

Cut now, pay later: Tropical rainforests of the Solomon Islands

by Herb Thompson and Deborah Kennedy

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Touchstone: "You have said; but whether wisely or no, let the forest judge." 1

One of the most serious issues facing humankind at present is the exceedingly rapid destruction of the tropical rainforests, one of the earth's most important "raw materials". Tropical rainforests provide a home for a majority of the earth's species; and one potential catastrophe at hand involves the disappearance of these species as a related consequence of the destruction of the rainforests.

In this paper we focus on the depletion of this important resource by taking a small island nation, the Solomon Islands, as a case study. Since this same nation was reviewed in the pages of Raw Materials Report in 1983,2 showing the impact of transnational corporations through commercial logging, it seems appropriate to update the information. There have been many changes, one of which is the replacement of British and Australian timber companies with those from Malaysia, Indonesia and South Korea. All of these companies now act directly, basically as sub-contractors for the Japanese Sogo Shosha, to provide for the largest single component of world demand for the region's tropical rainforest timber, the Japanese consumer. What has not changed during the past twelve years is the continuous unsustainable logging of one of the world's most valuable resources and ecological structures. See Table 1 below.

The underlying argument is twofold: (1) that there exists at the micro-level, with particular reference to tropical rainforests, a fundamental dilemma between poor people seeking to raise their standard of living, while at the same time attempting to protect the resource base for the use of future generations; and (2) at the macro-level, an excessive utilisation of valuable resources by government agents in poor nations to resolve balance-of-payments crises continues to generate the long-term loss of capital stock and the nation's heritage.

Normally, in every nation, there exists a feasible set of economic activities and a corresponding level of environmental quality. A maximum feasible level of logging in rainforests may correspond with a low level of environmental quality. Of most concern, as is presently the case in Solomon Islands, is when logging is neither economically nor ecologically sustainable over the long term.

Presently, the Minister of Forests and the Prime Minister view the value of forests primarily in terms of the economic value of the wood produced. Short run profit maximising behaviour is deemed rational in this context even though when viewed from the environmental perspective, wholly irrational and detrimental. An additional problem is that the capital stock providing for the high profits, is being depleted. Choice is always at the forefront, irrespective of whether both the economic and the environmental aspects of the resource may be presently sustainable, or one is made sustainable by sacrifice of the other. That is, there are various, possibly infinite, degrees of sustainability which can be represented by various class interests, State policy or conservationist demands. Add to this the political pressures to enhance economic growth in a low-income nation. The result is a most pessimistic scenario which partially explains the total lack of any change in the circumstances surrounding sustainability since 1983.

The section which follows places the Solomon Islands contextually in the region known as Malesia. This region is known as one of the richest biotic zones in the world and includes those few remaining countries still exporting tropical rainforest logs. The next section presents the political economy of the Solomon's including a chronicle of the forestry sector. It is evident that the people of the Solomon's, like the poor in many nations, confront the dilemma between economic growth and environmental destruction. This dilemma is made more complex by the inequitable distribution

Table 1. Solomon Islands. Timber and logs. Production and export by volume and value³

Years	Production km ³	Change %	Log exports km ³	Export (logs) kSRD	Export (sawn) kSRD	Total kSRD	% of all exports
1960	8.9	-	5.1	120	-	120	3.2
1961	9.3	4.5	4.2	100	-	100	2.8
1962	9.9	6.5	5.8	167		167	5.1
1963	15.7	58.6	7.5	142	_	142	3.8
1964	35.0	122.9	26.9	301		301	7.4
1965	27.1	-22.6	18.0	196	_	196	4.1
1966	42.8	57.9	33.1	401	-	401	10.7
1967	89.2	108.4	80.5	1 079	-	1 079	21.1
1968	137.8	54.5	125.7	1 412	_ *	1 412	25.4
1969	217.0	57.5	207.7	2 475	_	2 475	38.2
1970	234.3	8.0	225.5	2 836	-	2 836	39.8
1971	266.8	13.9	257.8	3 283	_	3 283	36.2
1972	246.3	-7.7	237.0	2 708	_	2 708	29.6
1973	251.0	1.9	242.0	3 794	. –	3 794	39.7
1974	235.4	-6.2	208.3	4 267	15	4 282	23.5
1975	228.6	-2.9	241.2	3 026	105	3 131	26.5
1976	264.1	15.5	237.6	6 062	174	6 236	31.3
1977	259.0	-1.9	236.7	7 725	163	7 888	26.6
1978	274.2	5.9	246.3	6 837	344	7 181	21.8
1979	298.8	9.0	257.9	14 721	1 146	15 867	26.8
1980	298.8	0	257.9	14 882	1 081	15 963	26.3
1981	364.5	22.0	315.2	14 728	1 343	16 071	27.9
1982	388.3	6.5	330.0	21 387	1 463	22 850	40.4
1983	394.8	1.7	336.7	18 792	1 184	19 976	28.1
1984	422.9	7.1	391.5	28 742	1 316	30 058	25.4
1985	378.0	-10.6	330.4	23 709	1 035	24 744	23.8
1986	471.0	24.6	433.9	33 954	1 774	35 728	29.3
1987	321.8	-31.7	280.3	35 067	2 106	37 173	29.0
1988	310.3	-3.6	281.3	36 902	2 183	39 085	23.3
1989	298.0	-4.0	259.6	38 631	2 538	41 169	24.0
1990	436.7	46.2	399.0	56 526	4 286	60 812	34.1
1991	352.0	-19.2	302.7	51 092	4 103	55 195	24.1
1992	392.0	11.4	557.0	104 018	6 440	110 458	36.7

