

Institutional Capacity in Fisheries

Legislation and Regulations

General

The fisheries sector was the subject of several recent reviews⁵⁷ that profiled the resource base, assessed the institutional capacity of the Government, and presented suggestions to develop fishing activity in Vanuatu. The reviews acknowledged that while there are constraints, Vanuatu's waters could sustain increased fishing effort. A weakness in the regulatory framework is the absence of a policy document explaining the Government's philosophy and aspirations for the sector and its strategy for managing development. Apart from brief statements in the Third National Development Plan, produced more than 10 years ago, about maximizing development and promoting rational exploitation, there is no recent policy statement for fisheries.⁵⁸ Fisheries legislation has been amended on several occasions, but it was introduced in 1982 and is outdated.⁵⁹

The Review Team identified a number of current issues associated with fishing activity that are in urgent need of attention. These include the activities and regulation of vessels registered under the Vanuatu flag and the export of endangered species. As these issues are not central to this review, they are discussed in Appendix 7.

In addition to a large amount of domestic legislation that is relevant to the fisheries sector, including the Maritime Zones Act (1981),⁶⁰ Vanuatu is also party to important regional and international agreements and treaties including the United Nations Convention on the Law of the Sea (UNCLOS)⁶¹ and the Convention on International Trade in Endangered Species (CITES). Vanuatu is also a member of the Inter-American Tropical Tuna Commission (IATTC) and aspires to membership in the Convention for the Conservation of Antarctic Living Marine Resources (CCALMR). It is active in the

⁵⁷ Swan (1992), Nichols (1996), Preston (1996), Kailola (1996), Wright (1989), Palfreman and Stride (1996), Kingston et al. (1996)

⁵⁸ A draft fisheries policy document was prepared for Vanuatu under an FAO Technical Assistance Program in 1996 (Preston 1996).

⁵⁹ Fisheries legislation has been reviewed twice, in Swan (1992) and Amoa (1993).

⁶⁰ The Maritime Zones Act (1981) established Vanuatu's internal waters, archipelagic waters, territorial waters, contiguous zone, and exclusive economic zone (EEZ). At present, the EEZ encompasses an area of about 710,000 sq km. Should the dispute with France over the islands of Mathew and Hunter be resolved in Vanuatu's favor, Vanuatu's EEZ will increase by an additional 30 percent.

⁶¹ UNCLOS has provisions for marine scientific research—an issue that has caused concern in Vanuatu in the past when visiting researchers reportedly did not adequately involve Ni-Vanuatu fisheries biologists in their work or provide Vanuatu with reports on their findings.

work of South Pacific regional organizations such as the Forum Fisheries Agency (FFA), the South Pacific Commission (SPC), and the South Pacific Regional Environment Programme (SPREP). With respect to the international and regional fisheries arrangements that Vanuatu is party to, legislation relating to the international ships registry, such as the Vanuatu Maritime Authority Act Cap 29 (1998) and the Maritime Act Cap 131, must be reviewed together with the Fisheries Act to ensure compatibility.

Fisheries legislation does not accommodate a large number of regional and international initiatives relating to the management of foreign fishing effort within Vanuatu's EEZ and conservation of marine resources. However, Fisheries (Amendment) Act No. 2 (1989) does provide the Minister and the Director with broad discretionary power to manage the country's fish stocks. The Act gives the Minister broad authority to decide on licensing conditions, grant exemptions, and implement fisheries conservation and management arrangements.

To date, no fishery in Vanuatu has operated under a formal management plan, although the Act does contain basic provisions for the protection of marine mammals and the prohibition of destructive fishing practices. In addition, the 1983 and 1986 regulations include licensing requirements for various categories of fishing vessels, conditions to operate a fish processing establishment, and specific conservation measures for selected species.

The Constitution,⁶² the Land Reform Act (Cap 123),⁶³ the Decentralization and Local Government Act (1994),⁶⁴ and various business laws (Chapter 173)⁶⁵ all have implications for the fisheries sector. Any review of fisheries legislation should ensure the removal of any ambiguity and inconsistency and the alignment of domestic legislation with international practice.

⁶²The Constitution (Chapter 12, Article 71) ascribes "all land in the Republic as belonging to the indigenous custom owners and their descendants." As a result, land in Vanuatu can only be leased by its customary owners, not sold.

⁶³The Land Reform Act defines land as "extending from the seaside of any foreshore or reef but no further."

⁶⁴The Decentralization and Local Government Act (1994) gives broad administrative powers, including the authority to enact by-laws affecting marine resource use, to the six provinces. Shefa province has "formally" adopted by-laws, provided in draft form by the Fisheries Division, and without revision. Formal approval from the State Law Office has not been received for this by-law and it has not been gazetted.

⁶⁵The Minister for Finance administers business law in Vanuatu. In relation to fisheries, under these laws the Minister can reserve certain business activities for Ni-Vanuatu only. Further, Schedule 2 of the business license law exempts fishers from requiring a business license although game-fishing operators require two licenses issued through the tourism office, not the Fisheries Division.

