Here is an update of activities implemented under the Asian Development Bank (ADB) funded SPC Pacific Regional Live Reef Fish Trade Initiative (referred to here as the ‘Pacific LRFT Initiative’).

1. **Aquarium and LRFF resource surveys of Efate, Vanuatu**

From 13 to 24 August 2001, the Secretariat of the Pacific Community (SPC) Live Reef Fish (LRF) Specialist together with the International Marine Life Alliance (IMA) assisted the Vanuatu Department of Fisheries in assessing their live reef food fish resources.

Given the logistical difficulties, the work was concentrated around Efate with the hope of using the fieldwork as a training opportunity for the local fisheries officers on the assessment method who could then extend assessment work to the other islands.

38 transects (2 x 15 minutes time swims done at 10 m and at 20 m depths) were conducted in 19 sites comprising fished and unfished areas selected based on local fisheries officers’ knowledge. The sites were mostly on the leeward side of the island where the sea conditions were more suitable for surveys. On each transect potential LRFFT species were counted and their sizes were estimated. Aquarium trade fish species were also recorded (number, sizes and number of harems). General preliminary observations indicated low abundance of LRFFT species. The aquarium fish resources however seemed to show better prospects for some export.

During the surveys, several Fisheries staff members were trained in the survey method which was quite straightforward especially given previous experience with other underwater visual assessment methods. Fish identification was the main problem. The use of fish identification templates or fish picture cards, which can be used underwater, is a possible solution. A set of these waterproof identification cards for 16 LRFFT species has been developed by SPC and will be available as part of an LRFFT awareness package.

The full result of the survey will be described in a formal report covering the potential of the trade, the management framework, problems and some recommendations.

2. **Assessment of the live reef food fish resources of Ha’apai, Tonga**

An interest by some Chinese foreign investors to start LRFFT operations in Tonga in early 2001 triggered some concern by the Tonga Ministry of Fisheries. Through SPC, assistance to look into this was provided.

In late 2001, a survey team comprised of SPC and IRD (French Institute for Research and Development) staff conducted fisheries surveys in Ha’apai. IMA were also able to come and participate for a couple of days. With three teams of divers, a total of 131 50-m transects using UVC (Underwater Visual Census) was conducted. 97 of the transects targeted commercial reef fish species and 34 targeted all reef fish species on mainly fringing and intermediate reefs. The dive sites for UVC were selected in consultation with the socio-economic team members to ensure coverage of mostly frequently harvested fishing grounds. The diving depth was 7–15 m, which were assumed adequate to get a good coverage of the reef fish populations given the time available.

The surveys indicated a fairly low abundance of LRFFT fish species. Additionally the species observed were mostly low to medium value. As with all the other one-time assessment surveys done under the Pacific LRFT Initiative in other countries, repeat surveys are required to verify the observations. The data from the Ha’apai survey will be presented soon in a formal report.

3. **Sustainable Management of Coastal Fishery Resources Workshop and assessment of LRFFT management capacity and framework, Papua New Guinea**

At the end of October 2001, a workshop was organised by the PNG National Fisheries Authority (NFA) in collaboration with Gillett, Preston and...
The aim of the workshop was to discuss and review the Kavieng area LRFT proposed management guidelines for a trial LRFT operation and to identify and discuss other potential sustainable coastal fishery resources projects that could be developed for local communities. The workshop was attended by a good cross section of both governments (provincial and national levels) and the public (community leaders, NGOs, industry) as well as external bodies (donors, regional organisations).

Main outcomes of the workshop were that:

- The proposed LRFFT management guideline needs to be further reviewed to ensure its practicality and effectiveness in controlling a LRFFT operation.

- Dive operators stated that saving the groupers and wrasses for dive tourism would be a far more beneficial and sustainable use of these resources for the local communities compared to LRFFT operations. The local resource owners on the other hand claimed that from their experience, the dive tourism industry have only benefited the dive operators and that with the LRFFT they have been able to earn a cash income to pay for their school fees, church donations and basic needs.

4. Workshop on Sustainable Management of Live Reef Food Fish Trade in the Solomon Islands

A workshop to discuss sustainable management of the LRFFT in the Solomon Islands was held on 14 to 15 November 2001 in Honiara.

It was organised jointly by the Fisheries Division and Southern Cross University as part of the Australian Center for International Agricultural Research (ACIAR) funded collaborative LRFFT project for the Solomon Islands.

Participants included paramount Chiefs, leaders and spokespersons from the different provincial communities, business operators, environmental NGOs and senior officials from both the Provincial and National Fisheries offices. The SPC LRF Specialist was invited as a resource person.

