A STUDY ON TEA PRODUCTION IN INDIA

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ABSTRACT

Tea is the most consumed beverages next to the consumption of water in the world. In the year of 1835, the actual commercial tea production was initiated. For the last five decades, there is around 160 percent increase in tea cultivation in India. Based on the literature survey and data collection method, we have done a SWOT analysis on tea production in India.

KEYWORD:- Tea, production, threats, strength, weakness, opportunities

1. INTRODUCTION

About 4700 years ago, the Chinese people were the first to be aware of the tea benefits and it was mainly drunk to honor their guest and for celebrating the significance of life achievements. The goodness of tea spreaded outside the china, the South Asian and South East Asian Countries were confined about tea for more centuries. The popularity of the tea increased around worldwide, because of the colonization and the industrial revolution. Tea is considered as the cheapest beverages in the world and consumed by the people most widely and it is accepted almost by all the age group people of the society. According to a survey, there are around there are around three million cups of tea drunk daily. Tea is a natural beverage obtained from the silver tip of the tea plant. It is the two younger leaves of the plant. The tea crop requires a agro- climatic condition in tropical and subtropical climates. Tea is cultivated around 65 countries globally. Totally production of tea is around 5 billion kg per year around the world, India is one of the leaders in the world tea production which contributes more around 1.2 billion kg of tea. In the year of 1835, the tea cultivation started in Assam.

2. SWOT ANALYSIS

2.1 STRENGTH

1. Growth of tea market around the world:

India is both the world's largest producer and consumer of black tea. India is followed by the European Union, Russian Federation, China and Turkey. Being a competitive market it is controlled by a few key players. Some of the players are Unilever, Tata Tea, McLeod Russel, James Finlay and John Keells.

2. Agro- climatic conditions:

Temperature: 21°C to 29°C is ideal for the production of tea. High temperature is required in summer. The lowest temperature for the growth of tea is 16°C.

Rainfall: 150-250 cm of rainfall is required for tea cultivation.
Soil: Tea shrubs require fertile mountain soil mixed with lime and iron. The soil should be rich in humus.

Land: Tea cultivation needs well drained land. Stagnation of water is not good for tea plants. Heavy rainfall but no stagnancy of water, such mountain slopes are good for tea cultivation.

3. Labor welfare laws protecting workmen:

- It provides better life and health to workers.
- It makes the workers happy, satisfied and efficient.
- It improves intellectual, cultural and material conditions of workers and to relieve them from industrial fatigue.

2.2 WEAKNESS

- Old age of the tea bushes – nearly 38 per cent have crossed the economic threshold age limit of 50 years and another 10 per cent on the verge of crossing this limit shortly. High cost of production mainly due to low productivity, high energy cost and high social cost burden.

- Diminishing availability of workforce particularly in South India. Remote location of the plantations and transportation of teas over long distances from tea gardens to sale points. Poor infrastructure – approach roads to gardens, inadequate warehousing at ports, constrained availability of containers, placements of vessels and high ocean freight charges (due to feeder–mother vessel transfers).

- Lack of quality monitoring mechanism for teas particularly sold through private sales.

2.3 OPPORTUNITIES

- Huge domestic market
  The Indian tea is out of competition in the International market because the Kenyan tea is of quality, but cheaper. In India is widely consumed by all sections of people- poor and rich, old and young, men and women across all communities and in all the states. India is the biggest consumer of tea, but has more potential, as per capita consumption of tea is still lower than other tea consuming countries. Thus the tea industry should exploit a huge domestic market that annually consumes 1,000 million kg or 80% of tea produced in India, the largest tea producer of black tea in the world. In the year of 2009, tea consumption in India is expanded by 2.4% and 6.6% in 2013 to reach 1 million tonnes. As per a survey, the FAO perceived that the Indian domestic market for the black tea will grow by 2.2% per annum and will attain 1.03 million tonnes tea consumption annually by the year 2021.

- Scientific tea production
  The quality of the tea production is affected by the micro and the macro climate. By maintaining the required shades to the tea leaves, maintaining the proper drainage system and keeping the soil pH in the acidic range. This will reduce the risk of severe diseases and pest. Preventive measures should be adopted to avoid severe attack of pest and disease. The small scale growers are ill- equipped with scientific management practices, so they should be well trained with the scientific management practices. To reduce the dependency on chemical fertilizers, we can use In-house composting, green manuring, mulching, biofertilizers etc. Some of the ways to control pest and diseases under Integrated Pest Management (IPM) involves, neem based formulations, predators, pheromone traps, etc. The interval between the spraying and plucking must have a gap of 4-5 days to control the pest and disease to avoid pesticide residues in tea.

- Climate smart tea production
To counteract with the climate change, the industry has to adopt irrigation and drip irrigation, rain water harvesting, drought and flood-resistant planting materials. The efforts should be based on the environment restore by better resource management.