There are several possible sources of assistance for a legislative review so it is not the actual physical review that causes problems for Vanuatu. The formal adoption of revised legislation presents the most difficulties. Unless there is sustained commitment that secures the cooperation of counterpart Government agencies, such as the State Law Office, any legislative review in Vanuatu runs the risk of not being implemented.⁶⁶

The lack of a policy and a poorly developed regulatory framework are major constraints on development. A good example concerns the role of provincial governments, which, as a result of being granted administrative control over an area extending up to 6 nautical miles from shore, have become more actively involved in administering fishing activity in that zone. Although there is no apparent basis in Vanuatu law for this derogation, the current confusion in relation to the respective responsibilities of provincial governments and the Fisheries Division for fisheries in this zone is cause for major concern.

The apparent gradual erosion of the Fisheries Division's authority makes the relationship between national and provincial authorities on coastal fisheries one of the most pressing issues in the sector. In addition to the difficulties that arise with provincial governments, it is reported that the Foreign Investment Board (FIB) rarely consults the Fisheries Division when appraising fisheries investment proposals. Unless this issue is addressed soon, the situation will deteriorate to a level from which it will be extremely difficult to recover.

Offshore fisheries

The Government negotiated an agreement with the Kaoshiung Fishermen's Association (KFA), which began in 1989. The agreement allows Taiwanese vessels to fish for tuna in Vanuatu's EEZ. Annual license fees of US\$5,000 per vessel, regardless of catch, were established under the agreement. These fees are subject to annual review, but have not been raised since the start of the agreement. Under the terms of access, vessels are required to provide catch data on a timely basis. The agreement has been criticized as being deficient in monetary as well as in compliance terms. Nevertheless, in the 11 years it has operated, gaining the required support for its review or renegotiation has proven impossible. There are a number of areas of concern.

⁶⁶The Fisheries Division included a review of the legislation in its 2000 work program. The Forum Fisheries Agency will undertake the review. The chances of the new fisheries bill actually being formally adopted will be improved by appointing a lawyer from the State Law Office as a counterpart for the work.

First, the real (inflation-adjusted) value of the individual vessel payment was 45 percent lower in 2000 than in 1989, when the agreement began. Second, the Fisheries Division has been unable to enforce the terms of access with the longline fleet as a whole, not just the Taiwanese component, in relation to the timely submission of catch data, as provided for in each access agreement.⁶⁷ As a result, the Division has little knowledge of the dynamics of the fishery, catch rates, and the value of the catch relative to fees paid. Third, the KFA agreement does not include many of the Minimum Terms and Conditions for Access by Foreign Fishing Vessels (MTCs).

Many FFA member countries have revised their fisheries legislation to incorporate the MTCs. This effectively removes negotiations about MTCs from access negotiations. The 1989 fisheries legislation was the subject of a major review in 1992 with a view to incorporating MTCs and other accepted regional and international practices. Since then, other reviewers have supported the urgent need for new fisheries legislation. Now that new regionally adopted fisheries management tools are operational, this has become a high-priority task. In addition to the MTCs, procedures associated with Vessel Monitoring Systems (VMS), for example, need to be enshrined in national legislation to maximize their effect as a valuable tool for Vanuatu fisheries administrators.

More recent licensing agreements, for example, those with the Tuna Pacific Agency and CKP Fishing Company for vessels operating out of Fiji, are a significant improvement on the 1989 agreement. Nevertheless, apart from the telex reporting requirements, almost all vessels licensed to enter Vanuatu still blatantly ignore the data submission obligations of their access agreements.

As of April 2000, 14 KFA vessels were licensed, having paid total fees of US\$70,000. Although not a large sum, this represented 31 percent of the Division's 2000 budget. Without alternative sources of income, the Division is hesitant to risk these funds by insisting on renegotiations. In any case, lack of data places officials in a weak negotiating position as they do not know the value derived by fishers from the existing arrangements and the extent to which payments could be raised.

Inshore fisheries

The development of commercial fisheries, targeting resources that are important subsistence fisheries, requires careful consideration. Although

⁶⁷Telex reporting, entry and departure reports, and weekly reports appear to have achieved a reasonable level of compliance.

there are few cases of reef fish stocks in the South Pacific being depleted or overexploited,⁶⁸ fisheries officials in Vanuatu maintain that there is strong evidence of overexploitation in the local *bêche-de-mer* and trochus fishery. While *bêche-de-mer* is not consumed in Vanuatu, the meat from the trochus shell is. Even small-scale rural fishing can adversely affect some marine fish stocks. With a limit on the resources rural communities can tap for cash needs, and with rising commercial demand, local communities could quickly devastate rebuilt trochus stocks unless adequate harvesting regulations are applied.

The Division is completing a trochus hatchery project for reseed-ing depleted reefs and enhancing existing reef populations. The Australian Center for International Agricultural Research (ACIAR) has provided funding for the project. Although Division staff have mastered techniques to routinely rear trochus, the Division lacks the budget to extend the results of this program to seed reefs in the provinces. However, even if there is a successful trochus or clam enhancement program in rural areas, stocks will not rebuild unless a regulatory mechanism is put in place to manage harvesting and to prevent overexploitation.

