

**TEA SUPPLY CHAIN; ITS IMPACT ON GARDEN
DEVELOPMENT: A STUDY ON SELECTED TEA
GARDENS OF ASSAM, INDIA**

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Abstract

Tea is the most popular and cheapest beverage after water. People drink tea irrespective of class and age. India is one of the biggest producers, consumers as well as exporters in the global tea market. The scenario has changed since last few years. Indian tea is losing its position due to high price and poor quality. Moreover, tea is facing tough competition from soft drinks and other beverages like horlicks, bournvita etc. in domestic market. The traditional tea industry was production oriented. Now to meet the competition, a new market orientation is emerging. Either Market creation or Market matching can strengthen the market production linkage. To meet both the approaches quality development is the only way for tea industry and it needs overall development in the estate. Behind each cup of tea, there is a very complex supply chain. The tea supply chain shows the movement of tea from garden to ultimate consumer. A sustainable supply chain management can help to lower cost and increase revenue if effectively implemented. Moreover, this chain has large impact on the development of the garden.

This paper tries to explain how tea supply chain affects in the development of the garden and quality of tea.

Key words: auction, development, industry, marketing, supply,

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Introduction

Tea is one of the most essential part of human being in urban as well as rural area and people do not hesitate to say every time is 'tea time'. Tea industry in India not only earns precious foreign exchange, but accounts for employment of millions, both directly and indirectly. It is directly responsible for economic and social development in far-flung areas where almost no other economic activity exists (Sahu, 2004). Tea industry gives a prestigious identity to India as well as Assam in the international platform. The tea production in India is divided into two geographical divisions as North India and South India. Assam and Sikkim from North India and Tamilnadu (Nilgiri), Kerala and Karnataka in South India represent Indian tea all across the globe.

Table 1: Region wise Production of Tea in India (2001 - 2011)

Region	Production in million kilograms										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Assam	453	433	434	435	487	502	512	487	500	480	505
West Bengal	186	188	200	214	217	237	236	233	221	229	226
North India	650	631	648	662	718	237	236	734	735	723	731
Tamil Nadu	132	143	166	163	158	163	160	170	169	170	170
Kerala	65	57	58	62	63	59	56	70	68	67	80
Karnataka	5	5	5	5.6	5	5.4	5	6	5.8	5.9	6.4
South India	203	206	229	230	227	228	221	246	244	243	357
All India	853	838	878	892	945	981	986	981	979	966	988

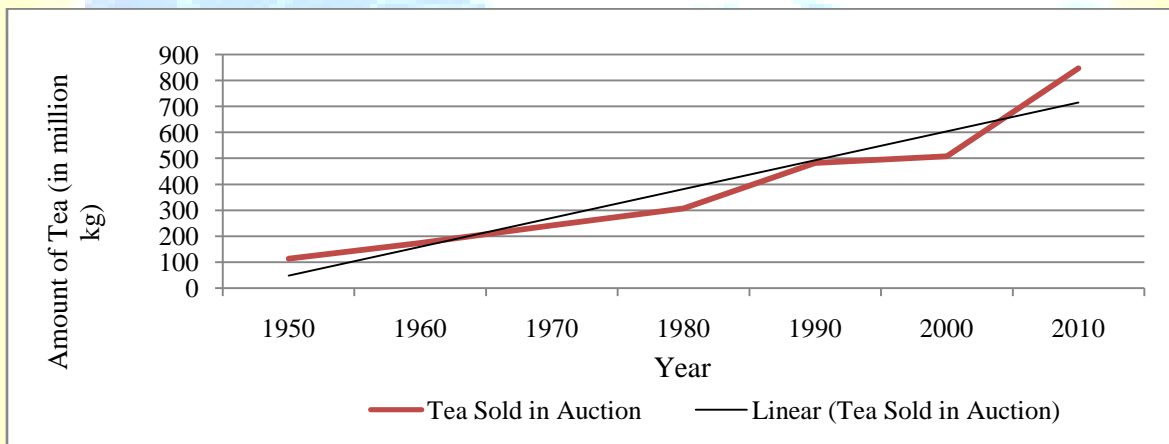
Source: Tea Board of India statistics; compiled from issues of 2011.

Earlier the industry has the constraint in meeting up high domestic consumption requirements; which now ironically is witnessing over supply of tea in the home market. Also due to quality degradation, Indian tea is losing its position in world market. Tea Board of India has started promoting and re-positioning the 'Made in India' tag in the world market to augment Indian tea export (Dutta; 2007). As last two three years in world tea market output declined drastically and the export dropped. Now the next alternative for the Indian growers is the domestic market.