Major loggers on the Solomon Islands.

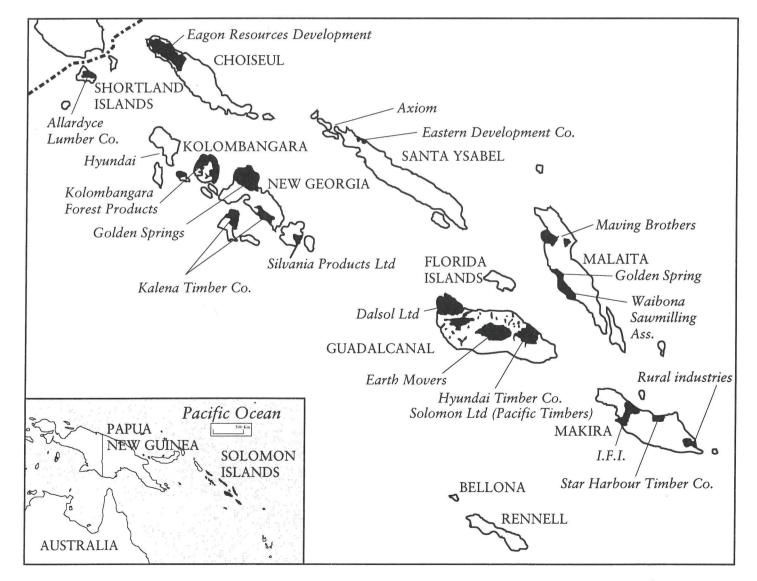
of the wealth both within and between nations, exacerbated by the depletion of, arguably, the world's most valuable resource.

Tropical moist forests in Malesia

At least 500 million people in the world depend on forests for their livelihood. Current estimates suggest that 17 million to 20 million hectares of forests are being lost every year.⁴ Overall, the losses to tropical forests are now estimated at about 1 per cent annually.⁵ This is clearly not globally sustainable by any definition. Moreover, while negative ecologi-

cal and social consequences can accompany deforestation in any type of forest, the loss of tropical rainforest is especially worrying because these forests are a major repository of an extraordinary richness of biological diversity. Although rainforests cover only 7 per cent of the earth's land area, they contain about onehalf of the 1.9 million named species in the world biota. It is this species extinction which is potentially the most serious consequence of tropical forest clearance.6 Even if reforestation or selective felling is attempted, the original ecosystems cannot be fully renewed or sustained.7

The archipelago of the Solomon Islands contains some endemic forms of plants and animals found no where else on earth. Of 163 species of land birds that breed in the Solomon's, 72 are completely unique. 62 which do appear elsewhere are represented in the Solomon's by unique subspecies. 22 frogs, 27 lizards and 9 snakes are found only here. Although the level of endemism among the 4500 plant species is low, that for orchids is very high.⁸ Over 143 various plants have been specifically identified by villagers over the years as having medicinal uses covering problems such as boils, leprosy, coughs, snake bites, con-