Two encouraging developments in Vanuatu suggest that, at least in some locations, it may be possible to replenish local trochus stocks and subsequently establish sustainable small-scale fisheries. A shell processor in Port Vila has expressed interest in providing some financial support to the hatchery work at the Division.⁶⁹

Moreover, customary conservation and management practices in relation to near-shore resources are experiencing resurgence in many parts of the country. Although such practices are often challenged by rising commercial demand, they could remove many of the difficulties of the Fisheries Division in managing fisheries from Port Vila with limited staff and financial resources. It is also important for the resource to be managed more actively by the communities that are its ultimate beneficiaries. Successfully integrating the interests of the industry, the shell processors, the Fisheries Division, and the community would not only lead to sustainable trochus fisheries but also serve as a relatively efficient approach to managing other coastal resources.

⁶⁸ Some Samoan, Papua New Guinea, Solomon Islands, and Kiribati reefs close to urban centers are the most notable examples.

⁶⁹ The proposal by Hong Shell to collaborate with the Fisheries Division on the hatchery rearing of trochus should be pursued. Because of the superior shell quality, Hong Shell is principally interested in accessing 6 cm trochus reared and raised in a hatchery. The Fisheries Division is principally interested in seeding local reefs. Depending on the establishment of a suitably sized hatchery, it should be possible to negotiate an arrangement that serves the interests of both parties.

While some small-scale coastal fisheries may be successfully managed with minimal input from the Fisheries Division, other fisheries will require considerable oversight as exploitation levels increase. The fishery for deepwater snapper is a case in point. The poulet fishery in Vanuatu has not reached the harvest levels envisaged under several relatively large development assistance programs in the 1980s. However, anecdotal evidence of sales from retail outlets in Port Vila and Luganville suggests that the level of exploitation is greater than generally assumed.⁷⁰ Several reviews have concluded that production from this fishery increases significantly only in a subsidized situation—usually involving foreign aid.⁷¹ However, the volume of local sales would suggest that even without Government incentives to develop the fishery, the level of production would still be moderate. The estimated maximum sustainable yield for this resource, nationwide, is between 113 and 300 tons a year.⁷²

There is some interest in developing the capacity to regularly export poulet. However, the development of this deepwater snapper fishery is constrained by lack of ice in rural areas, high cost and unreliable airfreight, and a lack of access to credit among small-scale fishers. In addition, gaining access to duty-free fuel has increasingly become a problem for vessel operators.⁷³

In an attempt to address challenges associated with developing the poulet fishery, the Fisheries Division planned to make a final effort in 2000 to develop a mechanism for generating a regular supply of fish from rural communities. With funding supplied through Vanuatu's share of payments from the Treaty on Fisheries, the Division will place ice-making facilities at two rural locations. A locally organized rural fishermen's association will manage the fisheries centers with the support of the private sector in logistics and transport, and with Fisheries Division oversight.⁷⁴ Fuel distribution and train-

⁷⁰ Anecdotal information suggests that the four main retail outlets for fresh fish sell around 350 kg of fresh fish daily in Port Vila. There are only two fresh-fish outlets in Luganville. These sell about 60 kg a day—when they can get supply. Deepwater species account for about 70 percent of sales.

⁷¹ See Preston (1996) and Palfreman and Stride (1996), for example.

⁷² Polovina et al. (1990)

⁷³ In early 2000, commercial fishing operations were delayed for a considerable period while Customs considered applications for duty-free fuel. The designated Customs officer was reportedly out of the office, attending an important regional meeting, and no one had been designated to act in his place. Customs officials also reportedly suspect some fishermen of abusing the privilege of accessing duty-free fuel, in the absence of sufficient controls to ensure compliance with the guidelines. This matter urgently needs improved consultation between the Fisheries Division and Customs.

⁷⁴ Under previous management arrangements for ice-making facilities, all their revenue was paid back into Government consolidated revenue. As a result, the facilities never had funds for maintenance and repair. The new plants are proposed for Tafae province and the Shepards in Shefa province.

ing will be centralized at the centers in an attempt to improve monitoring and extension services. Despite widespread skepticism, making the primary beneficiaries responsible for the success of these centers could give them greater incentive to make the centers work.

Government and aid-supported programs providing physical assets such as ice machines or boats to promote fisheries development in rural areas, have noble objectives but are often misguided. They could help develop subsidized activity that is uneconomic, wasting both the fishery resource and the other productive inputs required in the fishing operation. Moreover, without the technical expertise to maintain equipment and the commercial expertise to manage small businesses, rural fishery production will remain below its potential. With sources of foreign aid and Government funds contracting, large development initiatives in rural areas should be left to the private sector. The Division still has a role in rural areas, but it should withdraw from projects that rely on the subsidized provision of capital assets.

Although aquarium-life export now has only three operators, it is a developing fishery and the resource must be managed to prevent overexploitation. Apart from potential conflict in the actual fishing areas, involving customary resource owners as well as competing collectors, indiscriminate collection practices by some collectors have been reported. In addition, collectors reportedly encourage village groups to collect wild giant clam from local reefs and transport them live to Port Vila for sale. On some occasions, many of the clams have died as a result of being detached indiscriminately from the reef. Collectors generally purchase only colorful clams; the remainder either remain in the holding tanks at the Fisheries Division to be used in the larval rearing program or are discarded.

