

In future editions, we would like to provide comparative information from around the world on traditional resource management and knowledge. To this end we are planning to devote two or three pages in future issues to contributions from outside the usual territory covered by SPC publications, and to establish information exchange linkages with libraries and information departments of fisheries centres in other regions.

In this respect I would like to advise readers in South-east Asia (and elsewhere) that we still ask readers to correspond *directly* with us, as, up to now, nobody has been invited by this Special Interest Group to become Regional Information Coordinator.

Kenneth Ruddle

## Current trends in the management of *qoliqoli* in Fiji

by Andrew Cooke and Kolinio Moce

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### Introduction

The origins, history and legal nature of the Fijian *qoliqoli* (officially termed 'Customary Fishing Rights Area' or CFRA) have been established by several authors (e.g. Anon., 1979; Anon., 1994; Iwakiri, 1989; Adams, 1993; Pulea, 1993; Fong, 1994; Cooke, 1994), and will not be recited here. Suffice it to say that *qoliqoli* are under the control of clan chiefs whose authority is still strong, and arguably even increasing (see e.g. Crocombe, 1994). Essential points to understand are:

1. National fisheries law and practice require that any commercial fisherman must obtain a permit to fish from the registered owner of at least one *qoliqoli*<sup>1</sup> before the state will issue a licence, and
2. Owners are considered to be entitled to charge a goodwill fee for granting a permit (Anon., 1979) and generally do so. In this article we shall describe some of the trends which we noted in management of *qoliqoli* by traditional owners.

### Research methods

The scope of the research was dictated mainly by time constraints. In an eight-week field period it would not have been practicable to visit the far-flung corners of the archipelago. In any case, fishing activities and pressures on managers are most intense around major population centres such as

Lautoka, Suva and Labasa. We decided to focus our attention on the fisheries in the provinces of Ba (Region 1), Tailevu and Ovalau (Region 2) and Macuata (Region 3).

Questionnaires were submitted to *qoliqoli* owners which addressed the principal aspects of fisheries management, including the issue of permits, goodwill payments, management measures, poaching, policing and policy. Questionnaires were also submitted to fishermen to obtain information on fishing methods, patterns and catches. In most cases, the questionnaires were presented personally and respondents generally chose to answer questions orally. In all we obtained completed questionnaires relating to eight CFRA's. Other relevant data, including information relating to fishing effort, were obtained by informal interview, direct personal observations, or from official records.

