
BECHE-DE-MER NEWS

Mass beche-de-mer production in Fiji

The beche-de-mer industry in Fiji has undergone some major changes over the past couple of years. From a small industry producing some 20-30 tonnes of dried product a year, the annual production began to rise dramatically in 1984, and in 1988 total production was about 665 tonnes. Assuming a somewhat generous conversion ratio of 10% (see article on p 7) this represents some 6,650 tonnes of fresh sea cucumber - about the same as all other seafood production in Fiji combined, including the 2,800 tonnes of tuna caught by the Government fishing company, Ika Corporation, that year.

Unfortunately, this increase in production has not been accompanied by a corresponding increase in the value of the final product. The 33 tonnes sold in 1983 fetched F\$ 394,800 (F\$ 11,963 a tonne), while the 1988 production of 665 tonnes sold for F\$ 1,850,800 (F\$ 3,709 a tonne). Although factors such as fluctuating foreign exchange figures play a part, the main reason for the decline in average value of Fijian beche-de-mer is that processors are making use of low-grade species that were previously considered worthless. In fact, in 1988, some 95% of the beche-de-mer exported from Fiji was blackfish (**dri loli** in Fijian), *Actinopyga miliaris*, a species which rarely appears in the export figures prior to 1984.

There are several reasons that blackfish processing is now economically feasible in Fiji when previously it was not. One is an undoubted increase in acceptance of this species by buyers, partly because it is now in demand as a barter currency for trade with mainland China. However, the value is still low - F\$ 1-2/kg - and for many individuals and rural fishing groups who have previously been involved in harvesting higher-value species, such as teatfish (*Holothuria nobilis* and *Holothuria fuscogilva*), it is not worth the time and energy to process.

A major reason why blackfish processing can now be carried out economically is that the establishment of centralised processing facilities in some areas has enabled mass-processing, resulting in greater cost-effectiveness. Coastal villagers from the area around the processing site undertake collection of fresh sea cucumbers and deliver them at the end of each working day. They are paid according to the weight of what they collect (with some allowance made for the size of the animals), and are not involved in the further processing of the catch. Processing is done in large batches, and a facility such as the one pictured below is able to produce 1-2 tonnes of dried product a day.



Centralised beche-de-mer processing facility in Vanua Levu, Fiji.

(Photo: Steve Roberts)

Such centralisation encourages the exploitation of a resource which might otherwise go unused. However, under this system, villagers are not receiving the full value of their resource because, by selling fresh rather than processed product, they are not realising the value-added component that derives from processing. As

a result, a large part of the income from beche-de-mer processing ends up concentrated in a few hands, rather than many, and much of the benefit of beche-de-mer processing as a village-level income-earning activity - one of the few that exist in some rural areas - is lost.



Beche-de-mer collection rafts like this allow intense harvesting of the resource by coastal villagers.

(Photo: Garry Preston)

Centralisation of processing may also have another unwanted effect, namely that of encouraging overfishing. Any large processing plant is going to need a certain amount of product to keep it going, and, for logistical reasons, much of this will be harvested from the plant's immediate vicinity. In the case of species such as the blackfish, that naturally occur in high densities, it may be possible to achieve sustainable harvest levels even close to a processing plant. However, other species that occur in lower densities may be less resilient. This group may include the sandfish, *Holothuria scabra*, which is also the target of centralised processing activities. Last year, concerns were expressed in Fiji that this species, which is also used locally as a foodstuff, was being depleted in some areas. As a result, a ban on exports of *H. scabra* has been imposed by the Fiji Government since January 1989.

The high level of beche-de-mer exploitation in Fiji looks set to continue, at least in the near future. The explosive growth of the industry raises some serious concerns about the long-term sustainability of these

harvesting levels. Biological information on which to base a management system is almost completely lacking, and even if information were available, the difficulties of effectively managing a geographically scattered, multi-species fishery that is of such importance in generating rural incomes, are great. The only realistic means of monitoring and controlling the fishery is via the exporting companies, which are not too numerous and mainly operate from three urban centres. The Fiji Government is presently encouraging the development of an Association of Seafood Exporters, with a strict code of practice that includes providing information to the Fisheries Division, and encouraging the addition of value to the product at the village level. Exporters must be members of the Association to obtain an export licence for beche-de-mer. This system may be expanded to cover other inshore marine resources in the future.

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New Caledonia export statistics

New Caledonia exported a total of 135 tonnes (dry weight) of beche-de-mer during the period January - December 1989. Three local companies between them exported the entire volume. No details on species composition of exports are presently available.

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