



Myanmar pearling: past, present and future

by Tint Tun¹

Introduction

Myanmar cultured South Sea pearls (SSP) have been put on sale at successive emporiums held in Yangon, Myanmar, and they were praised as among the world's finest. Three decades after starting pearl cultivation, it is sad to hear different views expressed on Myanmar pearling—'Burma (Myanmar): pearling hits rock bottom',—'Burma (Myanmar) is almost zero factor in South Sea pearls'. Has Myanmar pearling really hit rock bottom? It is an interesting question.

Myanmar has valuable mother-of-pearl shells, ideal places for pearl cultivation, strong and special technology developed by Myanmar for its pearl oyster, prestigious gem emporiums and sound economic reform. Nowadays, pearl cultivation in Myanmar is conducted by not only the state-run enterprise but also joint ventures between foreign and local companies. If Myanmar pearling has hit rock bottom now, it will float again and will prove to be a strong swimmer in the course of time.

Pearl culture in Myanmar

Pearl culture in Myanmar commenced in 1954 after the establishment of a private Japanese–Myanmar joint-venture farm. The joint-venture farm, Burma Pearl Fishing and Culture Syndicate, started pearl cultivation at Domel Island. Then, about two years later, they moved from Domel to Sir J. Malcolm Island (later, it was named Pearl Island) which has more favourable conditions for pearl culture.

These two islands in the Myeik (Mergui) archipelago which is located in Taninthayi (Tenasserim) Division, off the coast of southern Myanmar, about 400 miles (644 kilometres) away from Yangon (Rangoon). Divers equipped with the most modern diving gear of that time collected pearl oysters, and joint-venture could successfully cultivate Myanmar pearls. Seeding technicians were, of course, Japanese. Since they were operating a socialist economy system, the Revolutionary Government nationalised the joint-venture farm on 16 August 1963.

After nationalisation, the Syndicate, People's Pearl and Fishery Board tried to produce pearls using Myanmar citizens. It became the People's Pearl and Fishery Corporation under the Ministry of Agriculture and Forests and later, under the Ministry of Livestock and Fisheries. Pearl cultivation was undertaken by the pearl culture branch of the corporation. At that time, the pearl culture branch was temporarily attached to the Salt Industry, and it was finally transformed into a separate enterprise in 1989, Myanmar Pearl Enterprise (MPE), under the Ministry of Mines.

In 1988, Myanmar reformed its socialist economy to become a market-oriented economy, and a total of three joint-venture companies, both local and foreign, are now undertaking Myanmar white South Sea Pearls production. Pearl Island became the main station, as pearl cultivation has been expanding to some other islands of Myeik (Mergui) archipelago, conducted by state-run and joint-venture pearl companies.

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Current cash budgets of the Myanmar Pearl Enterprise (MPE) are described in the table below.

Gold-lipped pearl oysters, *Pinctada maxima*, have been used as mother shells in pearl production and were collected from the seabed by divers in heavy, massive helmeted diving suits. Small diving boats equipped with much the lighter hookah diving gear are now used in pearl oyster collection by a joint venture.

Hatchery trials on *Pinctada maxima* have been conducted since 1987, but satisfactory results have not yet been obtained to get the desired size and quantity for seeding. Experimental freshwater pearl culture was started in about 1978 at the Kandawgyi (Royal Lake) in Yangon by the People's Pearl and Fishery Corporation, but later it was terminated as it could only produce small seed pearl (*keshi*).

Joint ventures

The significant fact is that the People's Pearl and Fishery Corporation or Myanmar Pearl Enterprise (MPE) was the one and only pearl producer in Myanmar since 1963. Foreign interest and investments have been flowing into various sectors of the Myanmar economy since Myanmar reformed its system to become a market-oriented economy. Both local and overseas (Japanese, Australian, Tahitian, Thai) companies have made enquiries to invest in Myanmar for South Sea pearl cultivation. With the covetous glances from investors, the pearl culture section is also expanding by forming joint ventures between MPE and both local and overseas companies.

