

# THE DIAMOND CUTTING INDUSTRY AT CROSSROADS: THE IMPACT ON SRI LANKA

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## 1.0 Introduction

At present the diamond cutting industry is in a depressed state. Worldwide over-capacity in cutting and polishing, combined with increases in the price of rough diamonds and weak demand in the traditional retail markets of USA and Japan, and more recently, the Gulf crisis, have contributed to the present situation. The industry is now in the process of rationalising itself to meet the new challenges ahead.

This article broadly analyses the events leading to the current situation and attempts to assess its impact on the diamond cutting industry in Sri Lanka and presents strategies for promoting investments with this sector.

## 2.0 Brief Overview of the Diamond Cutting Industry in Sri Lanka

The evolution of diamond cutting into an important domestic export industry in Sri Lanka can be considered a result of the following factors, listed according to the probable order of importance:

- (a) an innate ability to obtain the best "make" from rough diamond.
- (b) good eyesight combined with a high degree of manual dexterity.
- (c) high literacy rate and the ability to follow simple instructions - i.e. high degree of trainability.

(d) low wage structure.

In general, it can be stated that a centuries old history in gemming and an artisan culture, combined with a national average literacy rate of over 85% have helped foster within Sri Lanka a labour force ideally suited for diamond cutting.

The estimated export performance of Sri Lanka's diamond industry is shown below:

Year	Exports (Rs. Million)
1982	219
1983	449
1984	273
1985	434
1986	1215
1987	1248
1988	1629
1989	3225

Source: Export Development Board.

Diamond exports have grown from about Rs. 220 million in 1982 to Rs. 3225 million in 1989, according to Export Development Board statistics. This represents an exchange rate - adjusted compound annual average growth rate of about 34% for the period. In 1989, Sri Lanka had about 3000 cutters, and the average output from 12 factories in operation totalled around 25,000 carats per month. Although significant growth has been accomplished in the past, Sri

Lanka's output still remains an insignificant 0.25% of the world's demand for cut and polished diamonds, estimated at over US \$ 20 billion per year.

For the sake of comparison, if the performance of the garment industry is compared with that of diamond cutting, although no correlation exists between the two except they have both been high growth export industries in Sri Lanka, it can be shown that garment exports far exceed diamond exports in terms of value as well as employment generated. In 1989, over 350 factories were operating in Sri Lanka exporting about Rs. 17 billion in garments, more than 5 times the value of diamonds exported.

The parallel which can be drawn here is that in considering the relatively superior skills in diamond cutting available in Sri Lanka, and probably a greater comparative advantage in comparison to garment manufacture, the export growth performance of the diamond industry during the last 3 years has been somewhat limited. Most of the real growth in exports recorded appears to result from existing factories expanding production rather than new entrants into the business. In an industry which held much promise for growth in the 1980's only about 11 factories commenced operations during this decade. Hence there appear to be significant barriers to entry into diamond cutting from the point of view of local investors.

Briefly, the main barriers to entry into this business are given below:

(a) extended learning curve in achieving full productivity, and the need to rely on expatriate trainers at very high cost.

(b) limited success by Sri Lankan investors in identifying joint venture partners and/or suppliers of rough and distributors of polished goods in major trading centres such as Antwerp and Tel-Aviv. In comparison, Indians are in a favourable position to obtain reliable supplies of rough and market finished goods due to a large Indian community taking up residence in Antwerp during the early 1970's.

Today more than 100 Indian families have at least one member residing in

Antwerp, thus forming an invaluable link between the 4 trading floors in Antwerp and the cutting factories of India. Similar family ties have been established between the Jewish community in Antwerp and cutting factories in Israel. Therefore the traditional family ties prevalent in the business automatically places a potential Sri Lankan investor at a comparative disadvantage in establishing links for supply and marketing.

(c) **the difficulty in raising working capital financing.** Foreign suppliers, particularly in the case of new factories, often impose the burden of purchasing rough outright on local investors and require up to 60 days credit for marketing. Thus large sums of working capital financing are required, with banks generally requiring 100% security cover on their exposure. (Diamond stock is usually not accepted as collateral).