The Tea Marketing

There are various modes of tea disposal like auction, ex garden sale, forward contract etc. However, in India marketing of tea directly refers to the auction system; because among these all modes auction is most preferred one. Out of 800 million kg Indian bulk packaged tea, 500 million kg (62.5 %) is sold through public auction annually (Das 2008). The participants of auction system are auction organizers, seller or producers, brokers, buyers and warehouse keepers. Here producers send tea for auction. On arrival of this tea, it is stored at registered warehouses which in turn forward “arrival and weighment report” to the brokers concerned. This report contains details of the date of arrival, grade of tea and actual weights received by the warehouse. Once the tea has been catalogued, the brokers collect samples from each lot for distribution to the buyers. Brokers also draw samples for their own tasting and valuation of tea. These valuations are distributed among buyers and form a guideline for price levels at which the tea is expected to sell.

Fig 1: Volume of Indian Tea Sold through Auction (1950 -2010)



Source: Tea Statistics, Tea Board of India

On the given date of auction, usually early in the morning auction commences. Each broker sells by rotation. Bidding starts once the auctioneer announces the lot number to be sold. Each lot is sold or “knocked down” to the highest bidder. After sale, brokers issue “Delivery order” of tea purchased to the buyer. On presentation of these documents, buyers are able to take delivery of tea from warehouse. In order to place all the teas of various qualities on a single forum and yet retain the capacity to sell large quantities at the right prices, the auction system has been found to be the most useful method. In its 174th year (since the first auction sale in 1837 at London) the auction system has clearly withstood the passage of time. Nevertheless, it is seen that here brokers are given all the power from tasting to delivering. Limited number of brokers

operates the whole system. Producers, which are the caretaker of tea, do not have any active role in auction system. The auction buyers are mostly big tea companies having their own network of blending, packaging and marketing. Many industry insiders believe that the large buyers have co-operated with the brokers on the auction floor to keep tea price low (Choudhury 2006). Hence, actual growers can do nothing regarding the price of their tea. They cannot hold on to their stocks for a long time and so have to be satisfied with the price fixed by the big buyers.

Actual marketing of tea starts after auction. This process involves blending, packaging, advertising, wholesaling and retailing of tea. In most of the agricultural produces, value addition is done at the downstream; in the higher processing and retailing stages of supply chain (Das 2008). This is also true with tea. Value is added to tealeaves at each stages of processing. As tea is ready to drink item, the downstream stages such as blending, packaging and ultimate marketing are the most profitable one. Moreover, here the big companies collect all the profit margins (Baruah 2008). Hence, supply chain management is now very significant issue in tea marketing process.

Supply Chain Management

A supply chain refers to the entire process of birth, growth and marketing of a product. Tea supply chain begins in plantation and ends at the final consumers of the retail market. A sustainable supply chain management can help to lower cost and increase revenue if effectively implemented. A key focus of supply chain analysis is the question of governance i.e. who can influence what others do? In the past; price was the main aspect to consider, but now it has been changed to quality, delivery order, reliability of the supplier etc. (Tallontire 2001). Tea supply chains are long and weakly integrated compared to many industries. The trading system of tea is complex with numerous intermediaries between the actual grower and the retailer. Here common ownership of plantations (having more than one garden), factories, blending and merchandising operations strengthens co-operation within the chain.

The Tea Supply Chain

Millions of people are engaged in producing and processing tea. Tea production has been dominated by large plantations but smallholdings are on the increase. In the simple tea supply chain tea moves from:

Tea → Garden → Factory → Auction → Buyers → Market

The tea supply chain begins in a plantation, where tealeaves are grown and plucked. Then these are either sent to Bought Leaf Factory (BLF) in case of small growers or processed in the factory of the big gardens. The processing is done in the producing countries itself because tea must be processed within hours of its plucking to maintain quality. After processing, made tea is taken either to auction or for direct marketing. In auction, buyers purchase it and the next stage is marketing after blending and packaging. Tea will generally reach the super market's shelf within 20 to 30 weeks of leaving the bush. This supply chain is the simple description of movement of tea from garden to market. However, the actual scenery is not so simple. There are many participants in every part of the above chain.

