

## **FACTORS FAVOURING SUGAR CANE INDUSTRY IN SOUTH AFRICA**

There are various factors favoring the development of sugar cane industry IN South Africa and these are physical, political and economic factors as can be looked at below:

### **Physical factors.**

**Favorable climate.** The Natal coastal belt of South Africa receives an average amount of rainfall of about 1000mm per annum which rises towards the north to about 1500mm which is ideal for sugar cane growing.

**Fertile soils.** The best soils here are the alluvial soils which are found around the river valleys of Umkusi, Buffalo and Pongola. The sandy soils and the granite soils are also good for sugar cane growing though they need a lot of application of fertilizers.

**The presence of rivers Umkusi, Umfulosi, Umgeni** which help in supplementing of rainfall in some seasons and areas through irrigation.

**Frost free conditions.** Sugar cane cannot withstand frost, therefore it is confined to a rather narrow belt extending to more than 15km inland from the coastal areas where cold season temperatures are moderate.

**Gently sloping land** has favored the use of machines and at the same time construction of infrastructures has been made easily.

**There is abundance of labour.** The skilled labour provided by the Boers and Indians whereas the unskilled labour by the Africans for example Zulu and Koisan. This has simplified work and led to increased production.

**The presence of capital** provided by (S.A.S.A), big companies and progressive farmers has led to increased production.

**The good transport network** has favored the development of sugarcane industry in south Africa. There are many routes that are used for transport for example the railway, roads and seaports like Durban.

**The presence of a local and external market.** South Africa has a rich market in countries like UK, Japan, Namibia, Zimbabwe and the local market from the natives.

**Research by the S.A.S.A company** has enabled the discovery of new methods of growing sugar cane like Rattan system and the discovery of more disease resistant varieties.

**The presence of abundant land** for the expansion of the Natal sugar works and good enough that the land permits mechanization and therefore favoring large scale sugar cane growing.

**The Government of South Africa** has put up **strong policy** and emphasis on plantation farming therefore Natal province has received capital from the government and the search for the market is the government effort.

## **ECONOMIC IMPORTANCE OF SUGARCANE IN SOUTH AFRICA.**

From the exportation of sugar the government of south Africa earns foreign exchange which has helped South Africa to diversify the economy.

Employment opportunities for a large number of people have been created especially for the Africans. This has brought in income which has improved the standards of living of the people.

It has provided basis for the diverse manufacturing industry for example from sugarcane they get sugar that is used to manufacture various other goods like pharmaceuticals, acids, explosives, alcohol, motor fuel, lubricants and many others.

It has led to the development of towns especially where sugar refining is taking place for example Durban, Shepstone, Morgate and many others.

It has also led to the development of social-economic infrastructures for example roads, railways, schools, hospitals and many others.

It has led to transfer of skills of the local community who then retire home and open up growers associations.

Promote international relations between South Africa and other importers like UK, Japan, Swaziland, Zimbabwe and many others.

## **MAJOR PROBLEMS AND SOLUTIONS.**

Inadquate rainfall especially in the main growing season. This has been simplified by use of irrigation from the main rivers for example Buffalo, Umkusi.

Diseases like the leave hopper, green leave sucker and pests like the cut leaves worm and army worms. Here great care is being taken during the planting, and spraying is done from time to time during the growing period and often the affected crop is set ablaze.

Competition from other sugar producing countries like Brazil, India and many others which leads to price fluctuations in the market. This is being checked through quality production and improvement in packaging.

Labour strikes leading to the destruction of other plantations. This is being handled through the formation of cooperatives and workers union who agitate for diplomacy in solving the workers problems.

Over production of the sugar. This is being solved by the farming organizations to set quotas. Advantage is having excess for the market stored for the future use and future production controlled.

## **RUBBER GROWING IN MALAYSIA.**

In 1980, Malaysia accounted for 45% of the world's natural rubber. However the first consignment of rubber (hevea) seedlings (0.6m) from Brazil reached Malaysian peninsular in 1876 but until the end of the 19th century, rubber was only grown on experimental basis. During the early 20th century however, the area covered by rubber expanded rapidly and today rubber accounts for 35% of the cultivated area of Malaysia and probably provides the most organized plantation in the entire world.

Rubber is also cultivated on small scale by out growers who are local people while state owned farms are basically owned and run by the Chinese. Most of the labour is provided by the Indian coolies and the Vietnamese. Rubber plantations are mainly found on the western side of the peninsular and to a less extent on the eastern side of the Island (state).

## **A SKETCH MAP TO SHOW RUBBER GROWING AREAS IN MALAYSIA.**



## **FACTORS FAVOURING RUBBER GROWING IN MALAYSIA.**

The factors involved here are physical, economical and political. However each of them affects the activity in different ways and to a different magnitude/extent.

