CHAPTER V

THE RUBBER ECONOMY:
PLANTATION AND INDUSTRY MANAGERS
OF KANYAKUMARI DISTRICT

Thus far, the four preceding chapters have built the background upon which the entire study could be understood. The first chapter has introduced the problem and procedures followed in the study. The second chapter, through a brief review, provided for an overview of rubber and rubber industry in the global and national context. The third chapter has examined the geographical conditions for the growth and development of rubber and rubber industry and presented a brief description of the district of Kanyakumari and the rubber and rubber industry there. The fourth chapter further elaborated rubber and rubber industry in India and Tamil Nadu, while also describing long-term trends in natural, synthetic and reclaim rubber. To a certain extent, the industry, especially tyre and non-tyre sectors, production and consumption patterns and international commodity agreements, has all been discussed.

The present chapter concerns itself with the analysis of data collected from the plantation and industry owners and managers. For rubber economy has two human components: the owners or managers of plantations and rubber industries and the workers in the plantations and industries. The present chapter is the analytical part of the study on rubber economy, in respect of data collected from the plantation and industry owners or industry managers. There are in fact two levels of analysis: a simple frequency and
percentage analysis, which is used for describing the rubber industry people
For the purpose of the study, 18 industrial owners/managers have been interviewed using a separate schedule of questions (Appendix 5.1).

Characteristics of Plantations

The rubber industrial units included in our study are 18 units in 14 different places in Kanyakumari. One industry each has been selected for study from Arasmood, Kalial, Kulasekaram, Kulichal, Manakkavilai, Manalikarai, Melpuram, Mundavilai, Thirparappu, Thirunanthik, and Arumanai whereas 2 units have been chosen from Thuckalay and Nagercoil and 3 units from Surulakodu.

Among the 18 respondents, only 7 of them are industrial owners while others are managers of various capacities. There is just one female industrial manager among them. Like the workers the owners of rubber plantation also have their respective associations. They are the Kanyakumari District Planters Association, the Tamil Nadu Planters Associations and the United Planters Association. As the trade unions are very active and powerful, they have been able to get their members much needed services and give benefits to them.

Nine of the industrial owners and managers are below 50 years of age while 7 of them are of 50-60 years and 2 of them more than 60 years.

Education of Plantation Owners/Managers. Eight of the owners/managers have education only up to Secondary School Leaving Certificate (10th standard), 3 of them are with higher secondary education (11th and 12th standard), 5 of them with bachelor’s degree qualifications and
Interview in Progress, by the Researcher
2 of them are master graduates. One of the post-graduates has graduated in business administration. Five of them have had technical training while 4 of them have acquired skills in their own specialised jobs. Exactly half of them have had no formal training in rubber industry related fields but have on-the-job training.

**Faith of the Respondents.** A majority of 12 plantation and industry owners and managers are of Christian faith while the others are Hindus.

**Family Size and Types of the Plantation Owners/Managers.** Nine of the owners/managers report one adult male member in their families, while 6 of them have 2 adult male members (including themselves) each in their families and 1 each with 3, 5 and 6 male members in their families. Ten of the owner/manager families have one adult female member each, 1 family 2 adult females, 5 families 3 adult females and the rest more than 4 adult female members at home. While 11 families have no young male members, 3 families each have 2 and 3 young male members and 1 more than 3. Likewise, 12 families have no young female members, 3 families have 2 young females and the rest more than 2 young female members.

In all, their family sizes by males vary with 7 single person families, 5 two-person families, 4 three-person families and 1 each of 4-member and 5-member families, respectively. Family sizes by females also vary similarly with 8 single-person families, 1 2-person, 5 3-person, 1 4-person, 2 5-person and 1 6-person families. Invariably all members of the families are engaged in industrial activity. There are 15 nuclear and 4 joint families among the plantation and industrial owners and managers.
Rubber Seeds

Rubber Saplings in a Nursery in Muttaikadu
Job Description of the Respondents. There are 14 families engaged in industry, 16 families also in rubber plantation and only 2 of them are involved in administrative work. One each from the families is involved in legal profession and sales.

