

Sustainable Natural Resource Use and Economic Development in Small States: the Tuna Fisheries in Fiji and Samoa

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ABSTRACT

This paper is concerned with the sustainable management of the Western Pacific tuna fishery given its critical contribution to the economies of many small island developing states in the region. The paper focuses on contrasting the operation, regulation and management of the tuna fisheries in two Pacific island states, Fiji and Samoa, in the light of progress in regional fishery co-operation, and is based upon research undertaken in 2003. The analysis identifies critical shortcomings in implementation and enforcement of sustainable management policies in Fiji, which compare unfavourably with Samoa's attempts to ensure the long-term sustainability of a crucial economic sector. The principal differences in the effectiveness of these policies can be ascribed to the quality of governance as well as the general coherence of national economic policies. The paper attempts to highlight some of the problems faced by small developing states in ensuring the long-term sustainability of an important migratory marine resource. Copyright © 2006 John Wiley & Sons, Ltd and ERP Environment.

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Introduction

THE PACIFIC IS THE MOST IMPORTANT TUNA FISHING REGION OF THE WORLD, SUPPLYING SOME 35 per cent of global tuna landings and some 40–60 per cent of the total tuna for canning. The Pacific tuna fishery is also the principal natural resource of many of the small island developing states (SIDS) in the region and a key component in their GDP and export earnings, in particular Kiribati, the Federated States of Micronesia, the Marshall Islands and Tuvalu. The potential economic

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contribution of the sector is therefore of critical importance to the continued growth and development of many Pacific island states. The ownership, conservation and exploitation of this resource are therefore highly sensitive economic and political issues in the region.

Major concerns have been expressed about the long-term sustainability of the Western Pacific tuna fishery. The first relates to the governance and long-term sustainable management of the industry by the Pacific island states. Governance and management practices in the Western Pacific tuna fishery are currently not sufficiently developed at the national and regional levels to ensure its long-term sustainability. These institutional structures are subject to increasing stress from international commercial interests seeking to satisfy the growing demand for fresh and canned tuna. The second relates to the relatively low levels of economic benefit derived by the Pacific island states from tuna fishery. Many encounter severe difficulties in monitoring and enforcing national fishery policies within their territorial limits such that there is considerable scope for illegal fishing and also corruption. Poaching is estimated to account for around 40 per cent of the total regional tuna catch (Commission of the European Communities, 2002) Further, the bargaining power of the Pacific island states is weak with respect to negotiating bilateral fishery agreements with the regional deep-water fishing nations – China, Japan, Korea, Taiwan and the United States. Although the annual tuna catch is estimated to be worth some \$US 1.7 billion, access fees represent just 4 per cent of its gross value (around \$US 63 million) (Commission of the European Communities, 2002). This strongly suggests that the tuna resource is being undervalued and/or undersold, and that the Pacific island states have been unable to maximize their potential benefits from the industry.

In some respects, the issues of governance of the tuna fishery and the distribution of its economic benefits are closely linked. The availability of substantial economic rents encourages poaching and fund corruption, so inhibiting the development of robust institutional governance structures. The net result is the unsustainable exploitation of a vital natural resource for many small Pacific island states. The regional tuna stock is also under threat from large-scale purse seining vessels from deep-water fishing nations. Unlike the more sustainable pole-and-line and long-line fishing methods, purse seining generates high by-catches of other fish (e.g. mahi mahi, marlin, swordfish and wahoo) together with immature tuna, as well as leading to high dolphin mortality rates.

This paper is concerned with the sustainable management of the Western Pacific tuna fishery and focuses specifically on institutional structures, governance and the sustainability of tuna fishery policies in Fiji and Samoa. The first section provides a brief summary of the evolution of inter-governmental fishery co-operation in the Western Pacific region with respect to tuna. This is followed by two sections that present a critical overview of the tuna fisheries in Fiji and Samoa, drawing upon fieldwork undertaken in summer 2003. The final section considers the implications of the contrasting institutional structures, governance and tuna fishery management policies in the context of multilateral attempts at regional sustainability.