(d) **multiple foreign exchange conversion and bank charges.** Exchange Control regulations have also affected the industry since diamond exporters, other than the few 100% foreign owned companies, are required to carry out multiple foreign exchange conversions when effecting imports and exports. These multiple dollar-rupee-dollar conversions result in additional bank charges which erode profit margins available to cutting factories.

The above factors, combined with the inherent fluctuations in the diamond market have contributed towards inhibiting the growth of this industry in Sri Lanka. In the following paragraphs, strategies to enhance the country's competitive position are discussed.

### 3.0 The Diamond Industry – The Global Situation

#### 3.1 Overview

After nearly 9 years of steady growth in turnover and profits, the diamond cutting industry is presently undergoing difficult times.

Israel, which processes almost half the value of the world's rough diamonds has seen a 20% decline in carats processed this year as compared to 1989. Some of the country's 700 or so facto-

ries have either closed down, retrenched workers or moved into the trading business. India by far has been worst affected by the present recession facing the industry. In a country in which about 800,000 workers are directly or indirectly involved in diamond cutting, at least 200,000 are reportedly out of work.

The following paragraphs attempt to analyse the underlying reasons for this slump and presents the prognosis for the future of this industry.

#### 3.2 Factors Affecting Cutting Industry

The present slump faced by the diamond cutting industry for small stones is a result of a series of events, involving the De Beers diamond cartel, cutting factories and retail markets in general. Given below is a summary of some of the event leading to the present situation. These events, although inter-related, are not necessarily in the sequence in which they occurred.

##### Expansion in India

The mid to late 1980's were very profitable years for the cutting industry with the expansion fuelled by strong economic growth worldwide. In particular, industrialists cutting and polishing in India were making sufficiently large profits which enabled them to:

(a) expand capacity, and

(b) purchase rough diamonds from sources other than their traditional suppliers at higher prices for purposes of stockpiling and cutting and polishing. Due to strong market demand, the Indians were able to make adequate profits by paying premium prices for rough diamonds.

The above situation led to an oversupply of low quality, cheap Indian goods being dumped into the market. This eventually contributed towards an overall depression in prices for most small to medium sized diamonds.

##### Increase in the Cost of Rough Diamonds

Partly top stem the Indian expansion in cutting capacity and stockpiling, the

Central Selling Organisation of De Beers increased prices of rough diamonds by about 25% and 5.5% in 1988 and 1989 respectively.

##### Slackening of Demand in Major Retail Markets

Japan and USA account for more than 65% of global sales in cut and polished goods. The fall of the yen against the dollar and the financial turmoil in Tokyo combined with a weakening US economy has contributed to the general slowdown in demand.

##### General Shift in Consumer Preference

With the glut of badly made Indian goods resulting in an overall depression of prices, consumers found small good of a better "make" affordable and perceived them as a better investment stone (the "make" of a diamond refers to the quality of the cut and clarity). Therefore, in broad terms the market demand for small diamonds shifted towards better quality, with customers being more selective of goods purchased.

The combined effect of the above factors has been the erosion of profits margins to cutting factories and an ensuing rationalisation of cutting capacity through closures and lay-offs.

The net result has been that cutting factories have been on their own accord forced to obtain better market prices for finished goods to remain profitable. The only way of achieving this desirable end, in an environment of increasing prices of rough and slow down in demand in traditional markets, has been to produce a better quality stone and move up-market.

Invariably this would mean better production management and the use of improved technology which automatically places the Indian industry at a disadvantage since it functions primarily on a sweat-shop/cottage industry type model, making quality control difficult.

### 4.0 Outlook for the Diamond Cutting Industry in Sri Lanka

#### 4.1 Overview

As pointed out previously, the diamond cutting industry is at crossroads.