Nowadays a total of four companies, the state-run MPE and three joint ventures, are undertaking Myanmar cultured pearl production. MPE is the main partner in all those three joint ventures: two foreign and one local.

The first venture was established in August 1993, with Niino International Corporation of Japan forming the Myanmar–Niino Joint Venture Company Limited. In January 1994, the second joint venture was formed between Ocean Pearl Company Ltd of Myanmar and MPE. The latest partner is a giant Japanese pearl company, Tasaki Shinju, with which they formed a joint venture in March 1997.

Except at Tasaki, seeding is done by Myanmar technicians at all companies. At first, the Myanmar–Niino joint venture used a Japanese technician, but later Myanmar technicians for MPE have been seeding there on loan.

A proposal to form a joint venture between MPE and an Australian company, Atlantis, was submitted to the Ministry and Commission concerned. This latest joint venture is waiting to take part in Myanmar cultured-pearl production.

The Andaman Club, which runs a big resort hotel at Thahtay Island in the southern Myeik (Megui) archipelago, has also prepared a proposal for a permit to cultivate pearls at a nearby island using Myanmar technicians. Overseas interests are witnessing steady improvement in the pearl culture sector, with reforms initiated in accord with the new economic policy.

Technology

When the Japanese started a joint venture in 1954 with Myanmar, it was agreed on both sides that, under what had been called the 'Diamond Policy', the entire know-how of pearl cultivation was not to be given to Myanmar. Seeding was done by Japanese only, and they concealed their seeding technology very carefully. Even windows were curtained off. However, after nationalisation, the Japanese asked to be allowed to take away the cul-

Cash budgets of the Myanmar Pearl Enterprise (MPE)

Year	Receipts (Kyat millions)	Expenditures (Kyat millions)	Surplus (+) or deficit (-)
1989–90	10.2	13.2	– 3.0
1990–91	30.9	27.3	+ 3.6
1991–92	21.5	16.0	+ 5.5
1992–93	5.5	17.8	– 12.3
1993–94	9.2	21.2	– 12.0
1994–95	15.5	29.7	– 14.2

1 US\$ = 6 kyats (approx.)

tured pearls, and lieutenant Commander Maung Aye of the Burma Navy was allowed to be with the Japanese when the oysters were opened for pearls. Seaman Hla Win of the Burma Navy was also present there and, for the first time, Myanmar citizens had a chance to see how Japanese harvest cultured pearls.

The Union of Myanmar takes pride in having developed seeding techniques and successful pearl cultivation conducted exclusively by Myanmar citizens. It should also be recognised that the whole process of pearl cultivation could be undertaken successfully by Myanmar citizens. For decades, it was probably the only country that could produce pearls without assistance from any foreigners.

Myanmar seeding techniques were developed by university teachers in biology. After nationalisation, four teaching staff, U (=Mr) Hia Aung, U Myint Tun, U Htia Aung and U Khin Nyunt from the Rangoon (Yangon) University were transferred voluntarily to Pearl Island to produce pearls successfully. They were the first Myanmar technicians in the history of Myanmar pearl cultivation.

It would seem ridiculous to use a sauce in seeding, but it was tried then. Since the Japanese had not disclosed seeding techniques, the Myanmar technicians made every effort to succeed in seeding. They found some left-over Japanese sauce bottles in the operating (seeding) theatre, but they did not understand the Japanese language. So they thought those bottles were chemical bottles, and that the Japanese may have used them in the seeding operation. They worked out how to use them, and they tried. Then they realised what kind of bottles they were: sauce bottles!

The Myanmar seeding technique is indigenous and can assure the quality of pearls but it is not quantitative. Therefore, it can be called metaphorically, the 'Rolls Royce' technique. The Myanmar technique is applied at MPE, Myanmar –Niino and Ocean Pearl, but Tasaki Shinju still uses its own technicians in both hatchery and seeding carried out in Myanmar.