The workshop had two main objectives:

1) to present the findings from the ACIAR funded study and to discuss management issues and a management plan;
2) to look at the legal framework required for the plan and measures to be effective. For the latter, the Forum Fisheries Agency (FFA) Legal Counsel was invited to give an overview of the legal framework in the Solomon Islands.

Management measures considered include:

- measures to address the issue of targeting spawning aggregations such as:
  - temporal closure of fishing on spawning aggregations,
  - using marine protected areas for spatial closures of spawning aggregation sites;
- limiting the number of licenses and areas for LRFFT to operate in;
- using quotas; and
- monitoring, all levels of the operation (i.e. fishers, middlemen and overseas buyers).

Issues emerging included:

- The jurisdiction at which regulations should be implemented and enforced.
- Which input versus output controls are more effective?
- Who should be involved in the fishery at the different levels?
- What systems could put some control on middlemen prices?
- How can customary owners be involved in terms of management and enforcement?
5. A visit to update the Kiribati LRFT situation

In early January, 2002, the SPC LRF Specialist was in Tarawa to complete the assessment of the management framework for the Kiribati LRFFT.

For an update, the Chinese company, BrightFuture Industries that had the permission to operate has had poor success in Abaiang Atoll. The company has recently indicated an interest to move their operations to Butaritari, an atoll further north. Apparently two independent assessments of the LRFFT resources in Butaritari Atoll have been conducted using different methods. The Fisheries team used a more scientifically based UVC method, whilst the company’s method was based on general observations of the reef areas and experimental fishing. The company representative claimed that their assessment showed abundant resources. Butaritari currently does not have any management conditions and control for any LRFFT operations. Management would depend largely on these being implemented by the Island Council.

6. Assessment of the management capacity for the LRFFT in the Marshall Islands

A two-week visit to the Marshall Islands was made by the SPC LRF Specialist in late January 2002 to evaluate the management framework and capacity for management. With the assistance of the Ministry of Marine Resources Authority, information from people in the national government, local government and private sector, including the operators, was collected. There is one RFFT company, Pacific Marine Resources Development Inc. The company is a joint venture — 75% Taiwanese (Mr Thomas Tse based in Hong Kong) and 25% local (Mr. Phillip Muller, former Minister of Foreign Affairs). The company has collected fish from four outer islands, shipping to Hong Kong every two months. They currently employ 70 Filipinos who are the main fishers but locals are allowed to fish if they want to. With the operations being based in the outer islands, no field observations were possible.

There are three main aquarium fish operators. The Robert Reimers Mariculture facility focuses on giant clams, experimenting on the side with reef fish (clown fish and some Pomacentrids). OK Davies runs a very simple small operation. He also buys fish regularly from an aquarium fish exporter in Tarawa, Kiribati. The Tarawa fish exporter is also hoping to start up an operation in Majuro, but waiting for his permit.

A report on the findings and recommendations from the trip should be available by July 2002.

7. A handbook of guidelines for the management of the live reef food fish trade

In response to the continuous request from Pacific Island countries seeking assistance in drawing up LRFFT management guidelines, SPC and TNC agreed to put their extensive experiences together in addressing the LRFFT management problems and issues in a recipe type handbook of generic management guidelines. This handbook is not expected to be the complete solution to the problems of managing the LRFFT but should be useful in providing some practical possible answers based on real experiences elsewhere.

The SPC LRF Specialist met with TNC (Dr Andrew Smith and Paul Lokani) in March 2002 to discuss and agree on the outline and contents of the handbook, which is expected to be completed and published before the end of the year 2002.

8. Future activities under the Pacific LRFT Initiative

Most of the activities scheduled under the Pacific LRFT Initiative have been implemented except for a number of in country workshops. The ADB funds for the project ends at the end of June 2002, and it is hoped that all the materials and reports being prepared under the project would be ready by then.

To mark the end of the ADB funding, a regional LRFT workshop will be held to make a final presentation of the project results and findings, to evaluate its impact in relation to the progress of management and development of the LRFT in the Pacific and to get an update of current issues and problems that may need to be further addressed. It will most likely be in the next 2–3 months in Suva, Fiji. An official announcement will be prepared and circulated soon.

The Pacific LRFT Initiative will not finish at the end of the ADB funding. Funding from the MacArthur Foundation has already been secured, with some possibility of ADB extending some of their present funding. The activities under the MacArthur Foundation focus on building local capacity of Pacific Islands to assess, monitor and manage their LRFT. A number of short-term local attachment positions with the SPC Pacific LRFT Initiative will be made available to allow SPC member countries fisheries officers to get hands-on training in addressing LRFT problems. In addition, a series of training handbooks will be developed and published as references.