With significant shifts in consumer demand patterns, increasing prices of rough and over capacity in cutting the industry is now undergoing a process of rationalisation. Analysed below is Sri Lanka's position vis-a-vis this changing environment.

## 4.2 Impact on Local Factories

In comparison to India, the impact on local factories arising from adverse trading conditions has been minimal. This has been primarily due to the Sri Lankan diamond industry functioning according to an "organised factory" model as opposed to the "cottage industry" model prevailing in India.

The organised factory concept allows Sri Lankan facilities to consistently produce better quality goods which are marketable in relation to Indian goods of poor "make". Thus profit margins to local factories, although comparatively less than margins obtained during the boom years between 1984 and 1988, have been adequate to remain in business.

In contrast, the cottage industry model makes quality control virtually impossible since a single supplier usually supplies rough diamonds to literally dozens of sweat shops; the supplier then receives finished goods which are of inconsistent quality, thereby not being able to command premium prices in the market place. Furthermore, these sweat shops are often poorly lit, lacking in air conditioning, with equipment rarely maintained and balanced, and workers are often plagued with poor eyesight and poorly remunerated. The combined effect of these factors is a poor quality product.

However, virtually all Sri Lankan factories operate as well organised production systems, with air conditioning, sufficient lighting and a relatively comfortable working environment. Very often quality control standards are stringent. Therefore loss of jobs have been marginal resulting from the current events in the market place. Nevertheless, it is reliably understood that about 200 to 300 cutters have either been retrenched or have voluntarily left their jobs due to the current industry slump. Contributing

to this has been the introduction of more stringent quality standards resulting in the daily output of these workers dropping below acceptable standards. This means lower earnings since wages are linked to productivity and quality.

The above suggests that the Sri Lankan factories are better equipped to compete in the market place than their Indian counterparts. Hence it is realistic to assume that if the Indian industry is to remain competitive, cutting and polishing operations need to be structured as an organised production system.

However this is not to be a realistic option in the near term due to exchange control laws, taxes and a frustrating bureaucracy prevailing in India. The present cottage industry model offers the Indian diamond trader an ideal means of operating through the black market. Furthermore, channels for smuggling diamonds in and out of India have been established over several decades and it is unlikely that there will be a significant shift in the overall structure of the Indian industry into the organised factory model. A more likely event would be the overall paring down of the cottage industry operation to manageable levels with literally thousands out of employment permanently.

In the final analysis, the erosion of margins to the cutting industry has meant that the Israeli industry is affected due to high labour costs and the Indian industry due to poor quality. This situation presents an attractive opportunity for Sri Lanka to penetrate the market further to pick up the slack in the industry, since under prevailing market conditions for small stones, Sri Lanka's competitive position is enhanced due to its low wage structure and reputation for quality. Hence an argument can be presented that Sri Lanka's industry

should be poised for expansion.

## 5.0 The Potential for Growth

Based on the above analysis, it is reasonable to assume that the cutting and polishing of diamonds in Sri Lanka has the potential to grow into a major export industry, generating significant gains in employment and net foreign exchange earnings. If Sri Lanka achieves a mere 5% share of the world's market for cut and polished stones, it can be roughly estimated that more than 60,000 would gain direct employment, about 20 times more than the present levels. Achieving significant growth within this export industry is made possible in considering that:

(a) it is generally acknowledged that the average productivity of Sri Lankan labour is superior to that of India, Thailand and China.

(b) due to the inherent multiformity of diamonds, automation in cutting and polishing is not expected to significantly diminish the importance of manual labour in the long term.

(c) the rationalisation presently underway within the industry is expected to irreversibly enhance the competitive position of low cost, high quality producers such as Sri Lanka.

However, the above optimism does not necessarily lend itself to Sri Lanka embarking on a hastily executed large scale capacity expansion programme; it merely suggests that if properly planned, the potential exists for Sri Lanka, with its liberal exchange control laws, zero taxation on exports, highly trainable labour and experience in operating large scale organised factories, to become the major growth centre for diamond cutting in the 1990's.