Production

The British showed interest in exploiting Myanmar pearls and pearl oysters after the first British–Myanmar war in 1824. Reference to this can be found in correspondence in the office of the Commissioner for the Provinces of Tavoy and Mergui (Myeik) in the 1820s. Pearl oysters were not fished under any organised system and pearling grounds were not particularly known till the late 1800s, but oysters containing the pearls were obtained at low water during the spring

tides. Mergui and Mergui archipelago became prominent in 1890 as they produced, mostly due to adventurous Australians, consistent quantities of pearls and mother-of-pearl shell. Before 1912, about 1400 *viss* (2286 kg) of pearl oysters were fished in a diving season between September to April. There was the chance of finding pearls of price—some worth several thousand dollars had been discovered.

No statistics on pearls and MOP shell production by Burma Pearl Fishing and Culture Syndicate are available. However, it was found that the Syndicate collected 29 347 pearl oysters in the 1957–58 fiscal year; 34 124 in 1958–59; 29 231 in 1959–60; 43 495 in 1960–61; and 35 340 in 1961–62 from Myanmar waters.

A peculiar mass mortality of pearl oysters has been observed in some stations since it broke out in 1983 and, consequently, it has undoubtedly affected both the quality and quantity of Myanmar cultured pearls. Myanmar's production of mother-of-pearl oyster shells (MOP) and cultured pearls are shown in Figures 1 and 2 (see next page).

World production of South Sea pearls in 1995 was estimated at 2025 kg (540 Kan). 1995 production of South Sea pearls by the strong producers, Australia and Indonesia, was estimated at 1125 kg (300 Kan) and 562.5 kg (150 Kan) respectively. Myanmar's production of pearl in 1995/96 was 3.446 Kan. 1983–84 was the most productive year for the Myanmar pearl culture industry with 17.84 Kan produced.

Myanma Gems Emporium

During the era of British colonisation, pearls were put on sale at some jewellers' show rooms in Yangon (Rangoon), such as Combes Co. Before the introduction of the gems emporium to the world in Yangon (Rangoon) in 1964, Myanmar gems, jade and pearls entered the international market through various channels and their Myanmar identity became lost, hidden or neglected.

As in other parts of the pearl world, the Japanese partners practised 'Diamond Policy' and Myanmar pearls cultured by the joint venture, Burma Pearl Fishing and Culture Syndicate, were introduced deliberately to the market as South Sea Pearls.

The first Myanma (Burma) Gems, Jade and Pearl Emporium was held in 1964, with the aim of properly channelling the previously loose trade and putting Myanmar and Myanmar gems, jade and pearl squarely on the map of the world gems trade. The emporia were held once a year until 1991 but since 1992, they have been held twice a year as the