Multilateral Co-Operation in the Western Pacific Tuna Fishery

The sustainable exploitation of renewable marine resources, such as tuna, is an issue of increasing global concern, particularly in the context of widespread evidence of the growing depletion of fish stocks. Many fisheries are characterized by migratory flows across the artificial constructs of 10 mile limits, national exclusive economic zones (EEZs) and international waters. As such, the development of effective and sustainable policies for marine resource conservation and exploitation therefore requires co-ordinated and concerted action at both national and regional inter-governmental levels. The effectiveness of poli-

cies to control the use of common fisheries is subject to the classic problems posed by public goods: the incentive for countries and individual fishing vessels to ignore agreed restrictions on catches. In international waters, multilateral fishery conservation policies may be almost worthless. In the Pacific, many SIDS have very substantial EEZs but lack the resources to monitor and enforce national and regional fishery conservation policies. The almost inevitable outcome is therefore a 'negative sum game', where governments and fishing vessels all have an incentive to cheat and the likely outcome is the catastrophic depletion of economically important fisheries to the detriment of all.

The Multilateral High-Level Consultations in the Pacific

The Multilateral High-Level Consultations on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (MHLCs) have been the key forum for negotiations on the Western Pacific tuna fishery and have involved the Pacific island states together with the deep-water fishing nations – primarily Japan, Korea and Taiwan. Multilateral negotiations were made possible by the entry into force of the 1982 UN Law of the Sea in November 1994, guidelines provided by the 1994 Brisbane Forum on regional resource management and the 1995 UN Implementing Agreement on Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. Successive MHLCs have provided a regional forum for negotiating the sustainable management of Western Pacific fish stocks, including tuna, made explicit in the Majuro Declaration of June 1997 resulting from the second MHLC (see MHLC2, 1997).

The MHLC4, held in Hawai'i in February 1999, resulted in a draft Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific. This provided a framework for the international regulation of fishing throughout the central and western Pacific, not only within the EEZs of the signatory countries but, significantly, also on the previously unregulated high seas. The extension of fishery management to the high seas is particularly important in the case of tuna because tuna species are highly migratory and so cannot be managed sustainably without multilateral co-operation.

The Western and Central Pacific Fisheries Convention

Following on from MHLC4, the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific was adopted in September 2000 in Hawai'i. The convention sets out the regulatory framework for the sustainable management and regulation of the Pacific fishery through the formation of an eponymous commission. While the signatory Pacific island states have individual responsibility for their EEZs, the commission is responsible for the implementation of the convention on the high seas.

The sustainable management of the regional fishery as set out in the convention is based upon several key principles, including the precautionary principle, monitoring of impacts upon target and non-target species and the protection of bio-diversity. The regulatory framework provides for detailed monitoring of vessels and fishing effort, compliance and enforcement requirements, including observers (Convention on the Conservation and Management of Highly Migratory Fish Stocks, 2000). The initial focus has been to develop a clear management framework for the tuna fishery so as to assure the long-term sustainability of the four main species: albacore, bigeye, skipjack and yellowfin. Measures include catch quotas, entry restrictions and controls, the regulation of fishing gear and their enforcement on the high seas covered by the convention. A full assessment of the current state of the tuna fishery in the Western and Central Pacific can be found in the work of Langley *et al.* (2004).

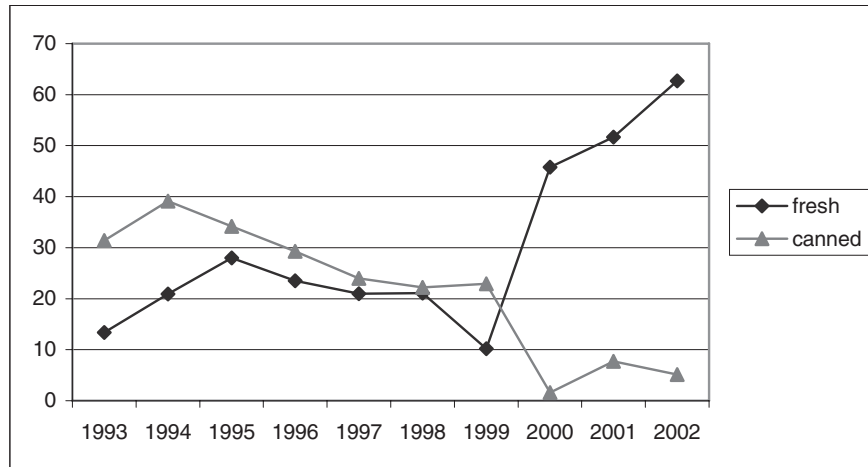


Figure 1. Fijian exports of fresh and canned fish, 1993–2002 (\$F millions)
Source: Fiji Islands Bureau of Statistics.