If correctly managed, game fishing would appear to have potential in Vanuatu. However, the game-fishing sector also has several contentious issues. At present, the Tourism Office, not the Fisheries Division, licenses game-fishing vessels. Small-scale fishermen criticize some of these of selling their catch to hotels and restaurants in Port Vila, particularly during the low season for tourists, thus periodically oversupplying the main markets for small-scale fishermen. There are also complaints that game-fishing boats in Vanuatu do not practice tag-and-release on a scale that would normally be expected of game-fishing operators.

Even at today's relatively low level of activity, contentious issues besetting the inshore sector require immediate attention. One highly contentious issue is the role of provincial governments in adminis-

tering fisheries within 6 nautical miles. In many instances the arrangement is generating conflict—not only between fishermen but also with respect to the roles of national and provincial authorities.⁷⁵ The national Government is not likely to reestablish authority over this coastal area without major challenges.

One way to resolve this issue could be to revise fisheries legislation such that certain fisheries are declared to be “in the national interest,” to be administered and regulated only by national authorities. Aquarium-life, deepwater snapper, trochus, green snail, and bêche-de-mer fisheries should be among these fisheries. While provincial authorities may be consulted during the preparation of management plans for these fisheries, responsibility for their administration and management should rest with the Fisheries Division.

Management Capacity of the Fisheries Division

Two institutions are involved in the fisheries sector in Vanuatu, the Fisheries Division and the Vanuatu Maritime College (VMC).⁷⁶ The Division has primary responsibility for fisheries administration and management. The VMC has traditionally trained seamen but, so many believe, could be involved in training small-scale local fishermen as well.

The Fisheries Division had an approved budget of Vt29 million in 2000—the same amount for the past three years.⁷⁷ This represented 4 percent of the MAQFF budget. Externally funded projects are prominent elsewhere in the MAQFF, but in the Fisheries Division they amounted to only 1 percent of aid to the fisheries sector. As 71 percent of the Division’s budget is committed to salaries and entitlements, relatively little remained for projects.

The Division in 2000 was expected to generate revenue of Vt35 million, coming principally from fisheries treaties that allow foreign vessels access to the EEZ of Vanuatu, from licensing and enforcement, and from boatyard activities.

⁷⁵ There are numerous allegations of graft and corruption in provincial licensing. Moreover, the Fisheries Division is hardly ever consulted on fisheries matters by the Foreign Investment Board except when a provincial operator approaches the Division for an export license.

⁷⁶ VMC is the result of an amalgamation, in 1998/1999, of the Marine Training School run by Ports and Marine in Port Vila and the Fisheries Division’s Fisheries Training Center at Luganville. VMC is a limited guaranteed company owned by the Government. The Director of Fisheries is Chairman of the VMC Board. The VMC shares a site at Luganville with the Fisheries Division.

⁷⁷ In addition, the Police Maritime Wing allocates about Vt250 million each year to the support of the *RVS Tukoro*’s EEZ surveillance activities, which include fisheries surveillance, and the operation of the national operations center. Australia’s Defense Cooperation Program provides the majority of the funding required to operate the *RVS Tukoro*, with the objective of providing 1,200 hours of maritime surveillance annually.

Programs and activities

The Division is organized into four programs: resource assessment, management, computers, and information; rural fisheries development; administration; and the Santo boatyard. Resource management and assessment activities include licensing and surveillance, inspection and enforcement, data collection and analysis, stock assessment and management, and the trochus reseeded project. These are all core activities of a fisheries division, yet the allocated budget is only Vt13.4 million, or less than half of the Division's budget.

A similar amount is allocated to rural fisheries development, a program that includes several noncore activities. This program provides technical advice on project management, fish preservation and marketing, duty exemptions on fuel, safety, and data collection to small-scale fishing projects. These activities could be regarded as part of a core activity extension program. However, the Community-Based Fishing Project is going further in its assistance and proposing the establishment of ice-making units in each of the provinces. A similar scheme was tried in the past but failed dismally.

The Santo boatyard builds and repairs boats of different sizes for fishing and other purposes and, when required, makes fishing reels and oars for fishermen and other private individuals. The boatyard has had limited activity for some years. Boat building and repair are noncore activities that, under CRP principles, should be performed by the private sector.

Evaluation of performance

The Fisheries Division is in an increasingly tenuous position, with decreasing staff numbers and increasing pressure on limited financial resources. While it maintains good programs such as the hatchery rearing of shell (trochus and giant clam), its programs in rural areas are weak. The Division must be strengthened so that it can engage others more adequately in constructive dialogue on all issues associated with the development and management of the sector.

The reasons for the weakness in the Fisheries Division are common to the public service as a whole. Problems associated with a generally weak staff complement in the mid-1990s were compounded by the CRP rightsizing exercise, which further decreased employees in the public service. In the Fisheries Division, rightsizing reduced the staff ceiling by 29 percent, from 35 positions to 27. The staff size actually shrank by 44 percent as employees elected to accept redundancy offers. In April 2000, the Fisheries Division had only 15 employees to perform its activities nationwide. If no major strengthen-

ing of the Division's resources occurs, it will be extremely difficult for the fisheries sector to develop in a manner that is sustainable and that maximizes benefits to the community.

The Review Team conducted a SWOT (strengths, weakness, opportunities, and threats) analysis with Fisheries Division staff in Port Vila. This analysis provided useful insights into the constraints on the capacity of the Division to undertake its core as well as noncore functions. The results of the analysis are summarized in Appendix 9.

