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Other forms of development organization

The following are some other forms of development organizations:

UNESCO

THE CONCEPT OF ESTABLISHING UNITES TO RUBBER INDUSTRIES IN DEVELOPING COUNTRIES -

International Institute of Synthetic Rubber Producers
New York
United States of America

Frequently, large and extremely large chemical plants are considered indicia of a nation's industrial development. Thus, some government lenders have established petrochemical industries in their developing countries even though the execution of such programs would frighten shrewd investors in the developing countries.

Minimum size operation and market demand

A single line 20,000 ton plant is about the minimum viable operation for economic type synthetic rubber. Labor and overhead are relatively fixed and the "optional" cost per pound of synthetic rubber produced decreases as the quantity produced increases.

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available in that country, particularly synthetic rubber plant in India, can be considered as the first choice because the Indian market is open to imports from foreign firms, especially U.S.-based, and Indian oil rubber contains 1 to 1.6 percent of natural rubber by weight. This share, then, will be available for synthetic rubber (R), hydrocarbon, 1-butene, propylene, and styrene. Ideally, the selected plant should be capable of producing several of these rubbers.

The cost of raw materials for synthetic rubber plant in developing countries is relatively high. Developing countries may find it reasonable to import feedstocks.

Choosing the right rubber

Choosing the type of rubber to be produced is a question of selecting the type that meets the greatest percentage of total national requirements in the foreseeable demand pattern.

Management know-how

Management and know-how are critical. Developing countries tend to overvalue patents and undervalue technical know-how, experience and scientific management methods. Every synthetic rubber plant or business needs a continuing source of manufacturing technology. Thus, it is important to associate with a proven producer whose products meet the country's demands and who is willing to provide on-going technical assistance after the plant is constructed.

Local raw material requirements

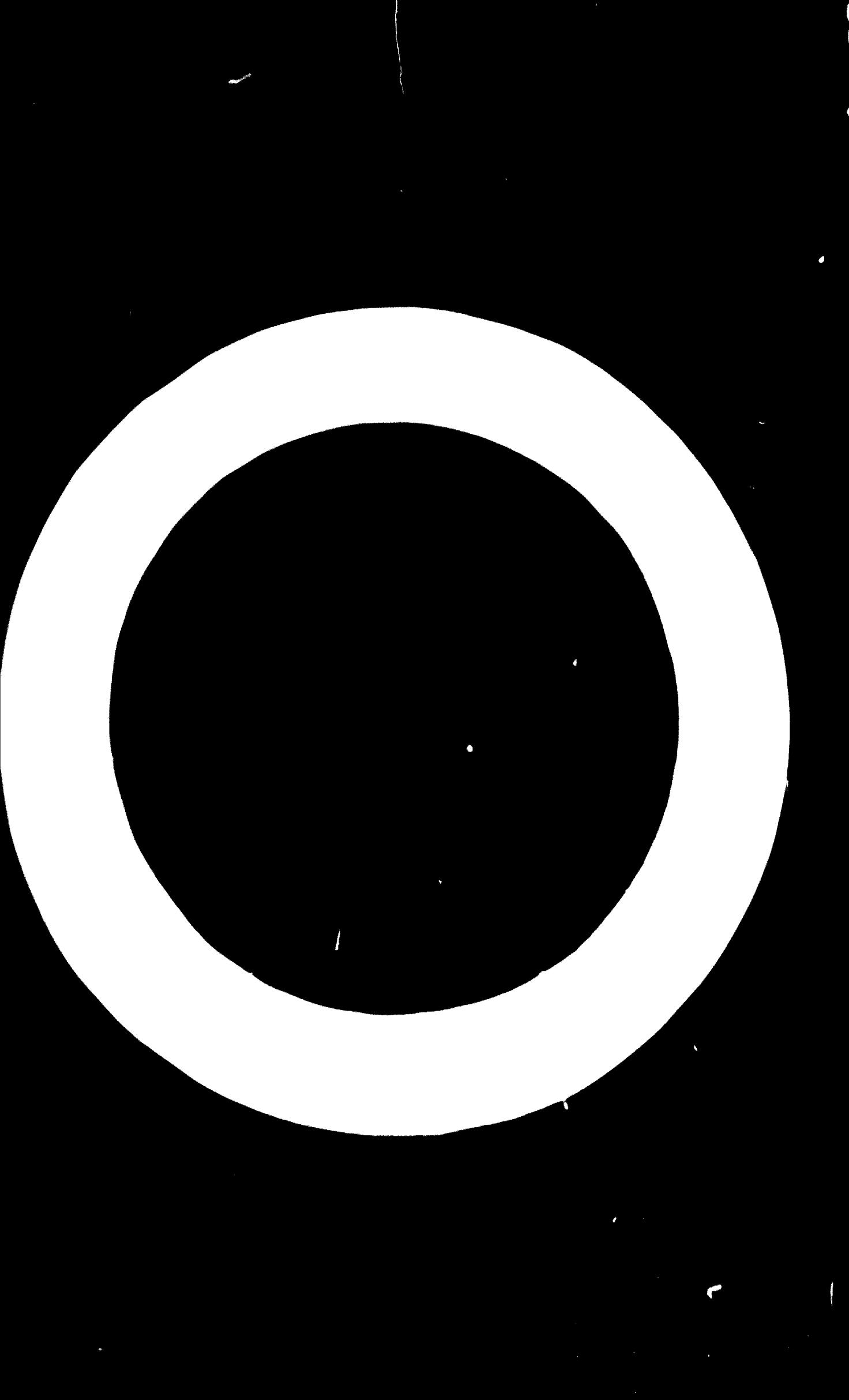
It is vital to determine whether available raw material will efficiently produce the selected rubbers to the quality standards established by local users.

