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S5-C

Towards a sustainable development of pearl oyster culture in French Polynesia

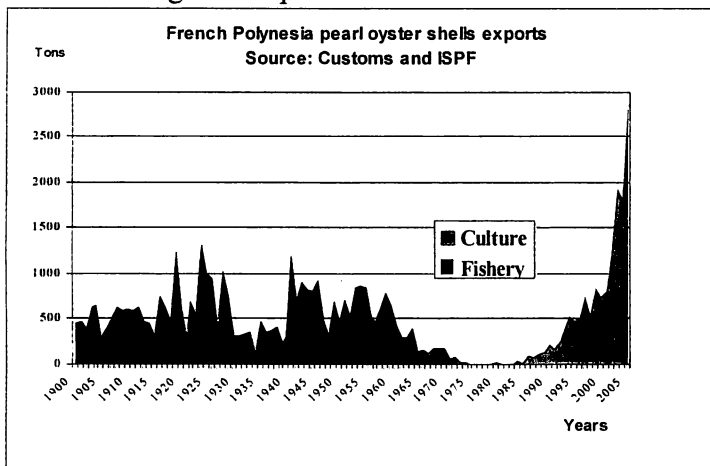
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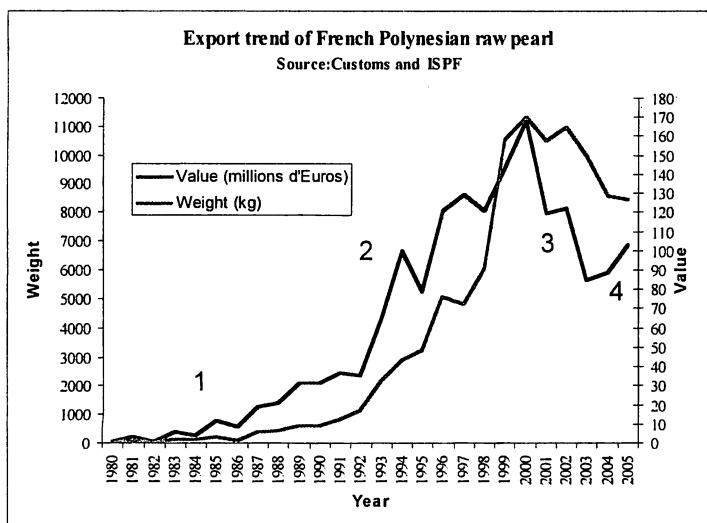
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The pearl oyster history in Polynesia is a good example of a fast stock recovery after severe fishing overexploitation.



The factors that have allowed the development of this new culture activity have been previously described in work presented at the Noumea ARFP meeting. From a biological and ecological standpoint, the pearl oyster is remarkably well adapted to French Polynesian atolls. This is the only place in the world where natural conditions allow such a massive spat production.



Four phases can be distinguished in the history of raw pearl exportation:

1) A pioneer phase with the establishment of rearing techniques and atoll colonization by pearl farms.

2) Exponential development.

3) Crisis.

4) Recovery.

How did such a recovery occur and how to continue improving the situation?

Context of the recovery

As early as 2001, in response to the crisis caused by uncontrolled runaway production, the Polynesian government created a pearl oyster culture Ministry and the “Service de la Perliculture”, which implemented a series of management measures.

- Moratorium on new leases, inventory of existing leases, and enforcement of regulations. Improved professionalism of the pearl oyster culture industry with



training, sanctioned by an exam leading to a professional status (oyster producer, pearl producer, pearl traders).

- Classification of pearls in four quality levels, with a nacreous deposit at least 0.8mm thick. *These criteria are systematically enforced for every exported pearl.*

- Marketing: Intensification of promotion activities based on the existence of this quality control to rebuild market confidence in the “Perle de Culture de Tahiti”.

- Transfer of research results to the management of cultured stocks.

- Better awareness of professional stakeholders, leading to reduced production.

All these measures allowed to reduce production from 11 to 8 tons of pearls and reverted the downward trend of pearl price.

Strengthening the activity

The global objective is to increase average pearl price through production stabilization and pearl quality improvement.

- **Management of the industry:** continued effort to rationalize the sector by the pearl oyster culture Ministry.

- **Market:** competition implies product traceability. A label “Perle de Culture de Tahiti” and a pearl imprint are under study.

- **Promotion:** an in-depth market study showed strong potential for quality products. The objective will be to adjust the production to targeted market demands.

- **Research and Development**

- **Production:** Culture techniques optimization: spat collection, graft, cleaning, and mechanization. Security and sustainability of pearl oyster culture with the establishment of a disease surveillance network and of a study to optimize spat collection.

- **Environment:** Understanding culture/environment interactions and anticipation of potential effects of climate change.

- **Improvement of profitability:** amelioration of production performance through genetic selection. Amelioration of overall pearl quality through better understanding of the mechanisms underlying pearl formation and pearl defaults (pearl circling, etc)

Research tools have been implemented in a concerted way between the government of Polynesia, the pearl industry and research agencies. A general and unifying programme, “Perliculture Durable”, is ongoing and is financed jointly by French Polynesia and France.

Conclusion

Polynesia was able to take adequate measures to reorganize its industry and maintain its supremacy on the world wide pearl market, but it will face numerous challenges to preserve this economic activity. Concerted actions from all stakeholders will permit to take up these challenges and achieve sustainable management of pearl oyster culture.