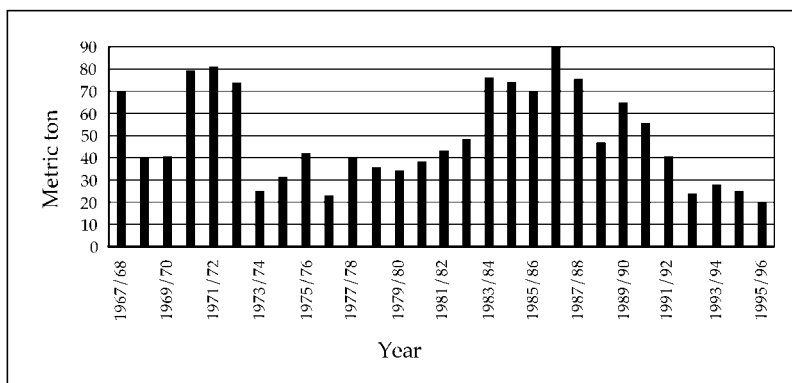


Figure 1: Myanmar's production of MOP shells

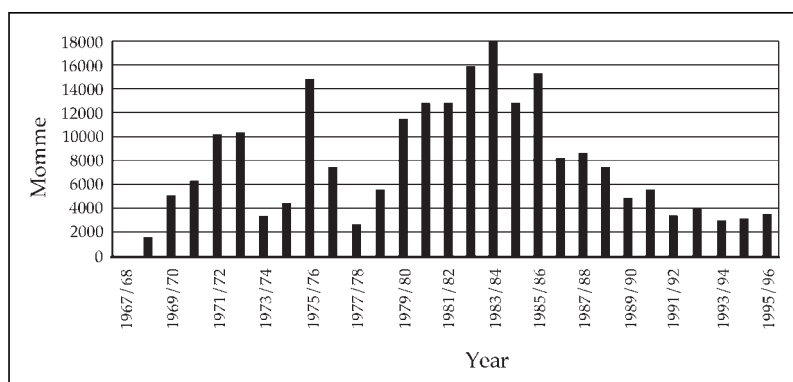


Figure 2: Myanmar's production of cultured South Sea Pearls

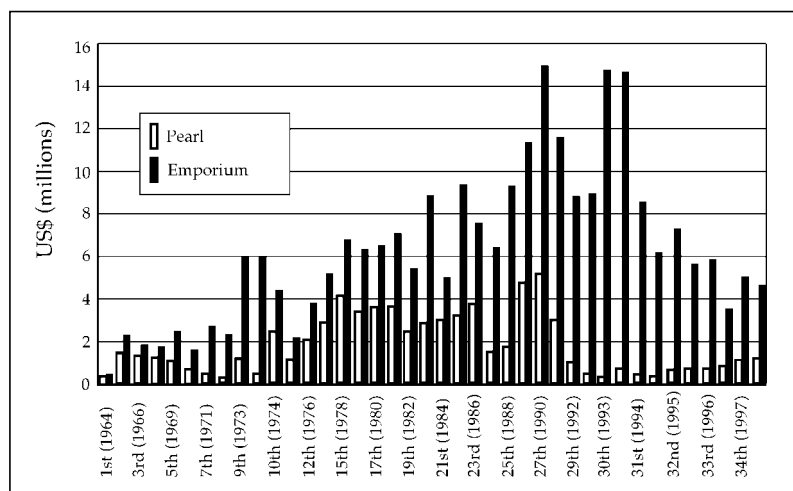


Figure 3: Sale proceeds from Myanmar Gems Emporia and Pearls

annual and mid-year emporia. The emporia made Myanmar pearls well-known in the world. The newly built, three-storey Myanmar Gems Emporium Hall was commissioned in September 1993. The aims for construction of the hall were: to be able to hold gems emporia in a separate modern building instead of at Inya Lake Hotel, and to be

able to extend gems trade at the emporium hall in addition to holding two emporia each year.

Mr Salvador J. Assael's comments on the first Myanmar Gems Emporium reflected very well the quality of Myanmar pearls at their first appearance in the international market identified by their country of origin (in 1963). He recalled, 'The goods were extraordinary in quality. They were, without a doubt, the finest goods that had ever been produced anywhere in the world, and even today, the finest of Australian or Indonesian goods cannot compare with what was shown in 1963.'

A comment on the quality of the Myanmar pearls was also made by a very regular Swiss customer of the Emporia, Mr B. Zaleman of Samourai S.A., Switzerland. He told journalists in an interview at an emporium in 1990, '... You have got the most attractive and beautiful pearls. You are the best in the world. In fact, everything you have got is the best. The best jade, the best ruby, the best sapphire, the best pearls, ... Your quality is the best. Very often people show me the Australian pearls and Myanmar pearls and ask me "Do you see any difference?" I say yes, a little. I want to tell you this. The Australian pearl is like a beautiful lady but she is sad. The Myanmar pearl is like a beautiful lady with a smiling face.'