Fisheries Division staff indicated that the Division never recovered from the 1993 strike by public servants. Competent staff who left at that time never returned to the Division. Similar reasons were cited for the gradual loss of support for the Division in the public service as a whole: competent staff in other divisions who understood the work of the Fisheries Division have also left. The approval of the 2000 budget in late March significantly reduced the possibility of recruiting for some of the vacant positions during the year.

Both within the Division and elsewhere in the Government, considerable weight is attached to the Division's capacity to raise revenue. But various factors do not augur well for its financial security: falling fisheries exports, decreasing income from the licensing of foreign longliners as fleet sizes gradually decrease in size, and the fact that most of the Division's revenue comes from Vanuatu's participation in the Treaty on Fisheries. The pressure to raise revenue, from so few sources, constrains the Division's ability to initiate a review of the bilateral agreement with KFA.⁷⁸

While many current activities correctly address the principal functions of the Division, improved program design, together with a more practical corporate plan aimed at making the best use of available resources, could produce considerable gains in efficiency. The efficiency and performance of the Division, particularly in its relations with other Government ministries and agencies, and in information management and data processing, must be substantially improved.

To be effective in carrying out its responsibilities, the Division should collaborate with other offices such as the State Law Office, the Environment Unit, the Police Maritime Wing, Foreign Affairs, the Public Prosecutor's Office, the Foreign Investment Board, Customs, the Vanuatu Maritime Authority, and Home Affairs and De-

⁷⁸The Fisheries Division expected to generate revenue of about Vt35 million in 2000. Treaty on Fisheries payments would compose just under 50 percent of the total, the sale of data books and duty exemption forms would raise Vt100,000, the boatyard about Vt10 million, and the licensing section about Vt8.34 million.

centralization and Local Government Councils. Except where personal friendships exist, interoffice coordination is generally weak.

Of particular concern is the apparent lack of collaboration between the FIB and the Fisheries Division on fisheries investments. The FIB rarely informs the Division about fisheries proposals submitted to the Board and never calls upon the Division for technical advice when considering investment proposals. Similarly, the Environment Unit is never involved in FIB appraisal processes. This is a serious oversight which the MAQFF should urge the FIB to correct.

Collecting fisheries data and information for broad circulation to all interested stakeholders should be a core function of the Division. But while it routinely compiles data for the principal fisheries resources and presents these in annual reports, the accuracy of that information is openly questioned by many.

Budgetary and staff cuts have adversely affected rural fisheries extension, training, and marketing programs. The research and mariculture program, building on the technical skills of the staff, appears to be relatively productive, but apart from occasional surveys for shell or *bêche-de-mer* resources, stock assessment activities are extremely limited. Unless more staff are assigned to the rural areas, the relations between the Fisheries Division and the rural communities, which have traditionally been good, could suffer.

Moreover, the current staff of 15 is too small to regulate the fisheries sector, facilitate its development, and implement the recommendations of this review. Although it is not the function of this review to propose a new, expanded staff structure that more adequately serves fisheries development and management needs, reorganizing the Division into the broad areas of responsibility outlined in Table 4 below may be beneficial. Naturally, in policy development and fishery management planning, there should be broad cooperation throughout the Division, coordinated by its management.

Reorganizing the Division into clear areas of responsibility meets only part of the challenge to establish its competence to manage Vanuatu's fisheries resources. While there is some justification for adding more staff, the professional capacity of the Division also requires attention. Any reorganization and restructuring must deal with deficiencies in many critical areas including manpower needs assessment, staff development, office administration, organization and management, data analysis and interpretation, resource management, and public relations.

Remaining staff are technically competent but, according to the SWOT analysis in which they took part (see Appendix 9), they think

Table 4: Proposed Activities of the Reorganized Fisheries Division

Administration	Information Services	Technical Services	Monitoring, Control and Surveillance	Research and Management
• Budgets	• Library	• Public relations	• Market intelligence	• Aquaculture advice
• Accounts	• Data holdings	• Extension	• Surveillance	• Mariculture
• Financial reporting	• Communication networks	• Provincial liaison	• Monitoring	• Surveys
	• Newsletter	• Technical advice	• Regulation	• Data analysis and reporting
	• Monthly and annual reports	• Investment appraisal	• Legislation	• Fisheries assessment
		• VMC liaison	• Control	• Economic advice
		• Fishing Industry Association liaison	• EEZ affairs	• Management plans
			• Export processing, food safety	
			• Observer program	
			• Offshore Steering Committee	

their performance could improve significantly. Key among their concerns is what they consider to be inadequate compensation⁷⁹ for the work expected of them. While they respect the current Director for his loyalty and dedication to them and to the principles of the Division, they say that improved organization, better planning, and greater professional accountability would lead to improved work performance. Staff in the provinces also point to the need for improvement in communications between Port Vila and outstations on general and technical matters. In addition, while it is to be lauded for the regular production of an annual report, the Division shows obvious weakness in the handling of fisheries data and the quality of its analysis.⁸⁰

Compounding the funding difficulties was the absence of funding in the 2000 budget for the Santo boatyard, which had received recurrent budgetary support of Vt9 million in the three previous years.⁸¹ The fate of the boatyard is tenuous unless the Division can secure funding. The Department of Finance has reportedly told the Fisheries Division that it must support the boatyard out of savings from its budget allocation of Vt29 million.