The Fijian Tuna Fishery

In 2002, Fiji's exports of fresh and canned fish, predominantly tuna, were worth some \$F 90 million (around \$US 50 million). This represented some 9.5 per cent of the country's total visible exports and 22 per cent of food and drink exports. In the decade from 1992, Fiji's total exports of fish (fresh and canned tuna) doubled in value, driven primarily by the rapid growth of exports of fresh fish (see Figure 1). Further, the share of fresh fish in total fish exports increased significantly from 30 per cent in 1992 to over 90 per cent in 2002. This dramatic rise has two inter-related explanations. There has been a significant rise in the demand for fresh fish, such as tuna, in the major consuming markets as tastes have shifted towards a healthier diet. This has led to a relative price change favouring fresh over canned tuna. In response, fishing companies have switched their catch effort towards higher value and larger fresh big-eye and yellowfin tuna at the expense of lower-value and smaller albacore tuna for canning. This development has contributed to the declining performance of tuna canneries in the region, although Fiji's Levuka cannery has been harder hit than those in Pago Pago (American Samoa).

The Operation of the Fijian Tuna Fishery

There are currently some 96 commercial tuna fishing vessels operating under licence in Fijian waters, a number that has risen significantly since the late 1990s. The two largest domestically owned operators have 18 vessels between them. The other major operators are joint venture partnerships between locals and foreign companies from China, Indonesia, New Zealand and Taiwan, averaging between 10 and 15 vessels each.

There are significant concerns within the Fijian tuna fishing industry over falling catch volumes and declines in average fish size. In spite of the progress made at a regional level, there are widespread fears of over-fishing, both within Fijian waters and in the Western Pacific as a whole. Earnings from exports of fresh tuna to Japan have also been falling, partly as a consequence of reduced catches of large high-quality big-eye and yellowfin tuna in Fijian waters but also because of Fiji's declining price competitiveness given the depreciation of the Yen.

The Regulation of the Fijian Tuna Fishery

As a signatory to MHLCA and the Western and Central Pacific Fisheries Convention, the Fijian Cabinet set an upper limit of 150 on the number of tuna fishing licences that could be issued. In summer 2003, however, there were some 218 active tuna fishing licences – 68 above this limit, 93 of which were being used and 125 of which had been approved in principle. The sentiment in the local industry, however, is that the Fijian tuna fishery is operating well above its sustainable capacity of between 50 and 60 fishing vessels and that falling catch volumes and the decline in average fish size have been caused by over-fishing. Although it is unclear how and why the number of licences issued by the Ministry of Fisheries and Forests was able to exceed the limit set by the Cabinet, one explanation is that current licence income was being maximized amid fears of the collapse of the tuna stock in national waters. Whatever the explanation, it is evident that the Fijian government is in contravention of its own stringent criteria for the allocation of tuna fishing licences in response to MHLCA, 1999.

Prior to 2000, annual tuna fishing licence fees were \$F 110 for local vessels and \$F 220 for foreign vessels (including 10 per cent VAT), together with a management fee of \$F 6000. Since then, the cost of the licence fees has been increased to \$F 16000 for local vessels and \$F 26000 for foreign vessels together with an access fee of \$F 10000. Charter vessels are required to pay a fee of \$F 20000. The current licensing procedures also give rise to unnecessary risk and uncertainty in the sector. Licences are issued on an annual basis but there is no security of tenure, in that future licences cannot be guaranteed in spite of there being only 30 days notice for licence renewal.