Area under Rubber Plantation. One of the industrial managers manages only one factory. Thirteen of the 18 interviewed manage plantations of small sizes, all less than 10 acres, of which 2 each of 2-3 acres, 3 acres, and 5 acres. The four other owners/managers manage plantations of 26 acres, 40 acres, 50 acres and 85 acres, respectively. Fourteen estates have less than 1,000 trees, while one each has 1,100, 2,000 and 5,400 trees in the estates. Seven of the respondents consider their estates as big while 11 consider theirs as only small operations. Eight of the owners/managers are involved in their estates only marginally while the rest of them completely. Six of the estates collect latex, 14 of them produce rubber sheets, all of them are employed in private rubber estates and factories. Twelve of the estates have only small trees, 5 matured trees and in 10 estates the trees need replacing by cutting.

Labour Employment in the Estates. Two of the rubber estates do not employ any labour at present, whereas 7 of them employ one labourer each, 6 of them 2 each and one each as many as 3, 4 and 12 labourers in the estates. The reason for no labourer being employed could be attributed to recent establishment of rubber plantations and the plantations not requiring labourers to take care nor tap the trees.

Eleven of the estates do not have any supervisors while 7 of them employ one supervisor each. Thirteen of the estates have estate workers
employed whereas the rest employ 1, 2, 3, 4 and 7 labourers, respectively. This means that some of them do not employ any workers but only supervisors.

**Estates under Direct Care.** Sixteen of the owners/managers have indicated that the estates under their charge are directly under their management and care. Fourteen of them manage and care for only one estate each and 3 of them 2 each.

**Production and Value of Latex of Estates.** Estates under 4 of the estate owners and managers do not harvest any latex as yet while others collect varying quantities, between 300 kg to 1,200 kg. Five of the estate owners and managers report a production of less than 400 kg while the rest of them more than 400 kg. The value of production is very low in the case of one plantation, while in others the range is very high: between Rs. 2,000 and Rs. 100,000. The owners and managers report widely varying values of production that there is a lack of consistency. This cannot be easily explained away, although it may be guessed that they sell to different markets – local, regional or national and international.

**Initial Investment and Annual Costs of Plantations.** Inconsistency is also seen in the underwriting or overstating of initial investments by the estate owners and managers. The range of initial investments is Rs. 2,000 to as much as Rs. 600,000. Two each of the managers report of Rs. 25,000, Rs. 65,000 and Rs. 100,000 as initial investments made in their farms. It is obvious that in some cases this investment also includes the cost of establishing the rubber plantation from the scratch. Similarly, they report also an yearly expenditure of Rs. 2,000 to Rs. 110,000. Four of the estate
A Stand of Rubber Trees along the Road

Yet Another Stand of Matured Trees Ready For Tapping
owners/managers indicate to an annual expense of more than Rs. 100,000; 2 of them between Rs. 75,000 and Rs. 100,000 and rest less than Rs. 30,000. One estate spends as little as Rs. 2,000 as well.

Farm Maintenance and Workers' Salary in Estates. In ten of the estates managed by the respondents, the maintenance expenditure is as little as Rs. 1,500 and as large as Rs. 110,000. In many of the estates, maintenance expenditures are within the easy affordability of the owners while in some it is enormous. Workers' salary has a similar range for the year as well. Three estate owners report of disbursing salaries beyond Rs. 75,000 a year and rest of them disburse as much as Rs. 50,000 or less. About 40 per cent of the estate owners and managers pay less than Rs. 15,000 to their workers as salaries.

Transport and Protection Costs of Estates. Transport costs reported have a wide range, from about Rs. 200 to a staggering Rs. 110,000. However, only one of the estates incurs such high transport costs. Two of the managers report of Rs. 48,000 as transport expenses and rest are less than Rs. 25,000: two of the others report of Rs. 15,000 as transport and five of them less than Rs. 4,000. Expenditures on rubber tree protection and resources acquisition range from Rs. 1,000 to Rs. 110,000. Four of the estate managers report Rs. 15,000 each, two of them Rs. 25,000 each and the rest of them varying but lesser amounts.