⁷⁹ In terms of salary and housing benefits.

⁸⁰ All the observations noted here basically reaffirm the findings of previous reviews; see Preston (1996), Kingston et al. (1996), and Nichols (1996).

⁸¹ The boatyard has been essentially self-sufficient since 1985, surviving on what is termed the revolving fund, a petty cash account that was abolished at the end of 1999.

Several options for the boatyard's future would improve on the current state of affairs. One would be to transfer the boatyard to the VMC, but only with an assurance from the latter that the boatyard would continue to provide services to rural fishermen. The boatyard would thus have the long-term security it now lacks; VMC would gain an excellent facility for teaching boat building; and local requirements for small-vessel construction and repair would still be met. But the boatyard should operate on commercial terms, with no subsidy. The workshop, too, should continue to serve the needs of rural fishermen. It is incongruous to have local fishermen complaining about the lack of a servicing facility for their motors while this well-provisioned facility has stood idle for more than a year.

A second option is to privatize the boatyard, with the owners providing training on a contractual basis with the VMC. The boatyard has proven in the past to be a reasonably viable enterprise. It is therefore a candidate for privatization or lease to a private operator if the Government wishes to continue owning it. This would provide greater incentives for efficient operations. Should the boatyard be required to meet community service obligations, the Government should fund the associated costs.

The transfer of the boatyard to the VMC is the preferred option because, at this stage in the development of the sector, Vanuatu is seriously in need of suitable training facilities. Under VMC management, given the performance of the facility since 1985, it should be possible to run the facility profitably, while at the same time addressing critical training needs. A drawback with this approach is that a Government-owned boatyard could compete unfairly with private boat builders and repairers, and could prevent the development of a private boat building and repair industry.

The transfer of the boatyard and the workshop from the Division would reduce its activities, apart from administration, to two program areas. The activities of Program A would include research, mariculture, monitoring, control and surveillance (MCS), and information management; the rural development activities of Program B would be focused on extension services to the provinces.

The fisheries sector can expect to receive improved service and benefit from the VMC. Although the College's primary focus is on providing seamen for local and foreign fishing and cargo vessels, with the Director of Fisheries as the Chairman of the VMC Board, it should be possible to ensure the fisheries training requirements are largely satisfied through programs offered at the VMC.

However, the transfer of the fisheries training center to the VMA by the Fisheries Division troubles some Fisheries staff. They are concerned that the assets of the Division are being pulled out from under them and that the Division's capacity, particularly in relation to rural programs, is slowly being subsumed by the VMC. While such a perception persists, the VMC facility will not be able to approach its potential in terms of contributing to fisheries development. It is in the national interest to see to it that this potential be achieved and so all concerned parties should make every effort to collaborate in rural fisheries development.

There is considerable potential benefit from developing a close relationship between the Fisheries Division and the VMC. VMC staff should develop constructive consultative arrangements with Fisheries Division staff based in Luganville. The activities at the VMC in which Fisheries staff should be automatically involved include: developing strategies and programs for rural training; providing input to course content for fisheries curriculums at the VMC; assisting in identifying the training needs of fishing enterprises; and participating with VMC staff in training programs.

The VMC should appoint counterpart Ni-Vanuatu staff to all expatriate-occupied positions, although budget limitations may affect the pace at which that can be achieved. Under the direction of the Chief Executive Officer, the VMC's Fisheries Officer should be required to deal directly with the Fisheries Division in fisheries training matters. The position of Fisheries Training Officer at the VMC, possibly supported under a bilateral aid program, should be established. The appointee would take responsibility for coordinating all fisheries training work, with significant input from the Fisheries Division, and for coordinating with the Division on fisheries extension needs. The Division and the VMC should work together in promoting a mutually beneficial program of action to address rural fisheries extension and fisheries training needs.

Conclusions and Policy Implications

It is of national importance that a sustained effort is made to increase the economic contribution of the fisheries sector. Detailed recommendations are set out in a fisheries sector reform strategy matrix in Appendix 8.

The potential for increasing the benefits from this resource lies in several areas:

- The development of mechanisms for consultation between Government agencies

- The development of formal consultative arrangements between the Fisheries Division and the private sector, through fishermen's associations
- The implementation of a formal fisheries policy through a process involving all stakeholders
- A review of fisheries legislation to ensure consistency with the fisheries policy and with international agreements and regional fisheries legislation
- The development of fisheries management plans based on the new fisheries legislation
- The institutional strengthening of the Fisheries Division to enable it to undertake the core activities arising from the fisheries policy and enshrined in fisheries legislation

Consultative arrangements between Government agencies

There is a need to develop consultative mechanisms for relevant Government authorities and industry to work with the private sector in implementing management and development strategies. There is a need for a Consultative Committee that brings together agencies such as the Fisheries Division, the State Law Office, Foreign Affairs, the FIB, the Police Maritime Wing, and the VMA. These are the key agencies associated with the regulation of fishing by Vanuatu or foreign-flag vessels in the EEZ and Vanuatu flag vessels elsewhere. In addition to addressing the management of EEZ resources, the Committee could also deal with flag-state responsibility.