The argument against setting up new factories, based on the present industry situation is that:

(a) a new factory's output during the initial 1-2 years of production is usually of a poorer "make" and lower yield due to the relatively lengthy learning curve inherent to diamond cutting; and as stated previously, the market for lower quality goods is weak.

(b) due to Antwerp's general reluctance to supply new factories on a "cutting fee" basis, enhanced by the fact that Sri Lankans do not have ethnic links to the trading floors of Europe, new factories are additionally burdened with raising vast amounts of working capital finance (usually running into more than three times the cost of plant and equipment) and bearing the interest cost thereon.

Therefore factories commencing operations in the present business environment are subject to severe financial constraints through the combined effects of profit margin erosion, high finance charges and costs of expatriate trainers. In the final analysis, starting a new factory currently would mean extraordinary losses during the initial years of operation; and unless the market picks up dramatically, getting started in diamond cutting must necessarily be limited to parties with sufficient financial clout to withstand initial losses and those who are committed to long term profits and returns.

It is therefore natural to question as to what point in time a new Sri Lankan diamond factory can operate as a viable concern. The answer is as soon as the factory has adequately demonstrated to Antwerp that:

- (a) it is owned and operated by individuals (preferably family members) of impeccable repute and financial stability.
- (b) the factory has sufficient installed capacity, is well managed and its output is of a consistently good "make".

Once these attributes are demonstrated, the very suppliers who initially would have required the Sri Lankan factory to purchase rough diamonds through them on COD terms and be paid

for polished when sold would be willing to take the "risk" of supplying rough diamonds, in very large quantities on a cutting fee basis.

At present there are many reputed traders who are also site holders in Antwerp willing to supply to Sri Lanka, sawn goods and makeables of about 10 pointers rough on a cutting fee ranging from US \$ 0.75 to US \$ 2.00 per stone. However supply is contingent on the factory having been operational for about 18 months. Also exhaustive checks would be carried out on the quality of the output and production methods as well as the financial strength and standing of the owners. The latter is necessitated in considering that the diamond business is carried out largely on trust; and documentary letters of credit which prevail in tradition import/export businesses are the exception rather than the norm.

Because some dealers in Antwerp are willing to supply rough diamonds in quantities exceeding 100,000 stones per month on a cutting fee basis, only to existing factories in Sri Lanka passing an equivalent of a "litmus test" in diamond cutting, literally millions of rupees of potential foreign exchange earnings are lost to the country. For example it can be roughly estimated that a factory cutting and polishing 100,000 swan pieces a month would create employment for about 450 persons and net foreign exchange earnings would total about Rs. 50 million per year.

Hence Sri Lanka's industry faces a conflicting situation: high labour costs and poor quality having contributed to many factory closures in Israel and India respectively, diamond dealers are looking towards alternate sources for cutting and polishing diamonds. However, Sri Lanka, as a relatively efficient producer has insufficient capacity and skilled operators to meet this demand. Moreover, foreign investors are generally reluctant to take equity in factories located in Sri Lanka due to cutting factories being inherently difficult to manage from abroad, lack of family ties and general preference to make profits from trading rather than manufacturing.

Nevertheless, reputed sight holders in Antwerp are willing to enter into agree-

ments with Sri Lankan investors on the following basis:

(a) new factories with unproven capability would have to purchase rough diamonds on COD terms from suppliers who will retain a brokerage commission of upto 2%. When cut and polished, the diamonds would be marketed by the same supplier who would again retain a commission of upto 2%. Exports from Sri Lanka would be on documents against acceptance with the period of the draft averaging around 60 days. This means that the local factory would need to carry the burden of a large working capital financing facility to cover around 30 days of rough stock and 60 days of receivables. This model involves no risk to the supplier who would agree to supply rough and market polished at best prices prevailing in the market; his reputation in the trade would be the main yardstick available to the Sri Lankan investor to ascertain that the supplier is acting in good faith.