Debts, Interests and Subsidies of Plantations. One manager has reported a debt of half a million rupees, one other Rs. 60,000 and others less than Rs. 50,000. One of the smaller estate owners has reported as little as Rs. 300 as debt. For many of the owners and managers who have taken loans,
the interests paid over the years amounted to as little as Rs. 1,250 or as large as Rs. 300,000. Four of the managers alone report having taken advantage of the subsidy given by the government to the inputs. The subsidies vary in percentages and it is 100 per cent for manure. Only three estate managers have reported the subsidy value in terms of rupees, with one each taking advantage of Rs. 1,000, Rs. 10,000 and Rs. 12,000.

**Assistance or Help from Family Members.** One of the areas explored in the study has been that of assistance or help rendered by the members of the family and how many such members help with work, management and monitoring of the plantations. As many as four family members help with work in the plantations in one of the estates. There is also an estate where only one family member offers assistance to the management. In 5 estates, 2 members each help and in 2 others 3 members each help with day-to-day affairs.

Of the estates, 2 can boast of family members taking active part in the supervision of work while 3 can speak well for administrative assistance from family members. Because of their involvement, the estate has benefited very well in terms of return from it. Good supervision has been reported from eight of the estates, ten of them showing improved income, five of them each showing good returns and incomes and good growth. These estates are able to resolve their own problems, effectively and in short term (7 estates) and in the case of 5 others, the managers have become interested in other allied activities.

**Problems Encountered by Estates and Solutions.** There are several problems encountered by the estate owners and managers. There is
A Closeup of Tappable Rubber Trees

A Tapper Makes an Incision for Tapping
decreasing input while many of them feel the increasing financial pressure. Other problems faced by the estates are low production level (1 estate), low prices (3 estates), and fall in prices of rubber products (6 estates). The managers are able to perceive the solutions for their problems. For fall in prices, they demand a protected price fixed by the government (4 managers) for the products and hike in prices of products (9 managers) so that production levels go up in response to such hikes. There are also other revealed problems, namely, inability to improve crop performance (3 managers), dropping of leaves by the tree (1 manager) and little or no investment (2 managers). In order to resolve these problems, the solutions could be fixed prices from the government with a view to provide a profit margin for the planters, improve production overall, and provision of subsidy to meet some of the expenses on inputs.

Revealed perceptions about the estates are that the expenditures on cultivation have increased tremendously (2 managers); on the other hand, there has been a great fall in prices of rubber in the market. Inputs have become costly over the years as well (3) and production has grown at very slow rate (4). For improving returns from the production of rubber, there is need to fix a minimum protected price (5) and the government must take efforts at it. For a majority, the only means of improving their estates’/industries’ performance is to increase prices of products, increase exports, improve quality of products, start new industries and improve opportunities for sale of products. Six of the estate managers are already planning for rotation of crops and one each has no plan for any change, wants to change the system of production and renovate the factory for the future.
Production and Value of Production of Estates. The production levels for the latest year (1998-99) have shown a great range, from 400 kg to as much as 2,000 kg of latex. Most of the rubber estates (10), however, have very small levels of production and therefore small value of production. The value of production for the latest year ranges from Rs. 1,300 to as much as Rs. 50,000. Only some of the estates showed consistent levels of production over the last five years, whereas others showed varying levels and hence varying value of production as well. Production in 1994-95 was as low as 45 kg in at least one estate and it was 1,100 in another, and six others producing anywhere in between. Ten of them did not produce anything at all. The value of production as reported by the eight estate managers is from Rs. 400 to as much as Rs. 26,000.

The industrial units producing centrifuged rubber report the value of products as being Rs. 1,300 to Rs. 50,000. At least three of them produce for less than Rs. 5,000; nine of them for Rs. 10,000 to Rs. 30,000 and only one of them for Rs. 50,000. Double centrifuged rubber is produced by 13 of the respondent estates and industries, with the value of production ranging from Rs. 1,300 to Rs. 27,000. Four of them produce for a value less than Rs. 5,000; 7 of them for value ranging between Rs. 10,000 and Rs. 18,000; and 2 of them for more than Rs. 25,000. The units producing cleaned latex are 12 in number and they produce latex for a value of Rs. 1,300 to as much as Rs. 60,000. While 3 of the 12 units reporting produce for less than Rs. 3,000 a year, 7 of them between Rs. 10,000 and Rs. 25,000, and one each for Rs. 40,000 and Rs. 60,000 a year. Other rubber products produced have a value of production of Rs. 1,300 to Rs. 37,500.
A Closeup of the Tapper