The Fijian tuna fishery is highly regulated such that foreign companies wishing to enter are required to have local equity partners. Further, vessels must use indigenous crews where possible or apply for work permits for skilled expatriates, pay at least the Fijian minimum wage and conform to national health and safety legislation. Fishing vessels are permitted to make local landings, regardless of where the fish is caught, so long as the appropriate duty is paid on any fish destined for the local market. Fish landings that are subsequently exported – via airfreight to Auckland, Los Angeles and Tokyo out of Nadi – are exempt from duty.

There is strong local support for the fisheries sector to be reserved for Fijian-owned vessels alone and the government tends to favour local over foreign firms. The principal constraint is that the capital costs of entry are beyond the means of most Fijians such that there is an enforced dependence upon foreign capital. Foreign investors that export benefit from tax holidays and a tax-free regime, which offset some of the impact of relatively high real wages in Fiji. The high cost of fishing licences, however, has also emerged as a problem for local investors.

There is currently no formal body in Fiji for government–industry liaison in the fishing sector. Tuna fishing companies, both local and foreign, may raise issues with the government through the Marine Board, although this has no legislative status. The primary means for government–industry consultation and co-operation in Fiji lies through personal representations to the Fisheries Minister as and when necessary. There is a general feeling among both local and locally based foreign operators in the industry that the government has little interest in the overall health of the Fijian tuna fishery.

Critical Issues in the Fijian Tuna Fishery

The organization and regulation of the Fijian tuna fishery gives rise to several important issues that seriously affect its structure and long-term sustainability. There is a pervasive view in the local industry that, in spite of policy statements to the contrary and its active participation in the regional Fisheries Convention, the Fijian government is more concerned with maximizing the current value of its tuna resource than the long-term sustainability of the sector.

Licensing

The primary problem relates to the licensing system operated by the Fijian Ministry of Fisheries and Forests. Many foreign tuna fishing vessels operating in Fijian waters appear to have little or no interest in the long-term sustainability of the fish stocks. Although this is a common problem in the Pacific region, there are substantial worries concerning the Fijian government's management of this valuable resource. In spite of the objective criteria for the issue of tuna fishing licences laid down, the allocation procedure is based upon discretion by the ministry and lacks transparency. This exposes the process to possible rent-seeking and corruption, since individual licensing decisions are not made public. The result has been that the number of licences issued has exceeded the threshold laid down by the Fijian Cabinet in accord with the guidelines set out in MHL4. Further, the vagaries of the re-licensing procedures have introduced unnecessary costs and risks for fishing firms.

There is widespread suspicion that Fiji's fishery licensing criteria are not being satisfied in all cases, amid allegations of discrimination, inconsistency and corruption in their allocation. The use of discretion extends to the uneven enforcement of wage and health and safety regulations. There is strong evidence to suggest that some operators have been granted fishing licences without satisfying the allocation criteria, while others have experienced substantial difficulties in renewing their licences in spite of being 'good citizens'.

Fishing licences play an important role in ensuring the sustainable use of a valuable natural resource as well as providing a means for governments to raise revenue and set appropriate qualifying criteria to maximize domestic policy objectives. In the case of Fiji, it appears that the allocation of tuna fishing licences currently satisfies only the revenue-raising requirement. The introduction of a transparent and non-discretionary licensing procedure would remove the incentive for rent-seeking and ensure that employment and health and safety regulations are adhered to. This would have the additional benefit of increasing the magnitude and extent of the beneficial onshore economic linkage effects generated by the sector. While a system of permanent but tradeable licences, used in New Zealand, may not be appropriate, some form of rolling licence would reduce corporate risk and possibly promote greater onshore linkage creation.

The Impact of Local Policies

The poor governance of the fishery licensing procedures in Fiji has also exacerbated shortcomings in domestic policy towards the local tuna fishing industry. Although local sentiment favours making the tuna fishery a reserved sector for domestic firms, the structure of incentives resulting from a combination of poor governance and a biased policy structure favours foreign firms over local ones and those that engage in shady practices over 'good citizens'. This inverted incentive structure is most evident in the allocation of fishing licences and also in national policies towards fuel taxation and the transshipment of fish.