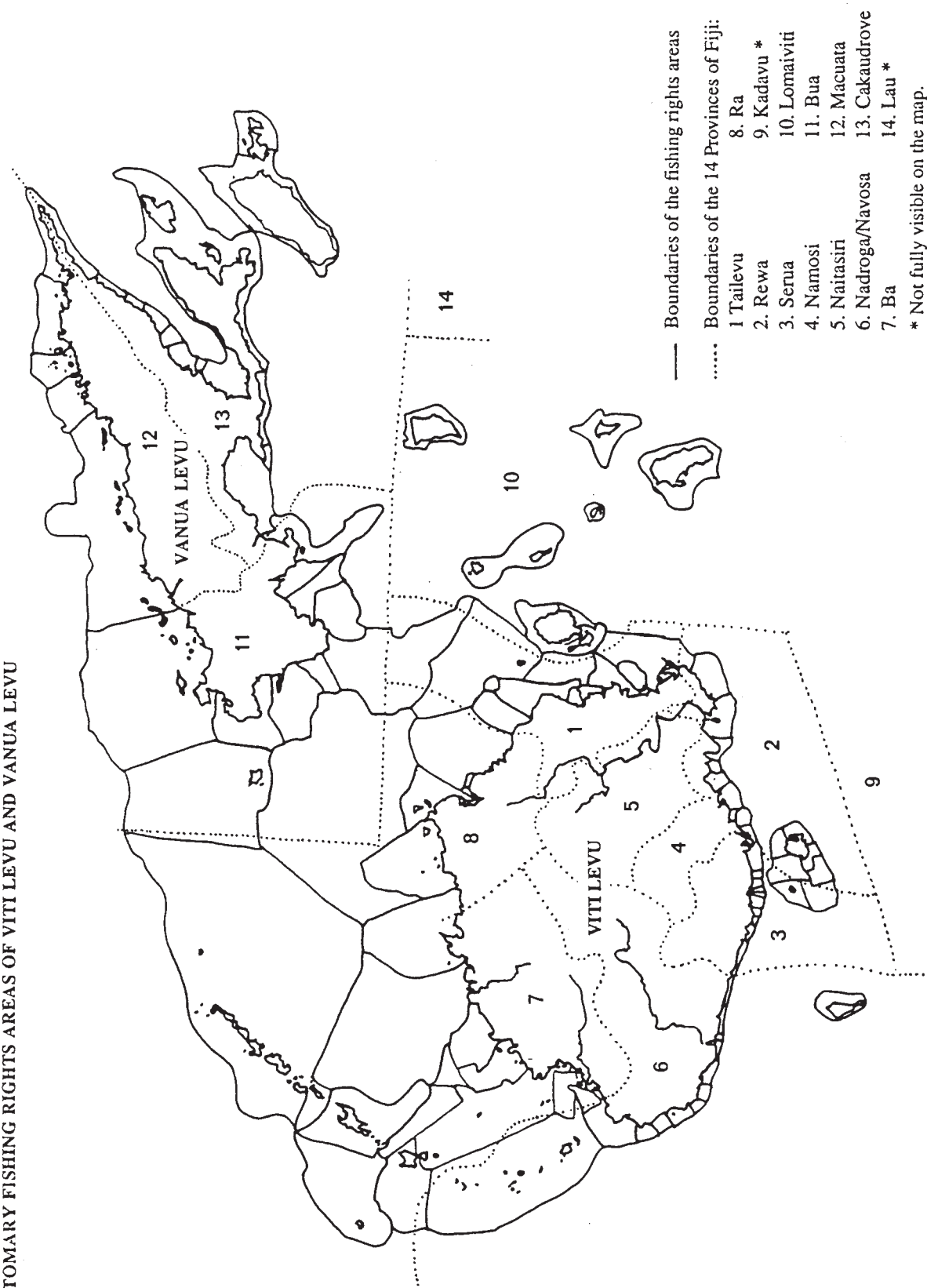
### Results

#### 1. Fishing effort

As a background to the management study, we attempted to estimate finfish fishing effort in the different regions studied. Through a combination of official licensing figures, sales of ice from Fisheries Division ice plants, responses of fishermen and managers, independent estimates of the number of active boats and our own observations, we derived estimates of the fishing pressure in each region.

<sup>1</sup> Technically permits may be issued only by the Commissioner for the Division in which the CFRA occurs after 'consulting' the CFRA owners; in practice the Commissioner accepts the wishes of the CFRA owners.

## CUSTOMARY FISHING RIGHTS AREAS OF VITI LEVU AND VANUA LEVU



Our estimate of catch per boat (10 t/year) agreed well with Passfield's (1994). Based on an assumed 'readily sustainable yield' (RSY) of 10 t of fish/km<sup>2</sup> of reef, commercial finfish catches in the regions examined averaged from about 25 per cent of RSY (Region 2) to 50 per cent (Regions 1 and 3). Locally, pressures were outside this range (10–85 per cent).

## 2. Management by CFRA owners

### Authority to make decisions

In most cases, a single chief of the owning clan-group had acknowledged authority to make all decisions regarding the *qoliqoli*. In one exception, the position of chief had passed to another family and no individual had acknowledged authority over the *qoliqoli*, which was still considered the property of the original chiefly family. As a result, no management occurred, despite intense pressure on resources, to the obvious frustration of the displaced chiefly family. In another case, power was shared between three sub-clan chiefs, the ruling clan line having become extinct.



### Decision making

Generally the chief alone made management decisions, although some chiefs made a point of consulting resource users and the local Fisheries Officer before doing so.

### Issue of permits

Most observed the minimum administrative task of issuing written permits which fishermen could present to the Fisheries Division to obtain fishing licences. In all cases permits were valid for one year (although the law allows permits to be given for up to three years). Some owners have streamlined the permit procedure through the use of typed standard form-permits (sometimes carrying restrictions on fishing) authorising Fisheries Division personnel to collect goodwill on their behalf.

### Payment of goodwill

A few chiefs required only the traditional gift of *yaqona* before granting permission to fish. Most owners, however, now charge goodwill to commercial fishermen for the issue of a permit. Prices ranged from about \$F 50 to \$F 1000 per annum, at rates of \$F 0.10 to \$F 1.3 per km<sup>2</sup> of fishing area. Rates have increased significantly over the last five years, and appeared to be determined primarily by the perceived earnings of fishermen or their ability to pay. In most cases rates were fixed, some setting higher rates for non-locals or Indo-Fijian fishermen. In one notable exception no goodwill was charged to any fisherman, but entry to the fishery was strictly limited to residents of the same district who were expected to contribute to public funds for social projects. Some owners set a high goodwill payment to keep down the number of fishermen, and statistical analysis showed a strong negative correlation between goodwill payment and permit numbers. Others made a surcharge for the right to use nets. One owner who set a high payment was accepting payment by installments.

A widely perceived problem was that licensed fishermen would fish in CFRAs for which they did not have a permit (the state will issue a fishing licence as long as at least one CFRA permit is presented). This problem was most acute for off-shore CFRAs where policing was difficult. In one case the chief responded by authorising the Fisheries Officer to collect goodwill on his behalf.

### Distribution of goodwill

Some chiefs appear to treat goodwill as personal income, while others make a point of distributing goodwill to community projects. The latter cases tend also to be more conscientious managers. Some thought that the Native Lands Trust Board should distribute receipts, while others supported the freedom of chiefs to decide and were against any extra bureaucracy.

