural resources, and the implications for prioritising Australian cooperation with and assistance to Pacific island countries in environmental and resource management.<sup>1</sup>

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The author was, from October 1998 to May 2001, a senior research fellow at the National Research Institute of Papua New Guinea, Port Moresby. Prior to that he lectured at the Australian National University for 4 years. He has over 20 years of experience in research and as a consultant to Australian and international agencies, including the Asian Development Bank, AusAID and ACIAR.

The submission draws heavily on the draft chapter attached – C. Hunt, forthcoming. “Economic globalisation and Pacific island environments”, in C. Tisdell and R. K. Sen, (eds.), *Economic Globalisation: Social Conflict, Labour and Environmental Issues*, Edward Elgar, Cheltenham, U.K.

## 1. PACIFIC ISLAND ENVIRONMENTS AND RESOURCES

The submission deals in this first section with environments and resources of individual island states. The second section focuses on common environments and resources.

### 1.1 Issues

#### *1.1.1 Forest management and depletion*

Papua New Guinea, the Solomon Islands and Vanuatu all have large natural forest resources and forestry is important economically.

Trade policy has been very influential in determining the level of exports of natural forest resources in the three countries, but has been very different. Government encouragement of logging in the Solomons has led to a rapid depreciation of forest resources; a high government imposed export tax regime in the PNG has led to a lower rate of logging but sustainable forest management has not been implemented; while in Vanuatu the government ban on log exports has failed to prevent the depreciation of valuable hardwood stocks.

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<sup>1</sup> The recommendations contained in this submission are made notwithstanding the fact that other developed countries and multilateral organisations may have similar priorities in the provision of assistance to Pacific island countries.

For more detail of forest policy and its implementation in Papua New Guinea, the Solomon Islands and Vanuatu, see Hunt (2002), attached (“Efficient and Equitable Forest Rent Capture in Three Pacific Island Nations: Opportunities and Impediments in Forest Policy Reform”).

In each of the three countries there has been a flow of imports of forest management services under official development assistance but this has tended to be negated by weak policy implementation by governments.

In other island countries of the Pacific that possess forest resources, such as Fiji, Samoa and Tonga, forest clearing for domestic agriculture has been the main cause of net depreciation of forest resources.

#### *1.1.2 Inshore resources depletion and environmental degradation*

A large proportion of the population in most Pacific island countries – and an overwhelming majority in some – are still in a subsistence economy and reliant on inshore fish stocks (Dalzell, Adams and Polunin, 1995; ESCAP, 2001; Hunt 1997; 1999, cited in Hunt, forthcoming). Tisdell and Fairbairn (1984, cited in Hunt, forthcoming), pointed to the dangers of overexploiting such resources for export, given population growth and the fickleness of export markets. The export of live fish and the aquarium trade are depreciating inshore fish stocks (Richards, 1993; World Bank, 1995, cited in Hunt, forthcoming).

Inshore stocks of fish, an important food source in the Pacific islands, are now more easily depleted because of use of outboard motors and nets replacing traditional methods of fishing (Hunt, 1999, cited in Hunt, forthcoming).

Governments face difficulties in devising effective policies that will limit inshore stock depreciation. More emphasis is now being placed on the devolution of fisheries management to local communities, given the high costs of central administration.

However, terrestrial development in the Pacific may be an even more serious threat to inshore resources (Adams and Dalzell, 1994; SPC, 2001a, cited in Hunt, forthcoming). Agriculture and logging are singled out, in Hunt (forthcoming), attached, as possible damaging export industries in this regard.

#### *1.1.3 Effects of export agriculture*

Exports crops that use imported agrochemical inputs are growing in importance and such growth may have deleterious consequences for both land and water quality depreciation.

#### *1.1.4 Effects of export mining*

Mining in the Pacific is often characterised by technology that allows the economically efficient extraction of minerals from low-grade ores. However, this requires the removal of vast quantities of overburden and the generation of huge quantities of tailings, with consequential effects on natural capital i.e. river and delta depreciation.

The exposure that problems associated with mining in Pacific islands have received has alerted the international community to the danger of failing to address externalities in the planning and execution phases.