- **Mechanization of plucking**
  The laborer shortage can be overcome by using the mechanical plucking machines. It is perceived that the method of mechanical plucking reduces one by third dependency on laborers. In order to improve the tea quality, the oxidation in the tea leaves should be controlled and there should be a speedy weighing and transportation of tea leaves to factory.

- **Co-operative brought leaf tea factories**
  There are many structural changes in the tea industry over a period. The new model in the tea industry such as the small tea growers and brought leaf factories lowers the cost of production. The government should promote brought leaf tea factories in the cooperative sector. Especially in non-traditional area, there is an increase in the toe area.

- **Reducing cost of production by using renewable energy**
  Tea industry should adopt renewable energy on a large scale, to reduce the overall cost of tea production. Power cut is a common problem in India. In general the tea gardens have plenty of biomass in the vicinity, which can be use in bio gas gasifier to obtain energy which is an addition to the existing technology. The renewable energy is much suitable for the small and the medium scale industries. This energy can be used in the generation of electricity for factory, gardens, charging pumps and sprayers, mechanical plucking machines, social welfare etc.

### 2.4 THREATS

- **Lack of labor**
  Tea industry provided an employment of about 0.95 million people in 1950 while at present more than 1.2 million people are directly engaged in tea industry. There are around 10 million people who are getting indirect benefits from the tea industry. At the time of tea plucking season, temporary workers are also engaged. The common challenge in North as well as the South India is the labor shortage. The variation in the efficiency of plucking among the laborers is a common issue. Nowadays in tea garden operation, the labor cost is quite high since the tea leaves are plucked by hands. So the dependency on the labor is more.

- **Production cost**
  The wage component constitutes over 60% of the total cost of production. The escalation in input costs of electricity, pesticides, fuel, agro-chemicals and irrigation, etc which make the Indian tea noncompetitive in International market. Almost 80% of the total costs of tea production have little scope for reduction. In order to reduce cost, sometimes, longer picking cycles (15-18 days) are adopted which results in poor quality of tea production and also fetches low price and loss to the industry. Some planters reduce the cut costs by postponing the uprooting, replanting and modernization of garden, risking long term viability. Inconsistent investment is not idea for Tea industry. The laborers mostly come from socially and economically weaker sections of the society and far away from their native place. Hence the tea estate have to provide facilities like quarters, water, and social-welfare, medical benefits, hospitals, etc which incur cost.

- **Climatic change and seasonal effect**
  Tea leaves are generally very sensitive to the change the climate. Tea cultivation has its own specific temperature and precipitation requirements; therefore, change in climate is a greater threat to the tea production. Factors such as ill-timed rainfall, low rainfall, no rainfall in the crop season, prolonged dry spell, floods, increase in temperature than usual, etc. are the major challenges in almost all the tea gardens.

- **Injudicious nutrient management**
Many tea industries apply fertilizers to their farms without knowing the soil nutrients supplying capacity, species and age of tea bushes. Fertilizers use efficiency, reduced and profitability of tea gardens eroded. For better tea production, the soil pH range should be maintained in acidic range, the soil pH should be below 5.5.

If the area in which the tea is grown has a low fertility, the fertilizer application is a key management practices. The deterioration in soil health in physical and chemical as well as biological aspects is due to the application of unbalanced fertilizers.

The use of less or no manures further intensifies soil deterioration. The better solution is to apply rock phosphate along with the microorganisms like Phosphorus Solubilizing Bacteria (PSB).

- **Pest and Disease**
  Due to pest and disease, there is a loss of 10-15 percent in tea production. The integrated pest management (IPM) is not followed in most of the gardens. Most probably chemical pesticides are being used to control pest and disease of tea. But in some cases, the overdose of pesticides, pose a risk of higher pesticide residues as well as environmental contamination, disturbance of ecological balance. There is poor monitoring on the pesticide dose and the interval between the plucking and the spray of pesticides.

- **Lack of government support**
  The ups and downs of tea industry is enormous. Tea industry has a turnover of around 10,000 crores. The tea producers of India are facing many critical issues. The world trade organization (WTO) supports the flourish in tea industry. This helps them to struggle with the tea industries of other countries in the international market. The cost of inputs; including energy is becoming higher and higher every year. The financial burden escalation laid the foundation for the closure of the tea garden in the long run.

- **Quality**
  The quality of tea is reduced due to the poor quality of the green leaf. In Assam, more than 33% teas are produced from the green leaves purchased from the outside estates. Small tea growers ignore the quality of leaves they pluck. Some tea growers use sickles to harvest tea leaves. The usage of sickles to pluck tea leaves, is one of the main reason to poor quality of tea.

3. **Conclusion**
   The Indian tea industry is giving employment opportunities directly and indirectly to the nearly one percent of the population and about ten percent people. The tea industry has a good potential in domestic market. The international market should be explored by the tea industry for value added products. Some inherent problems are linked with the industry, therefore due attention is required to remove the hurdles of the tea industry to grow tea leaves.

**References**