Cost and the economics of a mini-mill sized plant

The economics of any rubber plant depends upon its anchor costs. Mini-mill plants can require more capital than a rubber plant and a minimum

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OCTOBER.

Inevitably, the first question that comes to mind is: "How many rubber plants will be required?" This question can only be answered by a detailed analysis of the market situation. In the Latin American countries, there is a wide variation in the quality of the rubber produced. Some countries have a large number of small producers, while others have a few large ones. The size of the plant will depend on the type of rubber to be produced and the market conditions.

However, from the point of view of economy, it is preferable to build one large plant or with contract to another company under license (or previously bought or leased) with a large plant of a type, its capacity should always be comparable three years after commissioning.

Minimum Size Operational and Economic.

Experience has generally proved that a simple 10,000 T plant in about minimum will be appropriate for initial purposes. A 40,000 T plant is probably more realistic, while during the next developed economy would insist upon larger taking up investment therein. A smaller plant requires specially built equipment thus increasing capital investment per ton of output. Since labor and many overhead items are relatively fixed, the proportional cost/tk. produced decreases as the quantity produced increases.

Caution, however, a really viable plant for cast of 20,000 T/year total material demand for synthetic rubber is 3-5% increase not necessarily justify plant construction since no one rubber plant could supply 100 per cent of the country's type requirements.

To be meaningful, the market survey must not only determine today's demand (by type) but also must anticipate the evolving demand in the future for the different types of rubber. If trucks and buses are 30 per cent of nation's vehicles, the kind of rubber required will be different from more developed areas with a higher proportion of passenger cars.

The first consideration in setting up a plant is to determine the cost of production. This is the most important factor in determining the success or failure of the plant. The cost of production is determined by the cost of raw materials, labor, overhead, and profit. The cost of raw materials is the most important factor in determining the cost of production. The cost of labor is also important, but it is less important than the cost of raw materials. Overhead costs are also important, but they are less important than the cost of raw materials. Profit is also important, but it is less important than the cost of raw materials.

Plant Size and Capacity

Plant size and capacity are two important factors in determining the cost of production. The cost of production is directly proportional to the size of the plant. The cost of production is also proportional to the capacity of the plant. The cost of production is inversely proportional to the number of units produced per day. The cost of production is also inversely proportional to the number of hours worked per day. The cost of production is also inversely proportional to the number of workers employed per day. The cost of production is also inversely proportional to the number of shifts worked per day. The cost of production is also inversely proportional to the number of days worked per year. The cost of production is also inversely proportional to the number of years the plant will operate.

Indirect Costs and Overhead

Indirect costs and overhead are two other important factors in determining the cost of production. Indirect costs are costs that are not directly related to the production process. Overhead costs are costs that are not directly related to the production process. Indirect costs include costs such as rent, utilities, insurance, taxes, and maintenance. Overhead costs include costs such as salaries, wages, and benefits. Indirect costs and overhead costs are both important factors in determining the cost of production. They are both important factors in determining the cost of production because they are both important factors in determining the cost of production.

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In a rubber manufacturing plant, the cost of production is determined by the amount of investment made in the plant. The cost of production is also determined by the cost of labor, overhead, and profit.

