

EXECUTIVE SUMMARY

Present and Future Market

The Sri Lanka Rubber product industry is composed of about 4,530 manufacturing organisations of small, medium, and large scale industries.

Sri Lanka is the world ninth largest exporter of natural rubber and also the major suppliers of high quality latex crape to the world market and leading exporter of solid tyres for off road vehicles, accounting for nearly 20% of the global solid tyre market. The survey data shows an impressive growth of rubber production in recent years and expansions in the rubber industry.

The agreements and schemes such as GSP scheme, FTA, CEPA & SAFTA signed recently with United State and European Union, Pakistan, India, South and East Asian countries and SAARC Countries will account to increase the market for natural rubber and products

The government has initiated few projects such as construction of International Airport at Weerawila in Uva province and Harbour at Hambantota in Southern province which open provisions to international market. In addition to that government launched a rubber cultivation project of 40,000 hectares in Moneragala district and introduce financial and other incentives for rubber cultivators under the “Mahinda Chinthana” concept.

Rubber Industry

The rubber industry is known to be a technology intensive industry. It requires trained skilled workmen who have experiences on modern machinery and equipment, mature processing technology and high level of product development to meet the global market trend.

Both companies operating in the BOI sector have displayed an impressive development in areas such as investment, transfer of technology, exports and products diversification.

Rubber production increased by 7.9 percent to 56.2 million kg during the first half of 2006. Within the industrial product sector, rubber products which contribute strongly to

the growth of industrial products account for about 8.3 percent of the total exports of industrial products with a 22.5% growth rate. Natural rubber exports contribution to the growth is 1.9% with in the agricultural exports with a 30.8 percent growth rate.

Plastic Industry

Plastic is a petrochemical based polymer. Plastic industry produces products for domestic market and export market.

The plastic industries in Sri Lanka consist of 505 industries including small, medium and large scale.

The public industry continues to grow with 8.1% increase in out put in 2005 and accounted for 2.7% of the total value of industrial production in Sri Lanka in 2005. The export performance of plastic industry in Sri Lanka has shown a substantial growth of 5.7 percent during the period 2000 to 2004. In value terms exports increase from LKR(Mn) 3,041 in 2000 to LKR (Mn) 5,345 in 2004 and total plastic production in value terms increase for LKR (Mn) 4,571 in 2000 to LKR (Mn) 6,019 in 2004. The plastic products manufactured in Sri Lanka are exported to approximately 20 countries around the world.

Employment

Rubber Industry

Sabaragamuwa and Western provinces record the highest number of rubber industries, amounting to 3944 out of 4529. It is estimated that the total employment generated with in the industry exceeds 33,095 in 2003. The total number of employees engaged in rubber industries in these two provinces is 27,938 persons. Further, statistical data indicates a high employment rate in latex dipped products industry.

There is high demand for supervisors, plant and machine operators and process workers occupation categories as opposed to the other occupational categories.

Future demand for the above occupational categories is given under the future demand sub title of this document for the period of 2007 to 2009.

Plastic Industry

Western province has the highest number of plastic industries amounting to 390 out of 505. Research data shows, the total employment generated within the industry exceeds 17,760 persons in 2003. Total number of employees engaged in this province is more than 80% of total employment.

There is high demand for plant & machine operator category as same as rubber.

Gender Distribution within the employment

It was found that the rubber sector provides employment to 18,588 and plastic sector provides employment to 5,763 in 2002 and the average man to women employment ratio of 2.5:1 and 1.5:1 in rubber and plastic industries respectively. In the operative trades 77% and 61% are males in rubber & plastic industries respectively.

Educational Level of Present Employees

The survey data implies that degree level academic qualification is considered only for the managerial level in both rubber and plastic industry sectors.

For supervisory, sales and administration occupational categories G.C.E.(Advance Level) qualification is considered in both industry sectors. However, for plant and machine operator categories G.C.E. (O/L) academic qualification is considered as the basic qualification in recruiting employees.

Training Provisions

Many rubber and plastic industries used in house training approach to train their employees as it suits their individual technical requirements and helps to mould them to the company culture.

The survey data shows that both industries prefer to provide training on specific machineries during on the job training in a hap hazard way without the benefit of a structured training plan.

Demand for persons on rubber & plastic background

Survey data clearly indicates that all large & small scale industries and 80% of medium scale rubber industries can provide employment for trained personnel on rubber technology. Similarly, all large and medium scale industries and 80% of small scale plastic industries prefer to recruit trained personnel on plastic processing technology.