### **Climate**

Rainfall: the mean annual rainfall of Malaysia is about 1800-3000mm and the rainfall is fairly evenly distributed throughout the year and this has favored the growing of Hevea (rubber) trees since they require rainfall of at least 1750mm.

Temperature: the mean monthly temperatures are 20-25°C and rubber receives constant temperatures of about 27°C.

Soil: rubber grows well in alluvial lowland and needs soil which is acidic. Most soils in Malaysia are not fertile but they have favored rubber growing because they are majorly deep and well drained.

Accessibility. Good road transport and railway from Melaka to Kota Bharu and Johor Bharu (southern border) close to Singapore to northern border with Thailand respectively. This has given high accessibility to all the States within rubber growing areas like Alor Setar, Kedah, Kelantan and many others and the extent of deep water harbors of Pinang and Port Dickson with Port Kelang all have made the export of rubber abroad like to Japan, France, UK and USA very easy.

Existence of vast land.: there is a vast extent of land formerly reserved for rice growing but rice failed to pick up and it was re-allocated for the production of rubber.

Government policy: after the second world war, the Malaysian government encouraged small scale rubber farmers by giving them soft loans through the association called "the rubber industry small holders development association". The small holders developed into big plantation agricultural farmers.

Research: this has prominently been going on from as far back as 1876 and has led to the improvement on the quality of rubber grown. The Hevea species from Brazil with other local types, this is undertaken by a Rubber Research Institute (RRI) found in Kuala Lumpur.

Political stability: before the second world war, Malaysia was already a fairly stable colonial economy and so has remained so since independence (1957).

Availability of cheap labour: there has been constant supply of labour from India (07%), China (26%), Thailand and Malaysia herself (58%), Vietnam and others (09%).

Availability of market: Malaysia still finds market for her natural rubber despite the rapid growth in the use of synthetic fibers. Her trade partners in rubber include USA, Germany, China, France, and many other developed countries.

Availability of capital. This was provided by the Dunlop Company and Guthries during the colonial era. After the independence, the government took over the estates.

The government contributes 40%, Chinese and Indian investors too contribute and some money is got from the ploughing back of the proceeds.

Nature of the land: the land is gently sloping which allows for good drainage and the use of machines in the plantation operations and hence improving on work speed and general development.

### **ECONOMIC IMPORTANCE.**

Foreign Exchange: Today Malaysia's rubber accounts for 4% of her export earnings and is one of the main crops, and its market is mainly with nearby countries for example USA , Britain, China, Japan and many others.

Increases government revenue through taxation thus increasing its tax base.

Improves trade relations with her partners through its exports to countries like USA, Britain.

Provision of employment for example as rubber tappers, field consultants, drivers, and many others who earn an income which improves the standards of living of the people.

Development of infrastructures. This is got from the income got from the rubber sales and used for infrastructure set-up.

It stimulated provision of social services like hospitals, schools, entertainment centers, piped and clean water and HEP.

Rural-urban migration has been reduced since rural population is restrained from migrating by the job opportunities on the rubber plantations.

Industries of various nature sprang up in Malaysia for example the shoe industry , insulating material industry for wire, pipe, tyres for cars in cities like Koluta, Taiping and many other related industries.

Urbanisation. Many important towns came up in Malaysia and some cities like Koluta, Tingi, Alorstar.

### **RUBBER GROWING IN LIBERIA.**

Liberia is a country in the tropical world where plantation agriculture is important. The major plantation crops grown in Liberia are rubber and coffee. Rubber occupies about 120,000 hectare of land of which about 50% belong to the Liberian farmers. The major growing areas are at Harbel on Farmington river near Monrovia, and Cavalla in the south east of the country on River Cavalla, by the Firestone tyre company which is an American company.

### A SKETCH MAP SHOWING THE RUBBER GROWING AREAS IN LIBERIA (WEST AFRICA)



Rubber growing in Liberia started in 1910 when the British planted 800 hectares at Mt Barclay near Monrovia but later lost the interest due to falling world prices then. The USA later came in after the failure of Henry Ford's rubber plantations at Belters and Ford lands in the Amazon basin in the 1920's due to labour shortages, diseases and transport problems which reduced the hopes of the motor industries in USA in relation to rubber supply. With immediate effect, the Firestone Company in 1926 obtained a 99 year lease in which to establish rubber plantations. Since then, rubber has played a vital role in the development of Liberia's economy.

#### FACTORS FAVOURING RUBBER GROWING IN LIBERIA.

**Climate:** the climate is suitable for the development of rubber plantation. Temperatures are fairly high that is over  $21^{\circ}\text{C}$  and rainfall is over 1500mm and is fairly distributed throughout the year.