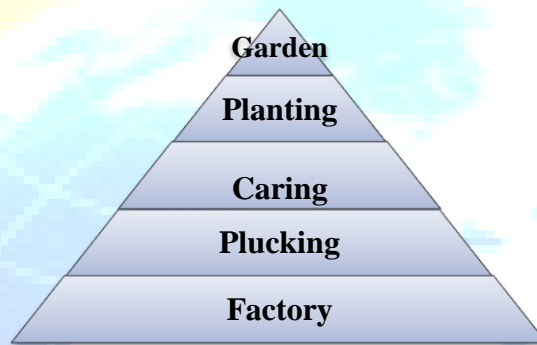


Fig2: Movement of Tea from Garden to Factory

The added complexity in tea industry is “Effect of seasonality in tea production on supply chain efficiency”.

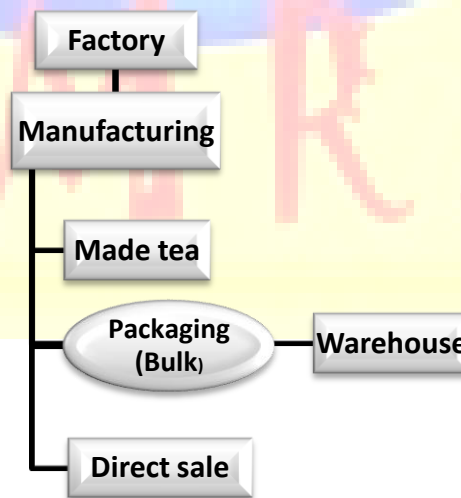
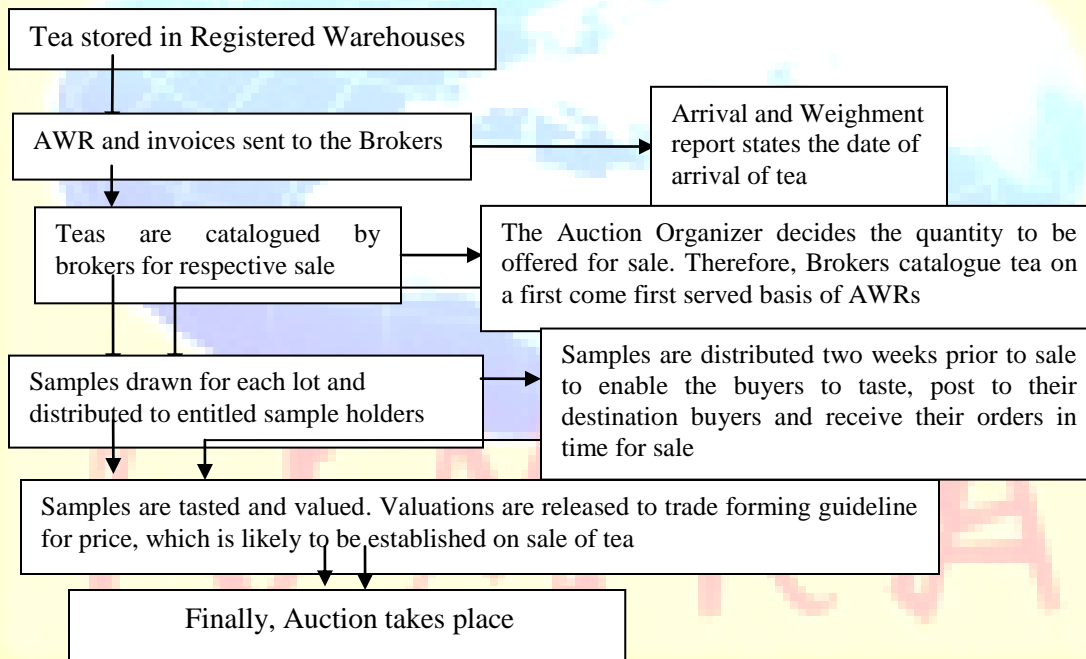


Fig 3: Journey of Tea from Factory to Market

The above figure (3) shows how tea leaves moves from factory to market. After processing in the factory, made tea is sent either for direct selling or to the warehouse for auction sale. The most complicated part of the tea supply chain is when tea passes through auction (Fig.4). Producers send their tea to the registered warehouses prescribed by the brokers. Now producers are not involved in the next steps of tea supply chain. In this part of the chain brokers are the active participants. Warehouse has to inform the brokers about arrival of tea. Brokers for tasting and valuing draw tea samples and they also send samples to the buyers. Tea is sold at the price decided at auction. Auction takes place between brokers and buyers only.