Sales of pearls at the Thirtieth Emporium held in February 1993, showed a sharp decline. Other comments highlighted the marketing of pearls at the Emporium. They said, '... Pearl lots were of mixed quality and we couldn't find what we wanted. Floor prices fixed were high ... Low quality pearls were mixed in lots

with good quality pearls and it was very difficult for us to make our selections. ... It will be difficult for us to come again if sales are going to be in mixed lots of different qualities.'

The 23rd Emporium was designated as Pearl Special Year but the biggest amount of earnings

from pearls was observed in 1990 at the 27th Emporium—US\$ 5 159 195. Sale proceeds from the successive emporia are described in Figure 3.

Research

Myanmar has an advantage over the others in terms of pearl seeding technicians because all are graduates in zoology or marine biology. Their educational backgrounds can, more or less, help in further attempts to develop the technology at hand. However, systematic research on pearl oysters and pearl culture has not been conducted for many years. Just monitoring some oceanographic parameters such as temperature and salinity of seawater, and weather conditions, is not enough for development of the industry. Basic and applied research are essential to develop not only cultivation but also hatchery technology. Here is an expert's opinion concerning research: 'Professional research done by experts on pearl shells is to be encouraged as it often benefits the industry by helping to improve the product quality'.

Future outlook

Myanmar has a long coastline of more than 1,700 miles (2,734 kilometres) stretching from north to south and it can be divided into three main areas: the Rakhine, Ayeyarwaddy and Taninthayi coasts. All kinds of pearl oysters are in cultured production—*Pinctada maxima*, *Pinctada margaritifera*, *Pinctada fucata* and mabe, *Pteria penguin* are present in Myanmar waters. Rakhine and Taninthayi are candidates for pearl culture, as they can provide some suitable places for expanding the Myanmar pearl culture industry. Myeik (Mergui) archipelago is situated on the Taninthayi coast, and has some geographic advantages over Rakhine. As it can provide a number of ideal places for pearl oysters and pearl cultivation, many of its member islands will become pearl culture stations.

The expansion of Myanmar's South Sea pearl cultivation created many new farms on the Mergui archipelago. A large number of matured pearl oysters are cultured in close proximity of farms, and this can increase the reproductive efficiency of the pearl oysters. Synchronised spawnings on the farms can maximise the fertilisation rates of eggs resulting in more oyster recruitment in the wild. Therefore, establishment of new pearl farms is virtually providing natural hatcheries for oyster repopulating. Systematic studies on the stock assessments and natural spat collection of pearl oyster are also essential for conservation.

Research and development are inseparable, and they are the only way to keep the 'smiling face' of Myanmar pearls. The Pearls Sub-Committee

Director of the Thirtieth Myanmar Gems Emporium said in an interview with journalists in 1993, 'we must try to improve our production methods.'

In the future, more and more pearl oysters can be provided from hatcheries by developing proper grow-out techniques. In line with expanding pearl cultivation in Myanmar, a new generation of culture technicians have been trained to meet the future developments in the pearl culture sector.

Production figures of pearls and MOP shells indicate improvement in both pearl and MOP shells production. Sale proceeds of pearls at emporia also indicate that sales of Myanmar pearls will revive in the world pearl market again. It should be noted that Japan has been producing tons of cultured pearls using *P. fucata* as mother shells for many decades. *Pinctada fucata* can be collected from oyster cages as nature's gift or they can also be collected easily by spat collectors in the Myanmar waters.

Myanmar has a vast amount of freshwater resources, many rivers, lakes and reservoirs. Freshwater pearl culture is also a potential industry in Myanmar. By searching suitable freshwater bivalve mollusc species or introducing exotic species already used in world freshwater pearl production, it is possible that Myanmar can become a producer of freshwater pearls.

Endowed with natural resources and equipped with traditional skills and intelligence, Myanmar has proved that it is a land of many attractions. In line with the new economy, Myanmar still has much room for both fresh and sea water pearl production.

John Dryden, a famous British poet and writer said 'He who wishes pearls must dive deep'. Myanmar starts deep-diving again.

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