**Relief:** the relief of Liberia where the plantations were established is fairly flat to gently sloping which makes the cultivation very easy. Besides such land nature allows good drainage of plantations.

**Soils:** the soils are very fertile which promotes luxuriant growth of rubber plants (trees) and is alluvial in nature.

The area was sparsely populated consequently very few people could be displaced.

Capital: the rubber industry in Liberia became successful because of available capital provided by the Firestone Company which is USA's company.

Labour to use over the plantations was available from the indigenous and migrant population from other parts of the nation. Skilled labour was provided by the foreigners mainly the Americans. The Firestone Company offered training of native labour usually to handle latex tapping and other casual jobs.

Transport: areas occupied by rubber plantations are supplied with a good network of roads and railway that they use to transport the rubber and the plantations are located near the coast for easy accessibility to the international marine routes.

Market was available for the rubber and rubber products and with increasing level of industrialization more markets are being attained. There is high demand for rubber in developed countries like Britain, France, Germany, USA and many others.

Presence of industries: the establishment of industries in Liberia to process the rubber was an advantage. Herbel and Cavalla the Firestone Company established industries to process the latex which encouraged the participation of even the out growers.

Government policy: the Liberian government has done a lot in encouraging foreign investors to increase in the rubber industries and also encouraging and coordinating research about rubber growing which has encouraged further development of rubber plantations.

Presence of HEP at Farmington and Cavalla rivers has also provided power useful in the establishment of the processing factories. And also the rivers provide water for transportation.

#### **IMPORTANCE OF RUBBER GROWING IN LIBERIA.**

It has provided employment to the people of the country approximately 43,000 people. 35% of the wage earners in Liberia are employed either directly or indirectly in the industries. 15,000 tappers at Firestone and Herbel.

Rubber industry has earned Forex for the country. In 1980, rubber exports constituted up to 17% of the export earnings that is 102.2 million dollars while coffee constituted about 4.5% of export earnings that is 27.1 million dollars. The exports are more as follows.

Item	Value in million dollars (1980)
Iron ore	310.2
Rubber	102.2
Logs	65.3
Diamond	33.5
Coffee	27.1
Total	600.5

Rubber growing in Liberia has contributed to industrial development in the country for example industries to process the latex have been established at Herbel and Cavalla. The latex is first coagulated by the addition of acetic acid or formic acid. Its then passed on rollers which produce sheet rubber which is then dried by smoking or sun drying.. The final product is passed in a creeping machine which produces crepe rubber ready for local use and export. Other industries are found in Monrovia which produce tyres, shoes and many others products.

The government has earned income from taxes got from large companies engaged in the plantation operations. About 70% of the rubber is produced by the large companies and 30% by the out growers. Even private individuals have earned income and thereby improving on their standards of living.

Plantation agriculture in Liberia has contributed to improvement of transport and communication facilities. There are road and railway networks from the coast to Herbel where the largest plantations exist.

Rubber plantation agriculture has also contributed to the development of social facilities in the areas where they do exist. These is because these areas tend to attract dense population of people seeking employment opportunities. This has led to the development of schools, health centers, extension of electricity to major plantation areas. These not only serve the plantations but also the surrounding people.

It has promoted the development of international relationships and understanding between Liberia and other countries. For example it has promoted friendliness with Malaysia for effective negotiation of prices on international market. Also a good number of foreign companies are engaged in rubber production in Liberia like the Firestone plantation company, the Alan L Grant and BF Goodrich and so many others.

Rubber plantation in Liberia has encouraged out growers in the same crop rubber and find market n the plantations that is they dell their rubber to the industries on the plantations.

**Despite its contribution to the economy of Liberia, rubber plantation agriculture is usually associated with numerous problems:**

Much emphasis is put on rubber growing which is being affected by price fluctuations due to the introduction of artificial rubber.

Liberia also faces stiff competition with other world producers like Malaysia, Indonesia, Thailand, Brazil and Sir Lanka who tend to out compete Liberia in the supply to the world market.

The plantations are mainly owned by foreign companies who have capital. The companies tend to repatriate the profits which affects the economic growth of Liberia.



Over relying on the production of rubber has led to usual serious famine despite the country's conducive climate.

The converting of large areas to plantations firms has led to displacement of local people. This in return affected their social way of life as there was need for adjustment to the new areas of resettlement.

Monoculture in the rubber operation leads to soil infertility which induces application of fertilizers in the long run hence increasing the cost of main farming in the plantations.

These plantations are prone to destruction by diseases, pests and possible fire out break which can cr Leads to conflict with other economic activities like other agricultural practices, mining hat is iron ore and diamond as found at Cavalla plantations .