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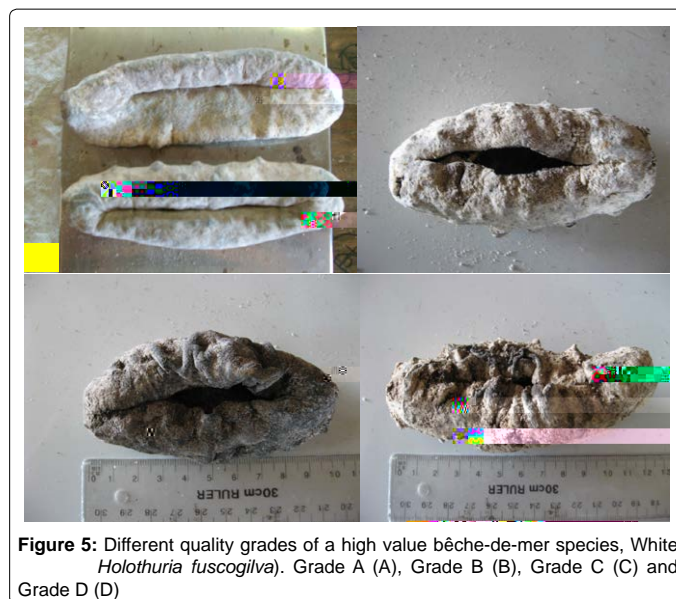
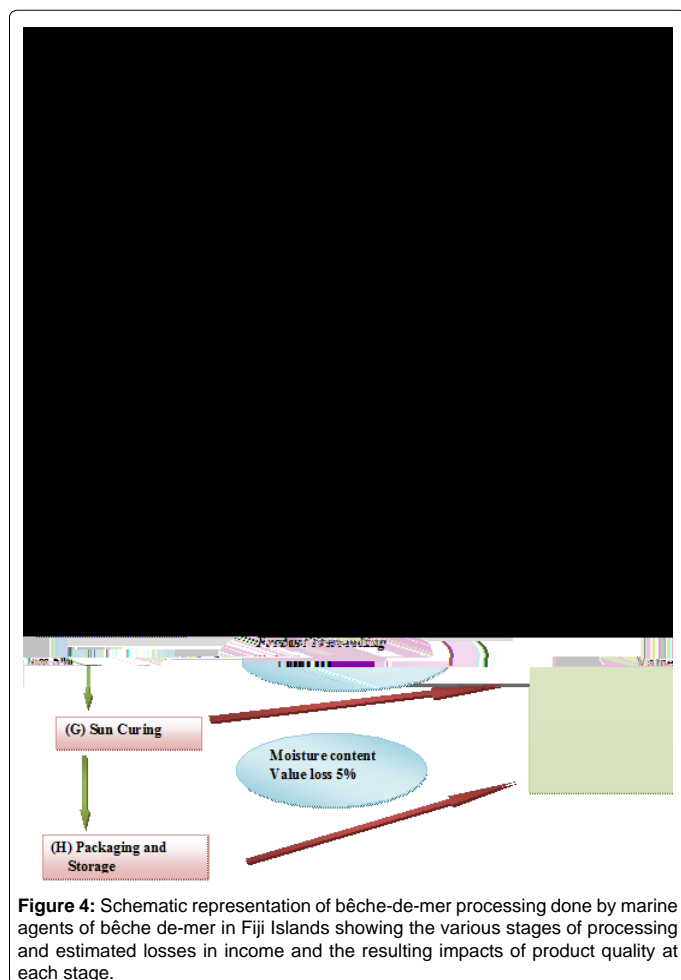
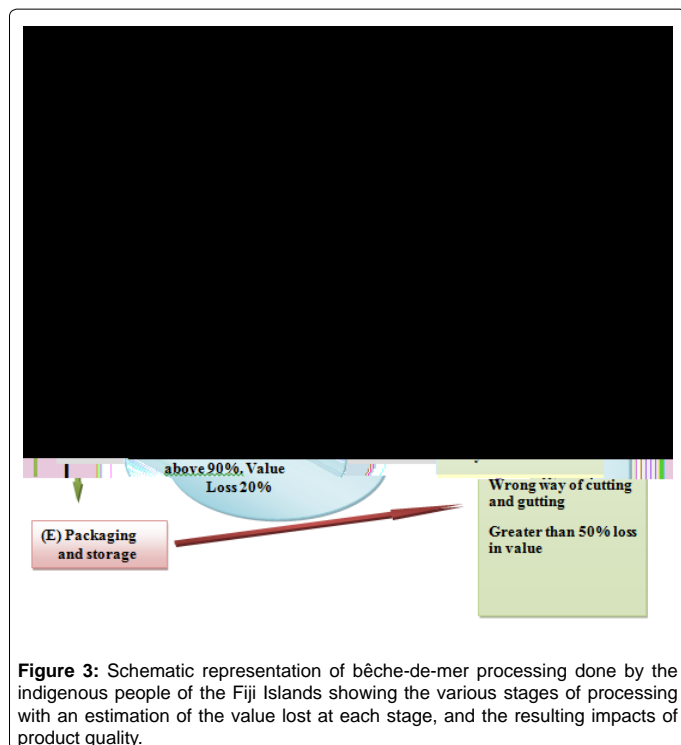
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**Citation:**