stipation, malaria, and epileptic fits among others.⁹

The tropical rainforest in the Southeast Asian/Pacific regions coincides with the former Malaysian Archipelago and two closely related nuclei. First, there is Borneo-Malay-Sumatra and The Philippines, with outliers in the Andaman Islands, Sri Lanka and poorer forests of southwest India. Second, the island of New Guinea, including the Solomon Islands to the east, with one outlier along the eastern coast of tropical Australia, where some pockets of rain forest survive. In this Malesian region generally, the larger the island, the richer the species count. But Malesia as a whole is mountainous, hence on most islands true rain forest can only occupy relatively narrow strips. Forests in Malaysia, Sumatra, Borneo and the Philippines have been heavily depleted in recent times 10: New Guinea and Solomon Islands forests are still largely intact but have been undergoing heavy logging over the past twenty years.11

Solomon Islands

Northeast of Australia and east of Papua New Guinea, with a land area of 27 540 square kilometres, lies an archipelago of 992 islands spread across 1 500 kilometres of the South Pacific. Roughly, there are two parallel island chains with six major island groups. Choiseul, Ysabel and Malaita are found in the northern group and New Georgia, Guadalcanal and Makira in the south. Rennell, Bellona and the Temotu Province Islands lie to the SSE of the main groupings. The Shortlands are found in the north, adjacent to the island of Bougainville which has been the site of a violent rebellion by the indigenous inhabitants against CRA Ltd and the Papua New Guinea government since 1988. The islands of the archipelago, now known as the Solomon Islands were originally settled in 3 000 BC. From that time until the middle of the twentieth century all development was primarily alongside or within the tropical rainforest. Forests and the associated habitat are regarded by the people of the Solomons as their most important resource from which they derive status, wealth and subsistence. Conflict over the management of the country's limited but valuable commercial timber resources centres on the issue of how to maximise returns from timber production and exports, while protecting and ensuring the sustainable use of the resource. ¹²

80 per cent of the Solomon Islands are still covered in tropical rainforest, and 86.7% of the land is customarily owned by the indigenous people (See Table)¹³. Customary land tenure is varied and complicated with different customary tenures on different islands as well as many different customs regarding the land within the islands, the description of which is beyond the scope of this paper. 14 Land tenure is a pressing concern for the peoples and government of Melanesia, where the contradictions between tribal and capitalist economic values are being acted out on the ground in disputes between local people over what should become of their land.15 Suffice it to say here that although, under the law, logging would not take place without the concurrence of customary landowners, "effectively, decision-making with respect to the management of the forests is in the hands of timber companies and government or international agency officials". 16 In a variety of ways, the customary landowners are convinced by government agents and company officials that leasing their land to logging companies is in their best interests. The land is then leased from the indigenous landowners directly by a company; or indirectly by the government and passed on to the company. Timber licenses are then issued by the Ministry of Forestry and work begins.

Nine-tenths of the population depend on subsistence agriculture, fishing and forestry for at least part of their livelihood. In strict monetary terms a large number of households are completely dependent on healthy forests and reefs for

Table 2. Solomon Islands. Land ownership

Categories	Size km ²	Per cent
Customary	23 888	86.7
Alienated	3 668	13.3
Of which:		
State	2 460	8.9
Private	1 208	4.4
Total	27 556	100.0

what little cash can be earned. Of course, many indigenous landowners independently and without coercion or enticement of any type, have agreed to accepting cash in return for leasing the land for use by logging companies. 17 For others however, producing mats, baskets and other handcrafts, as well as making thatch and producing canoes and houses from forest materials make the forest important. Because of this affinity between the indigenous people and rainforests, the forests still incorporate important tambu (sacred) sites, set boundaries between landowners, and have symbolic importance which include myths, fairy tales and stories of kastom.

Throughout the islands, but particularly on Kolombangara and Makira, large sections of fringing reefs as well as the forests have been made totally unusable by logging and the resulting build up of silt and sediment and land degradation. It is now estimated with much more assuredness than a decade ago that in fifteen years all accessible lowland forest will be cleared. The quantifiable commercial losses due to activities identified above, not to mention the qualitative breakdown of society and culture, are never taken into account when calculating the benefits of deforestation.