Making the Incision

Trade Union Flags in Front of a Large Estate
Characteristics of Rubber Industry

As there are only 7 industry owners, it becomes easy to discuss their operations explicitly from the data gathered using the schedule of questions. At the outset, it must be pointed out that the industries producing products such as rubber bands and elastic thread are closed down because of loss of revenue from the factories. This could also be because of competition. The products are not quality products due to use of poor chemicals in the production process and wide fluctuations in market. Quality of the industrial latex is poor and tax levied is high as well. Hence, there is the loss. It is for this reason, the schedule based industrial data collection is confined to a small number of rubber industry owners and/or managers. The products have a limited range, namely:

- Rubber bands
- Rubber sheets
- Elastic thread
- Gloves (surgical and electrical)

**Products** are in response to the demand of the markets. Demand is assessed through a network of agents throughout the state of Tamil Nadu. In the case of other states, the agents directly place orders with the factories and products are manufactured accordingly.

**Raw Materials, Production and Demand.** Raw materials for industries come from the rubber plantations attached to the industrial units in most cases, although occasionally the units receive raw materials from other plantations as well. Some units buy raw materials from the market.
Production of rubber products is in tune with the perceived demand for such products. The nature of demand is always known as market information is fed to the industrial managers through various market channels of information diffusion. Besides, the managers keep in constant touch with the market elements. The products are marketed by the industrial units themselves and directly in the market. There are of course middlemen who also operate with a profit motive to procure and resell rubber products in the market.

For example, Sakthi Rubber Products is one industry, which produces rubber bands. The factory produces them in response to demands from the markets, especially local. The factory collects orders for products from the local shops and their canvassing covers both large and small shops in the entire district. Sakthi Rubber Products buys latex from the local market through agents. Vivek Rubber products, producing 300 kg of elastic thread at Rs. 60 per kg, gets its raw materials from estates other than their own. Their products are quality latex using quality chemicals. There is demand for their products in the market because of the quality of products.

Market Value and Sale of Products. On an average, the 7 companies produce about 100 kg of rubber bands every week and 200 kg of rubber sheets per week. The rubber bands are valued at Rs. 55 per kg while the rubber sheets at Rs. 86 per kg. Unlike the King Rubber Factory, Sakthi Rubber Products produces 500 kg/year and the products, because of the local markets, are valued at Rs. 40 per kg. The entire production is however sold at Nagercoil. The sale is done by the factory itself. Vivek Rubber Products
sells its products in the north of India as well as in the southern states, including Tamil Nadu.

All factories sell their products throughout the state of Tamil Nadu and in other states of the Indian Union. Ahmedabad, Ludhiana, Kanpur, Coimbatore, Thiruppur, Salem, Erode, Kumbakonam and Chennai are some of the prominent places of sales of rubber and rubber products. The sales are often through their agents while there are also sales directly in the market by the factories.

**Initial Investments and Annual Expenditures.** The initial investment varies from a few thousand rupees to as much as Rs. 400,000. King Rubber Industry, Nagercoil, which has made an initial investment of Rs. 400,000, gives a breakdown on the investment as follows. Raw materials incurred Rs. 150,000, while salaries for the workers amounted to Rs. 85,000, factory management/maintenance Rs. 50,000, machinery maintenance Rs. 25,000, production expenses Rs. 10,000, labour welfare Rs. 8,000 and product sale promotions Rs. 5,000. The rest of the initial investments went into miscellaneous expenses. The initial investment is Rs. 100,000. The yearly expenditures are Rs. 10,000 on raw materials, salaries Rs. 3,000, factory maintenance Rs. 2,000 and machinery repairs, production and promotional activity account for Rs. 500 each. Vivek Rubber Products has invested an initial amount of Rs. 300,000. It incurs on an average an expenditure of Rs. 6,000 per day. The wages paid to the workers is at Rs. 50 per day.