This is the first year they're minimum size for a rubber plant, it is not for a medium plant - and a larger plant might cost almost as much if not more than a medium plant. Thus, many of you must excepting countries will find it more economical to import rubber only.

It is true that I am right. You'll further emphasize the value of custom-made equipment which offers a unique nature in development of your plant. I note that the inventor reportedly expects to sell his rubber-making machine at a project interesting - or feasible, but I believe that it does not give the kind of return on investment.

Rubberized tires and instant tires

There are three different kinds of tire, in my opinion, I feel strongly that best for large countries are rubber plant and my private technical knowledge, experience and application methods.

A large plant is not usually changed at all, and it's tailored to conditions, so it's good to build the plant in one place. Plant-builders are very good at building a plant, but it's not good because it's comical to start the plant having to change the plant to another. A rubber plant should be built in one place and should go into an oil refinery close by the plant. Another big problem in a rubber plant - any problem - is that it's frequently too late and too costly to start the plant because of technical difficulties.

While it may be excellent, a person who has performed heart operations probably has more to fall back on in heart surgery than the surgeon who has only read books on the subject.

With a process for making synthetic rubber may be the cheapest part of going into the business. The important thing is to research yourself to develop connections with a proven producer whose product meets your standards and who is willing to prepare to provide on-going technical assistance training after your plant is on-stream. You may buy a forester and take him along with you may be able to buy a service manual and you may be able to service it yourself, but if you are going to buy an automatic highly engineered piece of equipment, there are some real

ability to have a good relationship with the other party. This is important because it can help you to build trust and respect, which are key factors in any negotiation.

4. Listen carefully

Listening is a critical skill in negotiations. It allows you to understand the other party's needs, interests, and concerns. By listening carefully, you can identify opportunities for compromise and find ways to meet both parties' goals. Additionally, listening can help you to build rapport with the other party, making the negotiation process smoother and more effective.

5. Prepare well

Preparation is essential for success in negotiations. It involves researching the other party's interests, identifying your own goals, and developing a range of options. Preparation also helps you to anticipate potential challenges and develop strategies to address them. By being well-prepared, you can increase your confidence and effectiveness in the negotiation process.

It is also important to maintain a positive attitude throughout the negotiation process. A positive attitude can help you to stay focused and motivated, even when faced with difficult challenges. Additionally, maintaining a positive attitude can help you to build rapport with the other party, making the negotiation process smoother and more effective.

Land Use Planning

Land use planning is a process of determining the future uses of land. It involves the identification of land resources, their characteristics, and potential uses. It also involves the development of plans and policies to guide the use of land in a sustainable manner.

Land use planning is important for several reasons. First, it helps to ensure that land is used in a way that is compatible with the environment. This is particularly important in areas where land is scarce or where there is a high demand for land.

Land use planning can also help to protect natural resources. For example, it can help to prevent the conversion of forests into agricultural land. It can also help to protect wetlands and other sensitive ecosystems. Land use planning can also help to promote economic development by encouraging the development of appropriate industries and infrastructure. It can also help to ensure that the needs of all stakeholders are taken into account, including local communities, businesses, and environmental groups.

Reviewing existing land use plans and policies is an important part of land use planning. This involves examining the current situation and identifying areas where changes may be needed. It also involves developing new plans and policies that reflect the changing needs of the community. This process can be challenging, but it is essential for ensuring that land is used in a sustainable and responsible manner.

Forest Management

Forest management is the process of managing forests in a sustainable manner. This involves the protection of forest resources, the promotion of economic development, and the maintenance of ecosystem health. Forest management is a complex process that requires careful planning and implementation.

1. Objectives: The first step in forest management is to define clear objectives. These objectives should be specific, measurable, achievable, relevant, and time-bound (SMART).

- ✓ Off-plot activities: Off-plot activities are those activities that occur outside the forest area. These activities include agriculture, grazing, mining, quarrying, construction, industrial activities, tourism, and urbanization. Off-plot activities can have significant impacts on forest resources, so it is important to manage them in a sustainable manner.

12/16, 1940
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~~anytime~~ and the cost of the rubber to cover overhead and profit.

1. Supply of natural rubber to market - 100,000 metric tons.
2. Price of natural rubber - \$1.00 per pound, or £1.00 million per annum.
3. Cost of plant - £1.00 million.
4. Cost of production - £1.00 million.