Consultative arrangements with the private sector

A formal consultative mechanism with the private sector needs to be established. It would be beneficial if commercial operators explored opportunities to cooperate in fisheries management. Co-management of fisheries has proved a very useful means of extending the Division's ability to develop and enforce effective fisheries regulations.

The consultative process could be moved along if fishermen formed associations. These could be the formal link between Government and industry for dealing with future management concerns. The associations could draft constitutions or codes of conduct to provide guidelines for operating in each fishery. If the Government committed to dealing only with members of associations on licensing and management issues this would have the potential to evolve into a responsible arrangement for managing the fishery.

Policy and legislation

The legislative and management framework for the fisheries sector requires considerable strengthening. A formal fisheries sector policy needs to be developed and implemented with the participation of all stakeholders in Vanuatu's fishing sector including Government agencies, fishermen, processors, traditional owners, NGOs, and environmental interests. This policy will set forth development objectives for the fisheries sector. These will form the basis of fisheries legislation and will define the mandate and core functions of the Fisheries Division.

The fisheries legislation must be reviewed and amended to ensure that it is consistent with the fisheries policy and that it provides the necessary mechanisms to enable the Fisheries Division to manage the resource according to the objectives of the policy. The legislation also needs to reflect Vanuatu's commitments under regional and international fisheries and environmental agreements.

Management plans

The new fisheries legislation will provide an improved basis for the adoption of management plans to ensure that fishing activity is sustainable and in the national interest. Management plans should be developed and implemented for the principal fisheries including tuna, game fishing, aquarium-life, shell, bêche-de-mer, and line fisheries. A tuna management plan (TMP) for the EEZ needs to be developed and implemented.

Tuna

Several issues need to be addressed if Vanuatu is to realize the potential of its tuna resource. Suggested actions include:

- The formation of an Offshore Fisheries Management Committee involving representatives from the private sector, VMA, FIB, Foreign Affairs, and the State Law Office
- The discussion by the Committee of the recommendations of this review and the development of an action plan to address them
- The assignment of priority action to the review of fisheries legislation; the drafting and implementation of a tuna management plan; the development and implementation of a strategy to encourage shore-based fresh tuna export operations; and the review of bilateral access agreements and management and conservation issues associated with fishing vessels operating under the Vanuatu flag
- The review of arrangements for access by foreign vessels to Vanuatu's EEZ tuna resources

It would be useful if the TMP could be completed before the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific takes effect, possibly sometime before the end of 2001. This is because under the Convention, any conservation and management arrangements for the high seas will have to be compatible with in-zone arrangements. Other FFA member countries have already completed TMPs for their own zones so it should be reasonably straightforward to prepare a TMP for Vanuatu, with FFA assistance. However, as with fisheries legislation, the major constraint on preparing the management plan is not so much the limited means for obtaining assistance as it is the absence of effective implementation processes.

During the last 12 years, the Treaty on Fisheries has provided a valuable source of funding support for the Fisheries Division. While Vanuatu has not benefited by being able to gain access to the 85 percent share of Treaty payments based on catches, it has benefited from two other components of the Treaty—a 15 percent share distributed equally among the Pacific Island parties and a facility known as the Project Development Fund (PDF). These payments amount to about US\$230,000 annually for Vanuatu.⁸² While the 15 percent share is paid directly to consolidated revenue, the Fisheries Division has gained direct access to the PDF. The PDF has provided critical support for the activities of the Division during the last decade of contracting recurrent support from the Government. In 2000, it provided an estimated 43 percent of the Fisheries Division's income.

Although the current terms and conditions of the Treaty do not expire until June 2003, nonrenewal of the Treaty arrangements could have adverse financial implications for the Division. It is important that the Division begin to enhance its image and role among politicians and the bureaucracy so that, should Treaty funds expire in 2003, the Division will be well placed to generate support for increased government funding.⁸³

⁸² Vanuatu receives about Vt16 million from the 15 percent share and Vt15 million through the Project Development Fund each year. The Treaty on Fisheries is due for review in 2003. If some of the resource-rich FFA member countries think that they would be better off licensing US purse seiners on a bilateral basis, as has been rumored, Vanuatu's revenue from the regional purse seine fishery could be reduced to a negligible amount.

⁸³ The administrative and financial terms of the Treaty are reviewed at five-year intervals. It may be that some Pacific Island parties think they could extract greater relative benefit from the US fleet under a bilateral licensing arrangement than under an extended multilateral agreement. If such bilateral arrangements were to occur, the Fisheries Division would lose a significant component of its current financial support.

It is unlikely that Vanuatu is receiving appropriate compensation under the access arrangements with Taiwanese fishermen. As the agreement has not been reviewed since it began in 1989, it is probably not going to make much difference if it runs for another year or two. In any case, the Taiwanese albacore fleet is going through difficult times,⁸⁴ so it is probable that, should Vanuatu press the KFA for higher fees, the Taiwanese fleet will choose to end the arrangement. As a result, in the short term the Fisheries Division's resources would be more productively focused on coordinating the implementation of a strategy to attract sashimi operators to base in Vanuatu rather than the likely unproductive exercise of engaging the KFA in renegotiation of the agreement.