**Current Value of Factory.** For a factory with a high investment of Rs. 400,000, King Rubber Industry has machinery worth Rs. 125,000, land
and other properties of the factory at Rs. 150,000 and other assets at Rs. 75,000. Sakthi Rubber Products has equipment worth Rs. 50,000, land and other assets worth Rs. 50,000 and other material assets at Rs. 20,000.

Expenditures on Market Related Activities. The expenditure on market related activities for King Rubber Factory is about Rs. 7,000 a year. Transport of products costs Rs. 4,000 and commission for the intermediary, advertisements and promotion of sales Rs. 1,000 each. On the other hand, Sakthi Rubber Products spends a sum of Rs. 20,000 on marketing related activities per year. Vivek Rubber Products spends as much as Rs. 8,000 on market related expenses even while paying out a rent of Rs. 3,000 on their machinery and other equipment and premises.

Factory Credits. The factory, which has invested the highest of Rs. 400,000, King Rubber Factory, has raised Rs. 100,000 from banks, from moneylenders Rs. 50,000 and from own sources Rs. 50,000. Loans are received for high interest rates of 14 to 18 per cent a year. Sakthi Rubber Products has borrowed money from individuals lending money and has invested Rs. 10,000 from the factory’s own sources. The interests are as usual high at 14 to 18 per cent per annum.

Industrial Workers/Personnel. The number of employees varies with the factories. They normally employ less than 20 workers, to keep within limits of a small-scale industry and take advantage of the incentives. King Rubber Industry, for example, employs 11 people. Six of them are males, 3 of them females and 2 children. Of the workers, only one is of the executive cadre, 2 are of middle level employees, especially office administration, and 8 are in effect the industrial workers. The workers are
Collection of Latex by a Plantation Worker

Rubber is being coagulated in trays
provided with conducive working conditions besides their salaries and perks such as the bonus. Sakthi Rubber Products has four workers, of the labour class. Vivek Rubber Products employs 14 workers, with 12 of them females. While all female workers are labourers, one of the 4 men employed is the executive cadre and the three others middle level employees.

**Working Conditions.** There is a range of good working conditions and incentives offered to the workers. There is bonus every year (8 per cent of the total salary or, in some cases, 23 days’ wages), given at the time of a festival (Diwali, Pongal, the harvest festival). Bonus is possible only when the factory makes a profit, which in turn permits the management to pay out bonus. Factory makes contributions to workers’ welfare fund, which ranges from 1 per cent to as much as 6.2 per cent of the returns, gives shares in the profit, and provides for facilities for the workers’ households, children’s education and medical expenditures. Welfare fund takes care of medical expenses, expenses on marriages and education. Vivek Rubber Products provides for facilities that enable workers to receive share from profits (bonus as 8 per cent of the salary) and also benefits to the households (credits and gifts for marriages ranging from Rs. 10,000 to Rs. 15,000).

Invariably all factories do these as part of the workers’ welfare activities. Sakthi Rubber Products has a similar practice in terms of working conditions. The factory gives a share of the profit to the workers, offers help with household amenities (television sets and other home appliances), and provides for children’s education (fees, books and incidental expenses on submission of receipts), workers’ welfare fund, bonus and medical facilities (submission of prescriptions and bills of purchase of medicines). The factory
manager however feels that the administration has not been able to provide the best of working conditions for a variety of reasons. There are entertainment facilities for the workers in the factory and they are given tea and snacks in the factory canteen at cheaper prices.

**Workers' Role in Factory Management.** In King Rubber Industry, the best they could offer for the factory would be to work as a team and small groups and help with preparing the products for sale. It is also important that the workers cooperate with the factory owners in the best possible manner. No factory has reported any unruly behaviour on the part of the workers of any cadres. The management has reported a very harmonious relationship with the workers, as workers' livelihood is also dependent on the health of the factory. This is also true of Sakthi Rubber Products.