The structure of marine fuel taxation in Fiji has an inherent bias against locally based foreign firms and, even more so, against local firms. Licensed foreign vessels that have no onshore facilities are permitted to obtain marine fuel in Fiji at the international bunker rate. Those with onshore facilities pay a 25 per cent 'duty free' premium – conditional upon exporting their fish – while local firms must pay the full local price, which has a 50 per cent mark-up. Marine fuel accounts for around 10 per cent of total turnover in the industry, such that local firms suffer from a 5 per cent cost disadvantage relative to footloose foreign vessels. Further, they are ineligible for duty-free imports of inputs, such as boats, fishing gear and bait, regardless of whether they export. The cost advantage of more dubious operators in the Fijian tuna fishery, whether licensed or not, is further enhanced by the poor enforcement of local legislation. These vessels are reckoned to be paying only 25–33 per cent of the Fijian minimum wage,

do not employ a full complement of Fijians as crew and are not necessarily complying with local health and safety legislation. All of these elements reduce the benefits generated by the tuna fishery that are retained by the domestic economy.

The system of permitting local landings of fish and transshipment for export also has several adverse effects. The duty free transshipment of fresh tuna for export has encouraged increased landings of tuna caught outside Fijian waters because of the quality of air links in Nadi. This has intensified the pressure on locally based exporters for the limited airfreight capacity available as well as reducing the average value of Fijian tuna exports as quality has declined. In addition, few checks are made on the origin and legality of transhipped tuna landed by offshore vessels. Landings of by-product fish by footloose vessels are also swamping the local market, even after duty is paid and aided by the fuel tax concession, with adverse implications for local fishing firms and small-scale fishermen. This policy is out of line with general practice in the region, which places restrictions on local landings and transshipment to protect the local market. Any recovery of local tuna catches in the future may encounter a hard constraint on airfreight capacity that limits the volume of fresh tuna exports.

The Samoan Tuna Fishery

The commercial fishing sector makes a critical contribution to the Samoan economy. Total exports in 2002 of fresh and frozen fish, primarily tuna, were worth some \$T 29 million (around \$US 10.4 million) and accounted for 63 per cent of Samoa's total visible exports (*Central Bank of Samoa Bulletin*, 2003) – excluding the activities of Yazaki Samoa, which are not published. As of 2000, there were some 160 fishing vessels of all sizes active in Samoan waters. The Samoan Government's Fisheries Management Plan however, drawn up in accordance with the MHLCA and the Western and Central Pacific Fisheries Convention, significantly reduced this number. The objective of the plan was to participate in the regional management of the Pacific tuna stock and ensure the sustainability of the Samoan fishery.

The Operation of the Samoan Tuna Fishery

Samoa is only able to support a limited number of vessels because of its small EEZ – 124 000 km² (compared with Fiji's 370 000 km²). There are currently some 60 commercial vessels fishing under licence in Samoan waters. Most of the commercial fishing ventures in Samoa were originally set up to catch albacore tuna for the canneries in nearby Pago Pago, American Samoa. Although albacore tuna continues to be the principal catch, many firms diversified into higher-value fresh big-eye and yellowfin tuna for export to the United States.

There has been a general fall in tuna catches and fish size in Samoan waters in recent years. Both the Samoan Fisheries Department and the industry ascribe this drop to the impact of the 1998 El Niño rather than to over-fishing or poaching. The El Niño is said to have affected the spawning of the current cohort of mature tuna in the Western Pacific, so reducing their number and size, while leaving the Eastern Pacific unaffected.