(b) once a new factory has established itself as a reliable manufacturer, usually possible after 12 to 24 months of operations depending on the quality of management, the Antwerp traders would willingly supply diamonds on a cutting fee basis. Thus the need to tie-up local working capital finance for diamonds is minimised. In certain cases the supplier may even take equity in the Sri Lanka facility to partially finance capacity expansion.

Note that the transition from the first to the second model is a reflection of the supplier's willingness to reciprocate the "trust" placed in him and analogous to a successful courtship leading to marriage!

Ideally, a "mature" diamond cutting factory in Sri Lanka should be operating on both models. The first model enables the Sri Lanka factory to obtain a higher value added, particularly when market conditions are propitious. The latter allows the factory to expand production at a faster rate without the burden of obtaining enhanced facilities for working capital financing and offers protection against market downturns.

Nevertheless, the critical issue this report wishes to address is that the road to

achieving "matured factory" status is a difficult one, and which many Sri Lankan investors are reluctant to take in view of short term losses and other constraints discussed previously. It can therefore be argued that a situation has arisen where Sri Lanka's private sector is unable to take advantage of a potentially lucrative long term business opportunity without the benefit of Government policy concessions directed exclusively towards promoting this industry.

**6.0 Government Policy Issues**

The incentives for developing the diamond cutting industry should primarily be directed towards minimising the barriers and constraints faced by entrepreneurs during what can be termed as the "incubation period" of a new diamond cutting factory. That is the period from start-up, to having a fully trained contingent of workers required to qualify for receiving goods on a cutting fee basis, which under normal circumstances should not be greater than 2 years.

This report does not attempt to go into a lengthy discourse on the range of incentives which should be made available to the diamond industry, but highlights critical issues which need to be addressed when deciding on Government policy options for promoting this sector. Consideration should be given to the following:

(a) loans at concessionary interest rates to finance the cost of expatriate trainers and exemption from the 25% tax on total emoluments for such trainers. (At present the Export Development Board has a loan scheme for new factories to finance 50% of training costs, carrying an interest rate of 5% per annum, repayable over 5 years. Ideally this scheme should cover factories choosing to expand capacity as well).

(b) facilities to operate US dollar accounts through Foreign Currency Banking Units (FCBU) of local commercial banks, for the purpose of using export proceeds to pay for imports, thus avoiding multiple foreign exchange conversions which result in excessive bank charges and erosion of profit margin. Permission to operate FCBU accounts, though presently granted to companies

with foreign equity, should be granted to 100% locally owned diamond cutting factories. This concession has the added benefit of lower interest rates which is a critical factor affecting competitiveness in the diamond industry where working capital exposure is high. This facility should replace the Central Bank refinanced packing credit scheme which is inefficient in the context of the norms of trade prevailing in the diamond industry. (Note that during the 1960's and 70's cheap interest was vital in giving Israel's diamond industry a competitive edge over many of their rivals in Antwerp and New York, who were more dependent on the changing seasons of commercial rates.)

diamond cutting centres cannot be emphasised enough. Schemes such as "Imprest Systems", margin accounts and trust receipts have been used by commercial banks in these cities to facilitate obtaining working capital finance. However the critical attribute required of bankers to the diamond industry, which is lacking in Sri Lanka, is a specialised knowledge of the business (valuation techniques, market trends) and that of the individual diamond manufacturer. (factory capacity, production techniques, security systems etc.).

(d) extension of pre-shipment credit guarantees by the Sri Lanka Export Credit Insurance Corporation (SLEIC)



(c) establishing separate "Diamond Divisions" within local commercial banks specialising in meeting the financing needs of this sector. The role played by commercial banks in the evolution of Antwerp, Tel Aviv and Bombay into major

at a higher level than has hitherto been offered to other export industries. A case can be made that in view of the very high value of the imported input in diamond cutting, the insurance cover offered to commercial banks under the Pre-ship-

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ment Credit Guarantee Scheme of SLECIC should be increased from 66-2/3 percent to 90 percent with a view to promoting this industry.