The country had been a British Protectorate for 85 years until independence on July 7, 1978. 19 Six main islands of the nation account for 80 per cent of the total land area and population. The population

of this small island country is growing rapidly at about 3.46 per cent annually and amounts to about 372 746 people (July, 1993 estimate). The ethnic division of the peoples is Melanesian 93 per cent, Polynesian 4 per cent, Micronesian 1.5 per cent, European 0.8 per cent, Chinese 0.3 per cent and other 0.4 per cent. There are at least 120 indigenous languages but the *lingua franca* is Melanesian pidgin.²⁰

Ten per cent of the population lives in the capital city, Honiara. The wage-earning population amounts to 23 448 people. Including subsistence activities, agriculture accounts for about one-third of the nation's output, the major crops being coconut, cocoa and oil palm. However, the most important resources of the islands are to be found in forestry and fishing. These two sectors account for about 10 per cent of total valued-output, but more importantly, they provide twothirds of export earnings.²¹ There exists a potential for the development of mineral resources such as gold, bauxite and copper, but nothing as rich as that found in Papua New Guinea.²² Manufacturing output, most of which involves the processing of primary products, remains very limited, accounting for only 4 per cent of the gross domestic product and 6 per cent of formal employment. Basic wage rates are relatively low and unemployment is a growing problem as the cash nexus begins to bind the people together in a variety of marketplaces. Most people of the islands travel by sea and the only reasonable road transportation is concentrated in Honiara and the surrounding areas of Guadalcanal. Inadequate infrastructure makes it exceedingly difficult for people to achieve faceto-face contact with each other or gain access to the increasingly important marketplaces.

For the ostentatious consumers of the world the people of the Solomon's would be considered poor. Per capita national product is about 600 USD annually²³ which places the Solomon Islands among the lowest income group of countries in

the world. The well-being criteria would also put the nation far down on the list with only 15 per cent of the adult population being literate, and malaria has become an increasingly serious health problem for everyone with an average of 4 cases per 100 people in 1994. The villagers are very much aware of the clear relationship between logging and the increase in malaria, especially when the roads are constructed.²⁴

For most of the population there is a strong subsistence base and the extended family system has helped to provide basic needs of food and shelter. ²⁵ But a nation this poor in macro economic terms implies that the forestry sector is of prime importance, particularly since logging has become a major source of foreign exchange.

Forest Chronicle

In the Pacific, of specific interest herein, Papua New Guinea, the Solomon Islands and Vanuatu have all experienced heavy logging historically, and a more rapid increase in logging during the 1980s up to the present. Contracts have been struck with foreign timber companies, mostly from the east Malaysian state of Sarawak. In Papua New Guinea, Rimbunan Hijau, a Malaysian company, which also runs a daily newspaper in the urban areas, controls 86 per cent of the logging licenses. Malaysian entrepreneur Ting Jack Sang has shipped equipment to Vanuatu that would enable him to log 100 000 to 150 000 cubic metres of timber a year which is ten times as much as was harvested in the entire country in 1991.²⁶ And another regionally ubiquitous Malaysian company, Berjaya, is the largest investor in the Solomon's.

Logging-for-export operations in the Solomon's actually began as early as 1923 by an Australian company at Vanikoro in the eastern islands. ²⁷ However, despite the large reserves of timber throughout Melanesia, there were very few surveys and little large-scale incursion in the Solomon's until after World

War II. During the war, surveys of the timber resources took place for military purposes and these led to reviews after the war. Although timbers of the Solomon's were virtually unknown, heavy concentrations were discovered on the New Georgia and Santa Ysabel groups. The Shortlands, Choiseul and the interior of Guadalcanal also have significant stands. Softwoods of kauri pine are to be found in the Eastern Outer Islands. The hardwoods, more likely to be found in the Western Islands, vary from light softtextured woods such as Campnosperma brevipetiolata to the hard dense species such as Dillenia salomonensis..

Minimal logging had taken place since before the War, but the systematic working of hardwood forests for log exports began in 1964 by the British company Levers Pacific Timber Ltd., when the company exported 400 789 cubic feet of timber to Japan. It became evident that a profitable export market could be set up once the major hardwood shortage in Japan was recognised.²⁸ Prior to independence, the colonial government directly controlled the activities of logging companies. While it was specified by the colonial regime that "modern governments generally recognise that they have a moral duty to preserve such forest as will be needed by posterity..."29, agents of the colonial legislature quickly recognised the "encouraging long-term prospects for timber development".30 This is exemplified in the following exchanges during parliamentary debate during which the colonial representatives showed a clear understanding of the revenue potential of rainforest timber when placed on international markets:

R. M. Kelesi: "Mr. Chairman, I think there is enough forest in these Islands that will bring more revenue into the Protectorate...the Government should take immediate steps now to encourage private enterprise to come over."