#### *1.1.5 Enhancement of urban environments*

The waste disposal habits of households on Pacific islands can lead to the dispersal of solid wastes into the environment with attendant health risks. For example, because of poor waste collection services the burning of garbage containing a high proportion of plastics commonly generates air pollution. Recycling can be effective in intercepting materials that are imported or the result of foreign investment in manufacturing, that have economic value, before they impact the environment – such as some plastics, metals and glass (Hunt, 1998, cited in Hunt, forthcoming, attached). However, markets are non-existent for many types of waste such as newspapers. The 'sanitary landfills' of Pacific island cities and towns that receive unrecycled household and industrial wastes are unlikely to be lined, and the leachates that consequently issue from them are likely to destroy the quality of underground waters, adjacent streams and inshore waters.

Low levels of economic growth have prevented governments from increasing investment in urban infrastructure and environmental regulation. And although official development assistance has been effective in the provision of potable water supplies, the percentage of the population that can access piped water is still low in some countries.

A characteristic of vehicles in the Pacific islands is that they are heavily polluting, compared with vehicles in developed countries. They are commonly of an early vintage, lack pollution control devices and are poorly maintained. However, vehicular air pollution is not a serious problem because of the relatively small size of urban concentrations and the relatively low level of vehicle ownership. A potential health problem in Port Moresby, associated with imported leaded petrol, was headed off when the oil companies phased out lead in 2000.

### *1.1.6 Effects of climate change*

Policies adopted by the rest of the world to slow climate change will not forestall the threat of inundation to low islands and atolls. The median prediction of sea level rise of around half a metre in the next 100 years is certain to put at risk the very existence of atolls and low islands.

The domestic policies of Pacific island countries can be applied at several levels to mitigate the effects of sea level rise – the principal threat resulting from climate change – and can well be integrated with policies governing fishing, agriculture and coastal development. Examples are the prevention of fishing practices that physically damage protecting reefs, limiting runoff from agricultural lands that can chemically damage reefs, and preventing foreshore sand and gravel extraction.

## 1.2 Major finding

### *1.2.1 Weak policy implementation*

A major conclusion of the paper (Hunt, forthcoming) attached, is that while policies are often well developed to deal with depreciation of environments and natural resources, implementation of those policies is often weak. The two major causes of weak policy implementation were found to be poor governance and a lack of resources.

### *1.2.2 Causes of weak implementation of policy*

Government encouragement of logging in the Solomons has led to a rapid depreciation of forest resources; a high government imposed export tax regime in the PNG has led to a lower rate of logging but sustainable forest management has not been implemented; while in Vanuatu the government ban on log exports has failed to prevent the depreciation of valuable hardwood stocks (Hunt, 2002, attached). In each case there has been a flow of imports of forest services under official development assistance but this has tended to be negated by weak policy implementation by governments.

Examples are given in the attached paper (Hunt, forthcoming), that suggest a lack of improvement in the application of environmental policy in the areas of agriculture, mining and forestry. And while increased economic growth among Pacific islands would make more resources available for policy formulation and implementation, this growth may only be possible through further depreciation of natural

capital. While official development assistance may in other cases effectively augment the efforts of island governments, the higher level of policy implementation achieved is often not sustained.

Governments face difficulties in devising effective policies that will limit inshore fish stock depreciation. More emphasis is now being placed on the devolution of fisheries management to local communities, given the high costs of central administration. The Secretariat of the Pacific Commission (SPC) (2001a, cited in Hunt, forthcoming) has published a report that suggests that only one fourth of the staff of national fisheries agencies is spent on coastal management matters, and that in a survey of 31 sites throughout the Pacific only 40% of the villages had been visited by government officials to discuss coastal resource management during the previous ten years.

The import of technology through ODA can be effective in improving water and air quality in the Pacific. For example, advanced reticulated sewage systems can replace septic tanks. Importantly though, the regular and costly maintenance of such systems can easily exceed the financial and technical capacity of local governments.

Municipalities and local governments in the region are characteristically short of funds to provide environmental services but these administrations nevertheless do have recourse to consumption taxes, for example goods and services or value added taxes. And it is appropriate that these taxes fall on the consumer goods that are often sources of pollution (Hunt, 1998, cited in Hunt forthcoming).

Water supplies are often improved through the flow of ODA, for example JICA (the official development arm of the Japanese government) has funded the rehabilitation of the Port Moresby system. Notwithstanding the importance of aid is the emphasis that should be given to the adoption of appropriate water pricing by local authorities. In particular, the introduction of progressive user pays systems can generate income to maintain and develop urban water supplies and at the same to provide an incentive for conservation; Port Moresby and Pohnpei provide examples of such systems (Hunt, 1998, cited in Hunt, forthcoming).