**Problems Factories Face.** There are always several problems the factories have to deal with. First and foremost is the competition in the market for selling their products. It is extremely competitive and therefore quality of the products is the most important criterion of success. But there has been a steep increase in the cost of power. Workers are in great demand and there is often a shortage of workers. The sale of products is not fast moving and it depends on the demand of the factories manufacturing rubber products. There has been a slump in sales and decline in prices. On the other hand, transport costs have gone up. Even as other costs have escalated, the price of rubber and rubber products have come down. The factories are therefore battling to improve on all fronts.
Sakthi Rubber Products reports that the bank loans are difficult to come by. As most loans are got with the help of politicians, they are not repaid as well. A tax is paid for buying latex from the Government Rubber Plantation and hence it is difficult to get latex from the Government. Then, in the lean season of January to May when latex is not usually collected during any year, the production is stopped for a few months. Vivek Rubber Products reports of difficulties in obtaining quality latex because of its non-availability as well as the problems with the mixing of quality latex with ammonia (2.5 kg to one barrel of latex) so that the products last for at least a year.

**Production Levels and Value of Products.** Although prices have come down, the income from the sale of rubber and rubber products have gone up considerably because the factories are able to improve their production levels over the years. King Rubber Factory has shown a decline in rubber products production from 8,200 kg valued at Rs. 590,000 during 1994-95 to 8,000 kg valued at Rs. 480,000 during 1996-97 and to 6,400 kg valued at Rs. 352,000 during 1998-99. The decline in products due primarily to declining prices is shown to be affecting all the factories. Workers are the most hit because the declining incomes result in retrenchments. Sakthi Rubber Products has also seen a similar trend, with production declining over the years and the sale of it fetching smaller and smaller returns. The peak production for the factory was 3,000 kg in 1996-97 valued at Rs. 186,000 in 1996-97. The production has been halved in just about 2 years with a value of production of Rs. 67,500 in 1998-99.
Vivek Rubber Products has shown increasing production, from 40 tonnes in 1994-95 to 44 tonnes in 1998-99. The value of products has also been on the increase from Rs. 50 per kg during 1994-95 to 1996-97, Rs. 55 per kg in 1997-98 and Rs. 60 in 1998-99.

**Revealed Perceptions of Current Status of Factories.** Modern machinery in King Rubber Factory makes possible production at lower costs. There is fashion that determines the new products. There is however a continuous labour problem. But it is not insurmountable. There is therefore a setback to production, as both King Rubber Factory and Sakthi Rubber Products vouch for it. Although there are about 20 rubber industrial units, only 12 are fully operative and even they are constrained by problems they face day-to-day. The most constraining of the problems is the shortage of latex and the import of rubber/latex from other countries. Imported rubber is competitive in prices such that local products have low value in the market. As for elastic thread producers, as seen from the responses of Vivek Rubber Products, poor quality of latex is the current and serious problem leading to heavy loss for almost every industry. Vivek Rubber Products themselves do not face such problems, as they have their own sources of latex. Rarely if ever the company buys latex from other producers.

**Expectations.** The factory owners/managers suggest several steps for fulfilling their expectations of higher production with higher returns. They would most appreciate credits at low interest rates, steps towards ameliorating power shortages, and most important fair prices for rubber and rubber products. It would be helpful if the government procures the products and sells them at higher, supportive prices. According to the manager of
Sakthi Rubber Products, sales tax should not be levied on rubber products and with the import of rubber products from foreign countries there is no upward trend in the production. Competition is high. As there is no tax in Kerala, the factories here compete with those of the factories in Tamil Nadu, with a clear-cut advantage over the local factories.

The factories expect the government not only to levy taxes but also provide latex. Regulated markets may be established for dealing with rubber and rubber products. Import of rubber from other countries must be reduced, if not stopped completely. Government should provide for loans with small interest rates. Also it should fix a support price which is uniform throughout the country so that no one is favoured and everyone has the same advantage. These are endorsed by Sakthi Rubber Products and Vivek Rubber Products as well. As the Government has lifted the levy on the balls, the sports as well as its products have seen an impact. Vivek Rubber Products emphasises leniency in loan repayment as one good response from the government side.