Mr. C. Reece: "Mr. Chairman, forestry is a rather new department but a new outlook for revenue coming in, and could we

be given some indication of exactly what is in mind at present? What is intended in the next 15 years, or few years — what is liable to happen?"

The Honourable Financial Secretary: "Mr. Chairman, (Forestry) is a sphere in which we can help ourselves, and in which I hope we shall be able to increase our local revenue in the years to come. I was also glad to hear the member from Malaita mention the encouragement of private enterprise. The government hopes to do just that....Many of the types of timber are suitable for export (and)...long term prospects are good."³¹

Commercial logging, originally dominated by British companies, was carried out on alienated land that the government owned or leased long term from customary landholders. The companies operated under the licence and control of the Conservator of Forests, and landowners were permitted to fell timber for domestic use. A small Forestry Department was set up in 1955 to carry out research on logging operations, exploitation and reforestation.³²

In 1957, the first year adequate data was provided in annual reports, 2.8 million superficial feet³³ of logs were exported with a value of 87 000 GBP. In 1958 the Annual Report noted that "considerable interest in buying Solomon Island timbers has been displayed by Japanese importers and the export of large quantities of timber appears to be good." In 1960, the Timber Act came into effect which gave the government power to declare areas of forest as either "Reserved" or "Forest Areas" so that permits could be issued for logging.³⁴ Subsequently, the Act only left the government with power to issue commercial logging licenses in government owned forests. Between 1958 and 1963, the total Japanese importation of tropical hardwood logs increased by 88 per cent. At this time the imports primarily came from the Philippines and Sabah.

The Solomon's began to export logs in 1964 with the first shipment sent to Japan by Levers Pacific Timbers Ltd. of

400 789 cubic feet, alone worth 75 000 GBP. Levers Pacific Timbers was soon followed by the Japanese owned Forestry Timber company in the Western Province. Then came a Canadian company in New Georgia called Kalena Timber, and a new Australian company, Allardyce Lumber in Santa Ysabel. All of the operations were set up for cutting and exportation of logs.

By 1967, 1 127 635 GBP was earned from log exports, which more than doubled again by 1970 to 2 784 000 GBP. In the 1970s, the Solomon Islands had officially become part of the South Seas trade in log exports, a market dominated by Japanese Sogo Shosha. Japanese demand for Solomon's timber showed no sign of abating despite a dramatic increase in exports by the Indonesians in Kalimantan and the Malaysians in Sabah and Sarawak.

More recently, since a Food and Agricultural Organisation Consultancy Report in 1987, there have been a variety of efforts to revise forest legislation, policy and regulations.³⁶ In 1989, the Minister for Natural Resources presented a "Forest Policy Statement" to the National Parliament. This was also done in 1993 following severe criticisms from the World Bank. However, for a variety of political and economic reasons, there continues a reluctance to revise or enforce any forestry policy which could approach sustainability.37 When the previous government, the National Coalition Partnership (a coalition of 5 political parties) took office in November 1993, there was enthusiastic rhetoric suggesting that logging could and would be brought under control. The Government promised to ban the export of round logs completely by 1997, while in the meantime, encouraging downstream processing of timber. Instead of bringing it under control, more trees than ever were felled and exported. For a number of reasons, the Prime Minister, Francis Hilly, soon lost the majority support of his Ministers and as a consequence, the Government lost office in November 1994.38

The new government, under Solomon Mamaloni, openly views economic development and the debt crisis as problems of much more concern than preservation of old-growth tropical rainforests. He also dismisses suggestions that the nation's forests need more protection than presently exists. In December, the new forestry Secretary, John Naitoro, announced a new policy under which loggers would have to fund the building of health clinics, schools, water supply lines, roads and reafforestation projects. A South Korean company, Eagon Resources Development started building facilities in its area of operations. The other companies stood on a 'wait-and-see' attitude.