### 1.3 Policy

#### *1.3.1 Cooperation and assistance in governance*

Where governance is clearly the limiting factor in environmental and resource management the outcomes of technical assistance projects through ODA may well be very disappointing. Poor governance can also undermine assistance projects designed to strengthen government departments.

Poor governance is manifestly a major inhibitor to resource management in Papua New Guinea and the Solomon islands. Where

weak central government is the underlying cause of poor environmental and resource policy implementation, as epitomised by forest management in Melanesia, then programmes to strengthen core governance should take priority over technical assistance and departmental strengthening efforts. However, addressing the direction and level of official assistance to core governance is beyond the scope of this submission.

### *1.3.2 Cooperation and assistance in environmental and natural resource management*

Where a genuine lack of government resources is the principal constraint on policy implementation, official development assistance (ODA) in the form of cooperation and assistance in technical and institutional strengthening can be effective. A proviso is that the organisation and infrastructure implemented should be able to be maintained after the flow of ODA has ceased. Areas identified where policy implementation could well be improved by the provision of technical and financial assistance to Pacific islands are:

- i. management of coastal and inshore resources,
- ii. management of oceanic fish stocks in concert with regional management initiatives,
- iii. provision of potable water supplies and management of urban waste,
- iv. mitigation of sea level rise effects.

## 2. PACIFIC COMMON PROPERTY RESOURCES

This second section addresses environments and resources common to all Pacific island countries also draws on Hunt (forthcoming), attached. The common property tuna stocks of the Pacific are by far the most important source of marine resource exports and probably generate the largest flow of receipts from any single source in the Pacific. It constitutes a major or even the main source of government revenues in some small atoll states. Pacific tuna stocks take on global significance given that the yield of tuna, from the Western Central Pacific Ocean (WCPO) in which the Pacific island countries are situated, is the largest of any of the world's oceans.

### 2.1 Issues

#### *2.1.1 Oceanic fisheries exploitation and management*

The world's largest tuna fishery is based on four main species that comprise a valuable common property resource in the Western Central Pacific Ocean (WCPO), in which most Pacific islands are



situated. There is no overall management plan for WCPO tuna in place. The level of exploitation of tuna for export is now judged to be depreciating the stocks of one of these species. The subsidisation by governments of distant water tuna fleets is one factor contributing to increasing fishing effort that should be researched. A challenge now faces the Pacific island countries through regional agencies and conventions to devise methods that will prevent further depreciation of specific tuna stocks and by catch species in the multi-species fishery.

### *2.1.2 Biodiversity*

The depletion of by catch species is also a problem associated with the long line method of fishing for tuna in the WCPO – a type of fishing being promoted in the region by Pacific Community (PC) and the Forum Fisheries Agency (FFA).

## 2. 2 Policy

### *2.2.1 Regional institutions*

Pacific island government policy in the case of oceanic fish stocks is increasingly being tied into regional policy, stemming from international policy. The flow of ODA to Pacific island countries has been influential in enabling their participation in the international and regional meetings that have formulated the conventions aimed at preventing or minimising the depreciation of tuna stocks. Island states have also been recipients of assistance in developing their individual plans for oceanic resource management. More indirect but very important has been the financial support of developed countries for the regional organisations of the Secretariat of the Pacific Community (SPC) and the Forum Fisheries Agency (FFA).

Continuing cooperation with Pacific island countries and other donors is recommended in the provision of technical and managerial expertise and financial assistance with respect to oceanic resources management, to:

- Pacific island governments directly, and
- regional organisations concerned with the development of regional policy and its implementation by Pacific island countries.

Likewise assistance to regional institutions, including the SPC and the South Pacific Regional Environment Programme, that are tackling the many but common threats to islands' vital inshore resources, is recommended.

## ATTACHMENTS

C. Hunt, 2002. "Efficient and Equitable Forest Rent Capture in Three Pacific Island Nations: Opportunities and Impediments in Forest Policy Reform", *Small Scale Forestry Economics, Management and Policy*, 1(1), pp.1-15. pdf

C. Hunt, forthcoming. "Economic globalisation and Pacific island environments", in C. Tisdell and R. K. Sen, (eds.), *Economic Globalisation: Social Conflict, Labour and Environmental Issues*, Edward Elgar, Cheltenham, U.K. pdf

A handwritten signature in black ink, appearing to read 'C. Hunt', written in a cursive style.

13 June, 2002