PLANT FOR 100,000 METRIC TONS RUBBER.

If there were no import restrictions, there should be little problem in finding a market for 100,000 metric tons of rubber over local distribution. The first large rubber plant to be constructed - probably in U.S.A. - would be competitive. However, few large producers would follow him, and it is difficult to imagine that a future order would be a convincing argument for a plant in Canada. The available market, unity competition, is too small. In addition to the U.S.A., profits are low - it is difficult to compete with local producers. This economic isn't there!

But if you can't get natural rubber - it will be even easier to create your own plant. It will be valuable to reduce production costs for home consumption - and to obtain a goodly share of your competitor's or your friend's foreign sales. If the market is not so big, then there may, if any, prospects of a large, possibly winning, synthetic rubber plant of any size to "surprise" and "overrun" to show a definite pattern of sufficient size to satisfy consumption.

However, there might be some solution which could be beneficial to both countries. The other countries whose combined total demand for a plant like yours is justified - minimum (or very large) facility could contract with the U.S. to share plant costs and plant ownership. I believe such a project proved workable since Colombia and Venezuela both wanted something like a synthetic plant. Both claim 40 per cent and put up 45 per cent of the capital, and the U.S. gave 10 per cent. Such arrangements

✓ Legal in most countries.

10/16/50

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help to keep the licensor alert to protect his interests, and the project should benefit everyone. Note, however, as a matter of sound business, most licensors want only to be interested in making an investment - even of maximum profit - unless they are given reasonable control over the management - unless they are given reasonable control over the management of the new company. This is purely a question of management proportion for the licensor's investment.

There the usual pattern doesn't justify a plant for one country alone, the capital cost could solve a real problem for both countries, and to keep everybody happy, a treaty based on such an arrangement which would be very popular, should probably involve two products and two plants - one in each country. For example, such an approach could be very realistic in arrangement between Pakistan, Turkey, etc. In which already have an arrangement covering regional cooperation for development or, between Colombia and Venezuela.

As an alternative solution - and there are those who would criticize such an approach - if the demand isn't there, and you can't work out a two or three nation production plan, you might, where such an arrangement is lawful, consider a border arrangement suggesting that one of the countries which it is your interest itself sell rubber to you on a mutually beneficial basis. If it were lawful, you might even work out an arrangement to trade one of your products, such as coffee, cacao or cotton (if more to trade on of your products, such as coffee, cacao or cotton (if profitable) operation required reduction in areas of local demand) at cost or below market price in exchange for selling synthetic rubber to you at an advantage. Such arrangements are particularly useful when there are multiple demands for foreign exchange to finance capital expansion and development.

Labor Demands

Synthetic rubber operations are normally quite highly automated. Chemical engineers are few in number and require very highly specialized skills.^{3/} The processes are complicated and the raw materials are

^{3/} For example, a 30,000 T./yr polybutadiene plant will only require 20 skilled and 12 unskilled operators, 6 shift supervisors, 12 skilled and 12 unskilled maintenance workers.

quite hazardous so there cannot be any stinting in the quality of the people and their training.

Because of the high investment per unit of labor, the portion of the developed countries economic goals must be clearly established. If the function of the industry is to create job opportunities with a minimum of capital investment, the synthetic rubber industry will not satisfy this objective.

In short, the rubber industry is a highly skilled-labor intensive industry as well as a highly capital intensive industry. If one of the objectives of the developing countries is to utilize its low cost labor to maximum advantage, the synthetic rubber industry is not going to meet that objective.

Conclusions

1. The synthetic rubber business is technologically based and its product fills a need, but the economics of the industry does not justify classifying it as a "glamour" business.
2. Generally speaking, developing countries may expect problems if they go into the synthetic rubber business with plans to compete on the export market with more efficient large plants in more developed countries against strong marketing organizations which provide technical service and war reserve stocks.
3. The mere possession of low cost crude oil or raw materials to make monomers - or of the consumers themselves, may not be sufficient economic justification for giving priority to local construction of a synthetic rubber plant in a developing country.
4. Technical and operational assistance from a qualified rubber producing company, particularly one which has built and operated plants in several countries - is invaluable during start-up, and for training in production, quality control, marketing, etc.
5. If a developing country's economic objective is to minimize employment, the rubber industry will not satisfy that economic objective because of its high capital cost per unit of labor.

6. Joint venture with another or several developing countries may be the most viable - indeed the only viable route for many countries which want to get into the synthetic rubber industry.



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