Immediately after the election in November 1994 the Government cut the export levy to 32 per cent on the first \$250 per cubic metre sale price and 35 per cent on the balance; and announced that logging companies could seek a 5 per cent remission of export duties and rechannel the funds into community projects. The Prime Minister also signalled that the previous government's moratorium on the issuance of licenses would shortly be reversed. Therefore, while more attention appears to be given to equity and development objectives, it is blatantly connected to the forest being defined as "green gold" by the forestry secretary. 39

There are 21 loggers licensed to take 1.4 million cubic metres of round logs annually. As of January, 1995 only 14 of the companies were operating. If all the companies took advantage of their licenses, it would amount to four times the level of sustainable logging annually. The agreed FAO, World Bank level of sustainable logging of 325 000 million cubic metres annually is usually surpassed within the first six months of any calendar year. In the first six months of 1994, 344 000 cubic metres of round logs were exported in sales worth 63.7 million USD. 40

Actual production between 1990 and 1994 ranged between 400 000 and 800 000 cubic metres annually. Replant-

ing operations, almost entirely on government land, cover only about 1 000 hectares per year. Given measured "natural stock growth" of tropical hardwoods at an average of 0.8 cubic metres/hectare/annum, these replanted areas lead to the replacement of 800 cubic metres per year. At this rate, depending on the definition of "accessible areas", ⁴¹ a linear projection suggests that the Solomon Island's forest resources will be exhausted in 15 – 25 years. An expansion to levels permitted by existing licences will deplete the resource within 8 years. ⁴²

Figures from the Central Bank of the Solomon Islands estimate log revenues to the Government at 7 MUSD in the first quarter of 1994. This amounted to 39 per cent of all collections from Customs and Inland Revenue. Overall, the share of revenue from log export fees now totals more than half the government budget.⁴³ The previous Government under Prime Minister Francis "Billy" Hilly, in July, 1994, doubled export duties on the export of logs to 35 per cent levy on the first \$250 of the free-on-board price per cubic metre and 65 per cent on any amount higher that this. The move completely changed the tax structure and the logging companies started to stockpile logs and begin an advertising campaign against the policy change. Then a moratorium was placed on the issuing of new licenses and the Forestry Division of the Ministry of Natural Resources notified all concession holders that the "20 per cent processing requirement was going to be strictly enforced". These legislative and policy shifts created disarray in the industry as the logging companies began to threaten a capital strike and a shutdown of their enterprises in the nation. Many of the timber entrepreneurs argued during the election that a change of government would be seen as a favourable decision by the people.

Since 1990, companies like Eagon and Hyundai of South Korea, or Earth movers, Silvania and Golden Springs from Malaysia, have removed 30 per cent of the loggable timber in the Western Prov-

ince of the Solomon's. In 1994, the Australian International Development Assistance Bureau sent observers to witness Silvania's activities on the island of Vangunu on the Marovo lagoon. This is the largest double barrier reef lagoon in the world and has been nominated as a world heritage site. The Bureau's report argued: "The degree of canopy removal and soil disturbance was the most extensive seen by the authors in any country". 44 John Collee, an expatriate physician living in the area, points out that for the equivalent of half the salary of a Korean timber executive, an entire village (40 people) lose their fishing and gardens, their water supply and their social structure. "You have to see a photo of it to know that this is not development. It's not even legitimate business. It's a crime against humanity".45

As the National Ombudsman argued in 1989 (and continued to argue in an interview with one of the authors in July, 1994): "...For many people, all they have to sell are their trees, and logging companies will give quick, easy money for them. The royalties and taxes they pay contribute to our national economy but no one knows if we are getting a fair price. We have little idea what the long term effects of large scale logging will be on our rivers, our soils and our climate." 46

Conclusion

It could be argued that much rainforest clearing is simply poor land use planning. Others might argue that rainforest clearing is economically unwise since many of the benefits provided by rainforests have not been identified or included in traditional economic analysis. Finally, there are those who express what might be described as an ethical concern that a part of the world's heritage is being lost. The main problem is that research which attempts to provide realistic or feasible alternatives to the economic exploitation of rain forests remains quite elementary. A simple dilemma is faced by policymakers between providing for economic development in a relatively poor nation such as the Solomon Islands, while, at the same time, adhering to the prerequisite of sustainable resource use and protection of the environment for future generations

Yesterday's transnational corporations in the Solomon Islands are today replaced by the wealthy sub-contracting entrepreneurs of the newly industrialising countries, particularly those of Malaysia and South Korea. Malaysian companies, principally the logging companies, have built sizeable investment stakes in the Solomon's and Papua New Guinea. The Berjaya Group recently announced its acquisition of 100 per cent of the equity of Star Harbour Timber Company Ltd., a 60 MUSD investment, and then demanded forest concessions of 1.5 million hectares. Beriava gained unwanted notoriety recently when the managing director was accused by Commerce Minister Joses Thannuku of attempted bribery. The managing director, although protesting innocence was deported by the government.⁴⁷