As the Government has fixed low prices, a 10-per cent of decline for rubber and rubber products over the previous years, the dealers and agents lower the prices by 20 per cent. As for rubber bands, the products cannot be preserved for more than 35-40 days as they decay and the bands stick to each other.

**Plans for the Future.** The factories have shown a determination to produce for export to other states and other countries. Some of them have plans to install new machinery even while new machines are not easily available and increase production levels. They are also willing to spend money on the promotion of their products and sales through advertisements.
Latex is being converted into sheets by a worker.

The Sheets are drained of water and dried.
According to the manager of the Sakthi Rubber Products, we could capture the external markets only if we could stop levying tax; this could also help with capturing markets of other countries. Vivek Rubber Products is planning to set up new machinery/equipment in order to improve the quality of products further. It would help with the morale of the factories if import of thread is stopped from countries such as Malaysia and Thailand. This factory looks after the welfare of workers very well and so they are efficient. There is good relationship between the management and the workers, which the factory wants to cash in on for better performance in the future.

Cost-Benefit of the Rubber Industry in Kanyakumari District

A simple cost-benefit calculation for 4 of the 7 rubber factories has been attempted using the data given by the industry managers, for the years 1994-95 to 1998-99. The cost-benefits have been computed using data initial investment, direct costs on various items including salary/wages for the labour, credits and interests paid on loans. For want of in-depth data, the cost-benefit analysis has to depend on short-term (5-year) estimates and the results of analysis is given below. It must be pointed out that a depreciation of 20 per cent per annum has been used for machinery but otherwise no other depreciation has been taken into account. It is pertinent at this point to indicate that all factories invariably complain of lack of quality latex and chemicals and therefore lack of good support prices for the products. Naturally therefore the income from the enterprises is not high and the profit margins correspondingly low.

Comerin Rubber Products has shown a total investment of Rs. 2.248 million over the five years, fetching a total value of production of Rs. 6.792
millin. Value added is Rs. 3.744 million, which is very good for a factory employing 26 workers, including the executive and 2 middle level employees. The capital / value of production ratio is 0.33 and the capital / value added ratio is 0.60. On both the counts, the Comerin Rubber products fares better although the performance has to be improved over the years to have much smaller K/VP and K/VA ratios.

Sakthi Rubber Products has also shown higher value of production (Rs. 657,000) and higher value added (Rs. 404,000) with a total costs of Rs. 312,000 over the last five years (1994-95 to 1998-99). The performance is however poorer than that of Comerin Rubber Products as the K/VP ratio is 0.62 and K/VA ratio is 0.77. Yet again, the factory has to perform better and show better results in the near future if it has to stay open and operating.

King Rubber Factory has incurred a total cost of Rs. 2.19 million, which fetched over the five years a total value of production of Rs. 2.23 million. The value added for the five years Rs. 2.19 million, which is equal to the costs incurred in the factory. Given the fact that direct costs are equal to value added, the K/VA ratio is 1.00. This means that King Rubber Factory is just about able to keep itself afloat. To be able to survive, the K/VA ratio has to be reduced drastically. The K/VP ratio is also 0.98, which only means that the capital is 98 per cent of the value of production. This means then that King Rubber Factory is not doing as well as it should and in a few years the operation will have to be folded with such poor performances.

Gnanam Latex, Thadikarankonam, is another factory with a poor performance. The total costs is Rs. 947,000 while the value of production is Rs. 1.52 million. The value added is Rs. 573,000 for the last five years. The
K/VP ratio is 0.62 and the K/VA ratio is 1.65. While the value of production in terms of cost is high, the value added in terms of costs is very low. The factory is therefore in red. There is need therefore to improve its performance over the years. Unless this is done, it is not possible to hold on.

The cost-benefit profiles shown for the four rubber factories indicate that there are some industries, which perform well while others are not. The primary reason for poor performance is the price of products produced, no matter whether it is latex and other products such as the rubber bands, gloves and other essential products. Competition from Kerala and imports from other countries such as Malaysia and Thailand are suffocating the industries. It has been observed that out of 30 factories in the state, only 4 or 5 are able to survive the onslaught of external and internal forces. Something has to be done quickly and in short term, if rubber industry has to thrive and sustain itself and the workers depending on it.