The Regulation of the Samoan Tuna Fishery

The fisheries sector in Samoa is regarded as having reached 'full capacity' and, as such, is classified as a restricted sector. Although the government would prefer to make fishing a completely reserved sector and so exclude all foreign participation, this is constrained by the scarcity of local investment capital. The 2000 Fisheries Management Plan set the maximum foreign ownership share at 40 per cent, but

Class of vessel	Total number of licences available	Cost of licence (\$T per annum)
A (<11 m)	No limit	200
B (11–12.5 m)	19	1 000
C (12.5–15 m)	21	2 500
D (15–20 m)	16	10 000
E (>20 m)	9	15 000

Table 1. Number and cost of fishing licences in Samoa

Source: Fisheries Department, Ministry of Agriculture, Fisheries, Forestry and Meteorology, Apia, Samoa.

this was lowered to 25 per cent in 2003 and may be reduced further in the near future. The restrictions on foreign ownership have led to a restructuring of vessel and firm ownership in the industry. The plan also introduced licence fees by class (size) of vessel and designated upper limits on the number of licences that could be allocated for each class (shown in Table 1). Samoa has strictly adhered to these limits.

Samoa has adopted a stakeholder approach to the management of its fisheries sector. The Fisheries Management Plan formally established a Committee for Fisheries Management (CFMag) as a forum for government–industry liaison. CFMag is responsible for running the industry and consultation on key issues, including setting the total number of licences available. The allocation criteria for fishing licences as well as conservation policy and action on poaching, however, remain the responsibility of the government via the Fisheries Department. CFMag is also playing an important role in improving quality as well as health and safety standards in the fishing industry in accord with the EU HACCP (Hazard Analysis and Critical Control Point) requirements.

Foreign vessels are permitted to land their fish in Samoa, subject to local customs duties and regulations, and to export or tranship free of duty. Samoa is actively encouraging vessels to make local landings of tuna caught outside its waters so as to utilize the limited airfreight capacity of the air link at Faleolo to Los Angeles and Tokyo via Auckland.

Critical Issues in the Samoan Tuna Fishery

The Samoan tuna fishery is experiencing similar problems to Fiji in terms of falling catches and declining fish sizes. The general consensus in Samoa, however, is that these problems are temporary rather than indicative of a permanent decline in fish stocks as a result of over-fishing and poaching. The migratory nature of tuna stocks means that these apparently contradictory explanations may be in fact be consistent.

Fisheries Management in Samoa

The stakeholder approach adopted by Samoa is in stark contrast to the *ad hoc* system of discretionary consultation in Fiji. Formalized liaison between government and industry through CFMag has resulted in a management system that is reliant upon consensus, and promotes conservation and the long-term sustainability of tuna. Samoa's fishery licence allocation system has very simple and clear criteria, including ownership and health and safety requirements, is highly transparent and is enforced rigorously. The Samoan stakeholder system emphasizes the key role of government–industry co-operation to ensure the sustainable use of the national tuna fishery.

The Size of the Samoan Fishery

A particular problem in the Samoan tuna fishery relates to the size of the EEZ, the number of vessels it can support and the structure of costs in the sector. The presence of economies of scale in many productive activities is recognized as a major barrier impeding the competitiveness of small states (see, for example, Armstrong and Read, 1998a). In the case of the Samoan tuna fishery, scale economies impinge in several important ways that are not in evidence in Fiji. The Samoan fishing companies are generally quite small as are the tuna vessels, partly reflecting the reserved nature of the sector and the limited availability of local capital. Scale economies are also present in onshore support services, including marine engineering and processing facilities. The solution has been inter-firm co-operation, partly via management contracts, so that most firms share access to the major onshore facilities located in Apia. In addition, the government is encouraging the landing of tuna caught in the waters of the nearby Cook Islands and Niue that lack their own onshore facilities. These actions resolve many of the cost problems posed by scale economies but gives rise to concerns about the dominance of monopolistic firms in small states (see Armstrong and Read, 1998b).

Remoteness and Transportation Links

Samoa is relatively remote from its major markets for fresh tuna in Japan and the United States. It is served by limited air links, the most important being the flights to Auckland with connections for Tokyo and Los Angeles. Surprisingly, there are few integrated transport links with American Samoa, which has subsidized links to Hawai'i and continental United States. The survival of the Samoan tuna fishery is partly dependent upon the continued availability of reliable airfreight capacity for exporting fresh fish. The recent downturn in global air travel has led airlines to rationalize their routes and plane configurations; remote island stopovers, such as Samoa, are particularly vulnerable to this retrenchment.