Rather than developing a sustainable, environmentally sound, timber industry, the major focus by Government representatives at the highest levels is presently on obtaining greater economic returns from logging.⁴⁸ The reasons for this include: a steady worsening in the balance between government revenues and expenditures; a chronic deterioration in the country's terms of trade; and a pervasive dependence on foreign aid to bridge the domestic savings gap and the foreign exchange gap. 49 For 1992, earnings from log export sales were 128.3 MUSD or 41 per cent of the total foreign earnings and for 1993, 222 MUSD, or 61 per cent of total foreign earnings. Export duty on the export of round logs provided revenues to the Government of 70 MUSD.

These figures provide the incentive for large-scale removal of trees without adequate post-logging or other land regeneration measures. A number of reforestation projects have been established with

assistance from donor countries and international lending agencies. Yet unsustainable logging continues. In 1987, a year in which the logging quantum actually declined due to Cyclone Namu, a member of Parliament stated:

"...the way we are now harvesting our merchantable timbers is very frightening when we consider that the annual quota has now exceeded the allowable annual quota. Usually, Mr. Speaker, the government's allowable quota is approximately about 400 000 cubic meters per annum, but now we have reached somewhere between 700 000 to 800 000 cubic meters per annum." 50

At the end of 1993 Roman Grynberg and David Forsyth wrote:

"The Solomon Islands economy continues on an unsustainable growth path despite an impressive growth rate in 1992. Solomon Islands, with its heavy reliance on logging, is one of the few countries in the Pacific conducting an economic policy that is clearly and indisputably unsustainable even in the medium term. In 1992, declared log exports at 553 000 cubic metres were almost double the maximum sustainable yield. Few firms in Solomon Islands have been operating at anywhere near their legal quota and are in a position to substantially increase volumes from their existing licences if they so choose."51

In 1993, the Central Bank of the Solomon Islands stated that from a macroeconomic perspective, the logging boom continued to support unsustainable levels of consumption gained by foregoing forest resources in the future. "...excessive logging represents the antithesis of sustainable growth". 52

Information gathered from knowledgeable informants suggests that the "sustainable" quota should, in fact, be closer to 200 000 cubic metres per annum. ⁵³ However, accepting that the World Bank, FAO and the Inventory Project in the Ministry of Forestry estimates which use 325 000 cubic metres as the sustainable harvest quota, the most recent information from the Central Bank

paints an increasingly pessimistic scenario. The information indicates that 238 132 cubic metres of round logs were exported in the first quarter of 1995. This compares to 165 149 cubic metres exported in the first quarter of 1994. The Timber Control Unit in the Ministry of Forestry revealed that from January to December, 1994, a total of 627 952 cubic metres of logs were exported.54 Prima facie these most recent figures, based on secondary data, suggest that the situation has reached disastrous proportions. The argument that logging on the Solomon Islands is unsustainable, is evident. The forest will judge. But it is the next generation which will pay the penalty.

Notes

Assistance for this article was provided by the Australian Research Council. Appreciation is extended to Robert Leeson and Ameer Ali for proof-reading and advice and to the anonymous reviewer of RMR who provided most helpful comments and suggestions.

- ¹ William Shakespeare, As You Like It, Act III, Scene 2, in S. Wells and G. Taylor (eds.) The Complete Oxford Shakespeare, Volume II: Comedies, London: BCA, 1990, p. 703.
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- ³ Statistics Division, Ministry of Finance, Solomon Islands

Statistical Yearbook, Honiara: Government of Solomon Islands, Table 3.6.

- ⁴ J.P. Lanly, K.D. Singh and K. Janz, "FAO's 1990 reassessment of tropical forest cover", *Natural Resources*, volume 27, 1991, pp. 21–26.
- ⁵ The World Bank, *The Forest Sector*, Washington, D.C.: IBRD, 1991, p. 5.
- ⁶ J.A. Sayer and T.C. Whitmore, "Tropical Moist Forests: Destruction and Species Extinction", *Biological Conservation*, Volume 55, No. 2, 1991, pp. 199–213.
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logging: the case for a ban on tropical timber imports", *The Ecologist*, volume 19, 1989, pp. 166–168.

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