(e) creation of a special task force consisting of representatives from the Diamond Manufacturers Association, relevant Government ministries and investment approving agencies and commercial banks in formulating specific policies and guidelines in promoting this industry. The terms of reference of such a committee must include the carrying out of an indepth study of the functioning of the cutting industry in established and emerging centres such as Antwerp, Tel Aviv, Bombay, Bangkok and Beijing and recommending policy measures to promote similar growth in Sri Lanka.

In considering the above, it should be noted that Sri Lanka has not historically targeted policy concessions to develop one specific industry. Therefore, the implementation of these recommendations would result in representations by exporters that such measures should necessarily benefit other export industries as well. The following arguments can be presented to justify preferential treatment for the diamond sector:

(a) Historically, the growth in diamond cutting and polishing and subsequently trading within the world's major cutting centres evolved as a result of Government policies specifically directed to promoting this industry.

(b) Diamonds being the most concentrated form of value among all traded commodities, the working capital exposure in relation to fixed assets employed is much higher than any export industry in Sri Lanka.

(c) In view of a lengthy learning curve where operators may take more than one year to achieve full productivity, expatriate trainers are required for a relatively long period of time at high cost.

(d) Very often net foreign exchange earnings as a percentage of net sales is presented as an important measure in qualifying for special investment incentives. This is a misleading indicator in the context of diamonds where value

addition in percentage terms generally ranges from 8-20 percent depending on the type of rough diamonds processed. However in absolute terms, net earnings in foreign exchange from diamond exports can far exceed other exports due to the high value of the commodity.

(e) The expansion of this industry, quite apart from generating significant employment can lead to the establishment of a major diamond exchange in Sri Lanka, bringing together international buyers and sellers, and contribute towards expanding the jewellery export industry as well.

It should be noted that the manufacturing sector in Belgium and Israel have responded to the loss of competitiveness to low wage countries by successfully computerising almost all the processes involved in transforming diamond rough into cut and polished stones. This technology is known to increase labour productivity by 4 to 8 times that of manual methods. However presently the cost of automation is high and this technology cannot be used on all types of rough diamonds and limited to producing the brilliant cut only. Therefore the importance of the labour input prevails.

Nevertheless, in the medium to long term, there is no warrant for assumption that relatively cheap labour rates will continue to be available in Sri Lanka and automated technology would remain costly and limited in its applications. Therefore, one should expect that if Sri Lanka is to remain competitive in the long term, this industry should be given the necessary incentives to expand its manufacturing base in the short term so that profits can be invested in new technologies being evolved.

### 7.0 Conclusion

Thailand and China are emerging as new growth centres for cutting and polishing in competition with Sri Lanka and, if Sri Lanka is to fully exploit her comparative advantage over these two countries, the Government must extend concessions to nurture the local industry through its incubation period as referred to above. These concessions are essential in considering the inherent closed nature of the diamond business and would eventually result in greater for-

ign investment in this sector.

If the history of cartelisation is analysed for this century, without any doubt, the De Beers diamond cartel can be considered the most successful. To enter into this exclusive "fraternity" of diamond cutters and traders, one must necessarily prove oneself worthy of "membership". Upon entry into this diamond fraternity, the cartel treats those falling in line with its policies and guideline benevolently, ensuring that traders and cutters shall make adequate profits in the long term, though short term windfall profits and losses are inevitable. Even the slightest violation of the "trust factor", all important to the functioning of this industry, would mean expulsion from this inner circle and re-entry into the business could literally take a generation, if at all. Similarly traders prior to benefitting from the supply of rough on favourable terms, and equity participation.

Therefore even if government policies are in place to assist local entrepreneurs during the so called incubation period, it can be questioned whether Sri Lanka's private sector has the resolve and the requisite management skills (having been pampered on industries and business opportunities yielding short term profits,) to weather the initial losses in anticipation of long term profits, characteristic to diamond cutting. In the absence of ethnic and family ties to the major diamond trading floors of the world, there are no short cuts to success in this industry.