With an effective administrative framework in place, priority should then focus on exploiting an improved economic and investment climate that will gradually develop as a result of CRP reforms, to attract shore-based investment in the tuna industry. There is a need for the Government to address issues associated with the development of domestic tuna fishing operations, namely the relatively high costs of power and diesel fuel and the operation of international airfreight carriers. If the Luganville airport is upgraded, in addition to the Tanna upgrade that has been completed, if diesel fuel is priced competitively with the rest of the region,⁸⁵ if electricity charges are reduced and international airfreight is available and competitively priced,⁸⁶ opportunities may develop for viable exports of sashimi-grade tuna.

Game fishing

The Fisheries Division has developed a program to facilitate private-sector interest in promoting Vanuatu's recreational sports fishery. Without effective regulation, further growth in the game fishery will lead to increased conflict with other coastal fisheries. The Fisheries

⁸⁴ See Lightfoot (1997).

⁸⁵ The commercial price of diesel in Vanuatu is around Vt93.8 per liter. The Government price is Vt81.5 while the duty-free price to fishermen is Vt60.13 per liter for category A and VT64.6 per liter for category B fishermen. The cheapest fuel, at Vt60 per liter, is 35 percent more expensive than the regional average and, combined with the high electricity charges that would be imposed on shore facilities, is the major impediment to the development of the domestic tuna industry.

⁸⁶ Air Vanuatu in theory has a monopoly on international airfreight, but Pacific Air Express, a Brisbane-based company, has received political support to commence fish-shipping operations. Air Vanuatu operates three flights to Brisbane weekly, five to Sydney, and two to Melbourne, with an average of 2.5 tons available on each flight for cargo. Although fish would compete for Air Vanuatu's cargo space with kava (Air Vanuatu shipped between 100 and 150 tons of kava in 1999), Air Vanuatu could compete aggressively for fish exports. It could offer connections to Japan through New Caledonia, Fiji, or Australia with expected rates for volume shipments in the range of US\$2 to US\$2.50 per kg.

Division should establish a Sports Fishing Management Committee with representatives from the game fishing industry and tourism sector. The Committee should assign some priority to developing a code of conduct for operating in the industry and implement a program to promote Vanuatu as a sports fishing destination.

Inshore fisheries

Although some commercial operators may successfully establish relatively small operations on some of the outer islands that may raise local management concerns, the logistical difficulties of establishing commercial operations mean that inshore fisheries are currently not in need of heavy regulation. However, to assist the Division in addressing its mandate to manage and regulate these fisheries, it would be beneficial if commercial operators explored opportunities to cooperate in the responsible management of the fishery.

Important small-scale and subsistence fisheries in rural areas could benefit from well-targeted extension and training services. A suggested mechanism for achieving this is through the formation of a Rural Fisheries Working Group consisting of the Division and the VMC. The Group should be primarily responsible for:

- Developing programs that use the assets and expertise in the VMC and the Fisheries Division to serve the fisheries extension needs of rural communities
- Using shared resources to develop and implement curricula at the VMC that addresses the training needs of small-scale fishermen

Aquarium-life fishery

The aquarium-life,⁸⁷ shell, bêche-de-mer, and, in the medium term, poulet fisheries all require a resource management plan. In addition, a working group should be established to assist in the delivery of training and extension services to rural fishermen. The game fishery also needs a management plan that will address current interaction concerns with other coastal fisheries.⁸⁸ While the review of fisheries legislation should clearly describe the responsibility of the Fisheries Division in managing these fisheries, management plans should be developed in partnership with industry and other interest groups.

⁸⁷There is an internationally accepted protocol that could form the basis of a management plan and a code of conduct for aquarium-life exporters in Vanuatu.

⁸⁸The game fish industry is currently licensed through the Tourism Office. The legislative review should resolve difficulties that this alignment currently causes for the Fisheries Division in managing the fishery.

Vanuatu is likely to attract increasing interest from international markets seeking access to marine aquarium-life resources. To manage the expected growth in this industry, it is recommended that existing operators and the Division collaborate on the development and implementation of a management plan for the fishery.

Prospects for effective fishery management would be improved if operators formed an association, with a constitution or code of conduct, developed in association with the Division, that provides guidelines in relation to accepted practice for the industry in Vanuatu. Such an initiative from industry would help implement an effective management plan.

Shell fisheries

Although it would be preferred that shell exporters form an association that could contribute to the development of a management plan, the Fisheries Division may have to maintain a proactive role in managing shell-collecting fisheries. This conclusion is based on the history of infringements detected among operators in the fishery.

The proposal for shell processors and the Fisheries Division to collaborate to dramatically increase the juvenile trochus production from hatchery facilities warrants closer study. Any such venture would have to be the subject of a binding agreement regarding the operation of the facility. It would also have to stipulate the arrangements for the distribution of juveniles, with some being made available to processors and the rest being used to enhance local reef populations.

Institutional strengthening

There is an urgent need to address institutional issues particularly in relation to:

- The strengthening of the Fisheries Division in administration and management, corporate planning, structure, functions and activity areas, data acquisition, analysis, and reporting
- The role of the Vanuatu Maritime College and its relationship to the Fisheries Division
- The relationship between the Fisheries Division and the provincial governments and the FIB in the administration of near-shore fisheries
- Vanuatu's responsibilities as a flag state