### Restriction of fishing effort

At one extreme, there was essentially no attempt to regulate fishing effort, whether through controlling the number of permits or imposing fishing rules. At the other, owners operated and policed a range of measures designed to regulate fishing effort within the *qoliqoli*.

Examples of measures used included:

1. Setting a high goodwill payment to reduce the number of fishermen;

2. Applying a surcharge for the use of nets;
3. Setting a limit on the total number of permits;
4. Banning certain fishing methods (e.g. gill nets, spearfishing, night fishing);
5. Banning certain areas from fishing (e.g. reef bans, island bans);
6. Regulating the harvest of certain species (e.g. reserving prawn fishing to the owners; bans on taking corals); and
7. Banning fishing on Sundays<sup>2</sup>.

In addition, owners often expressly prohibited the range of activities already prohibited under national fisheries law (such as dynamiting, use of compressed air, poison, or illegal net mesh sizes; and catching undersize fishes). Subsistence fishing was essentially uncontrolled, owners considering this to be everyone's right. Fishing activities of women tended to be regarded as subsistence, even where they were of a commercial character (e.g. fishing for mangrove crabs). There was some evidence of commercial women fishers obtaining permits in Region 2.

#### Use of ecological knowledge in management measures

Certain restrictions appeared to have been based on local ecological knowledge, such as a ban on an area of reef to permit recovery of rabbitfish stocks. Some bans extended to the terrestrial environment, including a ban on a small coral island whose vegetation was threatened by fishermen camping. Owners mostly well appreciated the need to maintain the productive functions of the ecosystem, including mangrove areas for spawning and nursery grounds. In one area, a rotational scheme for the harvest of crabs in mangrove was being contemplated.

There was no evidence, however, that a traditional 'lore' of ecological knowledge was involved in management decisions. Rather decisions appeared to be based on modern principles of environmental management which had been acquired by the chiefs. Fishermen interviewed claimed that the knowledge of elder fishermen was not useful as it related only to inshore areas. Today's fishermen in

motorised vessels go for different stocks further out to sea. Nonetheless, management measures tended to relate to nearshore areas where commercial and subsistence fishing converge. Aspects of traditional knowledge may therefore remain important.

#### Co-operation with the Fisheries Division

In some CFRA there was a significant level of collaboration between the owner and the Fisheries Division which generally led to more developed management procedures. There was not, however, a uniformity of approach, management strategies being very much the invention of the individual Fisheries Officer and chief involved. The Fisheries Division did not, at the time, have a formal policy of co-management.

#### Policy strategies

Policing presented the greatest problem for CFRA owners. Only one patrolled regularly, using the boats of the CFRA's own people, and policed effectively through an implied threat of violence. Most had appointed honorary fishing wardens, but these were volunteers who were uncompensated and often afraid to act. Several years ago, in one CFRA, wardens who had reported fishermen using dynamite had their own boats blown up. Wardens have since ceased to be active.

Most owners relied on the support of the navy (which makes regular patrols to check licences and watch for dynamiting). In most areas the Fisheries Division has no boat, but where it does, the CFRA owners rely upon the Fisheries Division to police the fishing ground.

#### Communication with other CFRA owners

Essentially, no communication takes place between CFRA owners on the subject of management problems. As a corollary to this, several respondents said they had acquired new insights through the questionnaire process.

#### Conclusion

It may be concluded that CFRA owners, while taking many management initiatives themselves, are not ready to pursue management alone, but would be willing to tighten up their management

<sup>2</sup> It should be pointed out that Section 13(1)(b) of the Fisheries Act empowers the Divisional Commissioner (who in practice acts on the wishes of the CFRA owners) to impose conditions on the fishing permit, including restrictions on species, fishing methods and areas, in any combination. Sunday bans may technically be outside the powers of the Commissioner.

measures and move towards 'co-management' (see e.g. Pinkerton, 1989) with the state. There were indications that strengthening legal reforms would encourage such a move. There was a need for an exchange of ideas and experience between CFRA owners. Some doubts remained on the treatment of goodwill payments, an issue which needs to be tackled.

### Recommendations

Based on the above findings we recommend that:

- The Fijian Fisheries Division and the Fijian Government adopt a formal policy of co-management to ensure the sustainable use of resources within CFRAs;
- The policy focus on areas of moderate to high fishing pressure;
- Special attention be paid to subsistence fishing in areas where this is intensive;
- A comprehensive investigation be carried out of management practices in CFRAs;
- CFRA custodians and interested state agencies exchange information and management expertise, for example in the form of a regular national conference;
- The Fisheries Division develop a programme to provide advice and assistance to CFRA custodians; and
- As part of such a programme certain CFRAs be selected for a management development project as envisaged in the National Environment Strategy (IUCN, 1993).

### Acknowledgments

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