week through middlemen, even though the product would contain an adequate number of high value species that could earn them greater income if sold directly to the main exporters who pay much more than the middlemen. Maximising the income of sea cucumber shers in Fiji requires development of stronger links between them and the main exporters. The BDM exporters receive their income in US dollars and this income then filters down the chain to the shers who receive relatively little (Figure 6). For example, the BDM exporters buy White Teat sh from the suppliers at (FJD\$ 50-70 per piece), however the middlemen advise the shers that the value of the product is only FJD\$ 4-10 per piece. Middlemen encourage the shers to deal with them directly, rather than any other buyer, telling them that they offer the best price. This is a successful strategy because shers are often unaware of actual market prices. Dealings between the middlemen often result in a discrepancy of around FJD\$ 10-15 per piece. 'Middlemen 2' (Figure 6) are sometimes Chinese nationals operating in smaller designated areas in Fiji who purchase the products from other middlemen and sell to the main exporters for higher revenue.

Price fluctuations in Fiji reflect those in the global export market. Such variations have a drastic effect on the shers who receive varying income from the marine product agents as a result. During winter months when harvests are low, the price of BDM increases and in summer as supply improves, price falls. In Fiji the trading of marine invertebrate resource (e.g. trochus and bêche-de-mer) with international markets is an important source of foreign revenue. One problem is that there is improper stock monitoring of these sheries and poor record keeping relating to production and export. Indigenous shers in Fiji own much of the " " or traditional shing ground, but they lack basic skills required for proper management of the supply of marine resource to the market [20,24]. This situation is exploited by middlemen and marine product agents in Fiji.

In addition, the issues of community-based resource management are generally complex in Fiji and there is a need to improve environmental awareness and sustainable management of marine resources. People need to actively participate in the management programs run at village level [25] and for better use of marine resources, resource-based education and awareness needs to be addressed allowing local people to acquire greater control over their resources

to ensure longer term economic benefits [8]. There is also a need for fair agreements relating to fisheries resources and proper management programs that could provide a greater and more sustainable source of revenue for the local communities [25].

This study has highlighted some important issues for sea cucumber management in the Fiji Islands and a number of recommendations are suggested on this basis:

(a) Sea cucumber fishers should be educated about the ecological importance of sea cucumbers through extension activities. Hands on training programmes on processing and handling techniques for sea cucumbers should be taught to the fishers to improve the quality and value of bêche-de-mer product [26-28].

(b) Seasonal closures or changing of harvesting sites would reduce pressures on wild sea cucumber stocks. Allowing sea cucumbers to spawn at least once prior to harvest and changes in the fishing grounds

would support more sustainable harvesting practices [28,29].

(c) Bêche-de-mer fishery laws should be enforced properly since current regulations are not being followed by sea cucumber fishers and

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