Training institutes

The main training providers to the industry are:

- Plastic and Rubber Institute of Sri Lanka (PRI-SL)
- University of Moratuwa- Department of Chemical Engineering and Materials Engineering
- University of Sri Jayewardenepura, Department of Chemistry
- Industrial Development Board

A few private Plastic and Rubber industries are also conducting in-house training programmes for their employees.

The above institutes conduct training programmes at different levels. Universities conduct Diploma, Graduate and Postgraduate programmes in polymer science. PRI and IDB conduct certificate programmes most of which are short term programmes and conducted in hap hazard way.

Training requirements

The data implies that the skills and knowledge gaps are to be filled for all the occupational categories in rubber and plastic industries. Occupation categories starting from Manager Level to Plant and Machine operator level are to be provided with management competences, technical knowledge & skills relevant to their fields and occupational levels as appropriate.

The most striking evidence found from the survey is that the employees in all categories of both sectors lack required technical knowledge and skills relevant to the occupational levels. Customer service techniques are specially required to be provided to persons engaged in sales and administration.

The projected employment figures and the annual labour turnover in the supervisory category to plant and machine operator are very high for both sector due to the expansion and establishment of new industries in both sectors. As an example it is necessary to train persons for both sectors in a training institute or in the industry as apprentices. Projected employment in rubber industries for the plant and machine operator category is 949 for 2007, 1,444 for 2008 and 2,313 for 2009. Similarly, projected employment in plastic industry for the same category is 1,023 for 2007, 1,535 for 2008 and 2,528 for 2009.

In addition to the above, survey data shows a dearth of employees in support services for both sectors. Especially machine maintenance technicians die & mould design and manufacturing technicians, mechatronic technicians and electrical & electronic technicians are among them. It is necessary to train people in these occupational categories to minimize the above dearth.

Further, survey data implies a lack of professional trainers to train required skilled personnel for both sectors. It is necessary to upgrade few master craftsmen in both sectors as master trainers to fulfil this gap.

The survey data emphasized a necessity of designing systematic structured curricula to train persons in each occupational category.

Conclusion and Suggestions

Findings

The main findings of the survey regarding training needs for both industrial sectors are given below.

- Training need to be provided for all occupational categories in both sectors focusing especially on operative level & supervisory level categories due o the high demand for these occupational levels.
- Most of the industries in both sectors prefer to conduct in-house training for their own employees and also wish to employ trained people from training institutes.
- There is a lack of skilled people in support services such as die & mould design & manufacturing, maintenance of machineries required for both sectors.

- There is a lack of English language skills in employees of managerial and supervisory categories.
- There is a severe dearth of trainers / resource persons in the rubber and plastic technology or polymer science, required for the industry.
- Most of the large & medium scale industries in both sectors have training facilities in their premises and monetary allocations for training.
- Many existing programmes relevant to both sectors are unable to cater to the industry requirement in content wise & time wise.

Proposals

Proposals based on the above findings are as follows.

(1) Strengthen the existing training institutes

(2) Develop curricular to address industrial needs.

It is necessary to identify industrial requirements in both sectors and develop short term training programmes which can be implemented in rubber & plastic industries as well as in training institutes.

These curricular should be able to integrate in to apprenticeship training approach or C.B.T. approach.

It is necessary to give priority to develop curricular for plant & machine operator and workers due to high demand in both sectors.

(3) Encourage industries to support training

It is necessary to introduce financial or physical incentives for industries in both sectors to conduct structured accredited training programmes for the purpose of training people for different categories to cater to future labour demand.

This encouragement is very much essential because the expensive modern machines used in the industries can be used to expose trainees for these machines.

Implementation of Training

Most of the existing training programmes relevant to both sectors are within the Colombo district. It is needed to decentralise training facilities to other provinces to cater to industries in these provinces where many industries are located. Especially training on rubber technology need to be conducted in Western and Sabaragamuwa provinces where 87% of rubber industries are located .Therefore, providing training facilities and there by encouraging industries in these provinces to conduct training programmes is the other consecutive plan, because 82% of rubber and plastic industries are willing to promote their own training.

Training of Trainers

Training of master craftsmen / experts / trainers in both sectors need to be trained on training methodology to upgrade them as trainers to overcome lack of trainers/ resources person. Training of master craftsmen as trainers can be entrusted to TT & TR division of NAITA or NITESL in collaboration with PRI. Therefore, it is necessary to equip these two organizations in order to encourage them for this purpose.