Conclusions: Institutions, Governance and the Sustainability of the Fijian and Samoan Tuna Fisheries

This paper has considered the sustainability of the Western Pacific tuna fishery in the context of regional and national attempts to introduce effective sustainable management policies. The Multilateral High-Level Consultations (MHLCS) that took place in the late 1990s ultimately paved the way for the September 2000 Western and Central Pacific Fishery Convention. The long-term sustainability of the tuna fishery, however, depends upon the willingness of national governments to implement and enforce such multilateral policies. The future sustainability of the tuna fishery in Fiji is under considerable pressure as a consequence of declining catches and exports, possible over-fishing and irregularities in the allocation of licences and regulatory enforcement. Samoa's tuna fishery long-term sustainability is under pressure from two separate sources. The first is whether the current fall in tuna catches is a temporary phenomenon caused by the El Niño or indicates a more permanent decline in Western Pacific fish stocks. The tuna-fishing sector is operating at a capacity specifically designed to ensure its long-term sustainability, aided by entry restrictions, licence quotas and a transparent licence allocation process. Key policy initiatives are generally the outcome of consultations under the CFMag stakeholder system. Second, economic viability is dependent upon its cost competitiveness and continued access to regular air links. Any large fall in local tuna landings, as opposed to catches in Samoan waters, will raise the unit costs of using onshore facilities and therefore squeeze industry margins.

The comparative discussion and analysis of the regulation of the Fijian and Samoan tuna fisheries highlights important differences in their interpretation, implementation and enforcement of sustainable exploitation policies. The governments of both Fiji and Samoa acknowledge the critical importance of managing the Pacific tuna fishery in a sustainable manner, particularly given its contribution to their respective economies. Key elements of the regional Fishery Convention have been incorporated into national law, resulting in improved management, monitoring and enforcement. Nevertheless, there are significant differences in the effectiveness of the sustainable management policies of Fiji and Samoa.

The Samoan government has made a serious attempt to manage its tuna fishery in a sustainable manner in accord with the recommendations of MHLC4 and the Fishery Convention. This has been undertaken through its Fisheries Management Plan, which provides clear and transparent sustainable management objectives supported by a formal government–industry consultation mechanism (CFMag). In so doing, Samoa has acted to manage the critical variables that are within its policy control, including promoting good governance practices that have eliminated many opportunities and incentives for rent-seeking behaviour. The long-term sustainability of the sector, however, remains dependent upon exogenous factors, primarily the buoyancy of Pacific tuna stocks but also the continued competitiveness of local fishing firms and access to regular air links to its major markets for fresh tuna.

Fiji is also committed to ensuring the long-term sustainability of its tuna fishery in accord with MHLC4 and the Fishery Convention. The extent to which these policies have been implemented and enforced effectively, however, is open to serious question owing to poor levels of local governance and inconsistent national economic policies. The primary problem is that the Fijian licensing system is susceptible to rent-seeking behaviour and corruption, aided by a lack of transparency in the allocation criteria and the use of discretion. This resulted in the number of active tuna licences in 2003 exceeding the threshold set by the Fijian Cabinet. Further, there has been an apparent failure to enforce national legislation on minimum wages, indigenous crew requirements and health and safety legislation. The situation has been compounded by the structure of taxation and duties, which penalize onshore operators, both local and foreign. The overall impact has therefore been to discriminate in favour of offshore at the expense of onshore fishing vessels. This has undermined Fiji's commitment to the sustainable management of its tuna fishery as well as reducing the potential contribution of the sector to the local economy via employment and other direct and indirect linkage effects.

The differential effectiveness of sustainable tuna fishery management policies in Fiji and Samoa demonstrate the potential weaknesses in implementing and enforcing regional multilateral agreements at the national level. Further, it emphasizes the critical role of good governance practices in ensuring the compliance of commercial interests with sustainable development objectives. The economic importance of tuna to Samoa may be argued to have ensured good governance practices; this is not supported by the case of Fiji. Social cohesion and good governance are cited as key strengths of small states, yet the comparative analysis of the sustainable management of the tuna fisheries in Fiji and Samoa demonstrates that small size in itself is no guarantee of eliminating opportunistic and rent-seeking behaviour.

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