Fig 4: Movement of Tea from Warehouse to Auction



The tea market structure characterized as monopsony in the upstream sector and monopoly in the downstream sector. This structure creates a long supply chain that put smallholders at the bottom end without bargaining power and allows large corporations to influence prices. Tea prices at smallholder level that are set by exporters and processing companies change weekly while the price of packed tea that they produce are relatively stable. It is likely that the big companies influence prices at tea auctions as they buy almost 80 per cent of

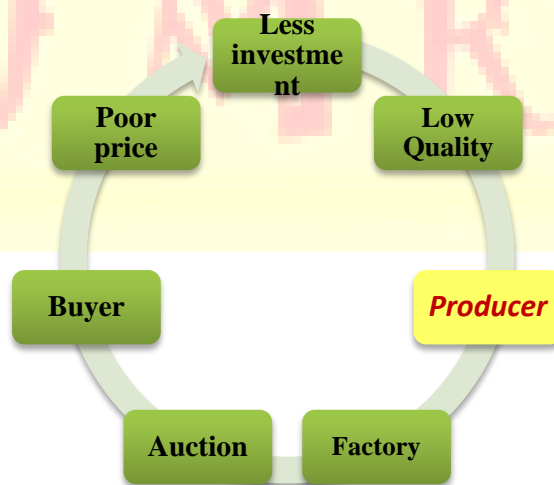
the auctioned tea. Generally, there is no structural relationship between actors in the tea supply chain. Contacts are made only during transaction and deal with specific quality and price.



Fig 5: Auction to Retailer

The impact of tea supply chain (fig 6) can be explained in a circular form. Producer is the starting point of this circle. A tea plant grows in tea estates and when it gains productive age level, leaves are plucked and send to the factory for processing. In India after processing, 65 per cent of the made tea is sent to auction. It is revealed that big buyers have the power to control the price of tea at auction and producers have to be satisfied with the price given by buyers, as they are not active participant in auction. Sometimes they get price lower than their production cost. That means they are unable to invest for the development of the garden. This has adverse impact on the quality of tea. Poor quality leads again poor price and vice versa. Ultimate result will be closer of the tea gardens. Since late 1990's around 100 tea gardens in India are closed down only due to poor price realization. These gardens were unable to meet the production cost. According to an international report on tea (Lines, 2006) the profitability of the Indian tea industry at the current level of prices, both in local and international market does not provide the way to meet the production cost.

Fig 6: Vicious Circle of Tea Supply



Source: Field Survey

Findings of the study

The word supply chain refers to the distribution channel of a product from its sourcing to its delivery to the end consumer. The study of tea supply chain gives the following findings:

- ✓ In a normal view, the tea supply chain looks very simple process of moving tea from garden to final consumer. In reality behind each cup of tea there is a complex supply chain bringing together some of the worlds most powerful companies.
- ✓ The big buyers or the big companies are the key actor within the supply chain. In the whole process of tea auction the decision of the buyers (big foreign tea companies) can better recognized than the critical contribution made by the producer to produce better quality tea.
- ✓ Producers are the 'price taker'. They give the authority of tea to concern broker and have no idea about the buyer of their tea. Most of the producers receive price below their expectation; which leads to less investment in the development of production. Unhygienic working conditions, inadequate equipments, wage cut etc. are result of less investment.
- ✓ Another problem producers are facing is imposition of standard in their product. Because some standards are imposed focusing on buyers reputation, rather than the issues related to producers.
- ✓ Poor price realization in auction leads to less investment for infrastructural development and this results degradation of tea quality, again low price for poor quality in auction and ultimately closer of the garden.

Recommendations

Based on the above observations some recommendations are made for a smooth flow of tea throughout the entire supply chain to ensure better price realization and to increase the investment on infrastructural development.

- ✓ Producer and buyers must have direct relationship. This will help to understand the requirements of each other.
- ✓ An agreement or contract should be developed between producer and buyer specifying length of the relationship; so that the producer can invest for better quality.
- ✓ A minimum sustainable price must be decided by the Tea Board or other controlling authority for every garden on the basis of quality of tea so that they can meet the cost of production.
- ✓ Auction organizers should monitor the loopholes of the auction system. In addition, effort should be made to make it more transparent.

- ✓ Organizations should be established by the Central Government, State Government or by Tea Board of India for tasting and valuation of tea. It will ensure that better will be the quality, higher will be the price.
- ✓ To enable a revival of the domestic tea industry from the downturn, Tea Board of India should take new measures related to subsidy for production, subsidy for re plantation and subsidy in transportation of tea for export.
- ✓ In some countries like Indonesia, Kenya and Sri Lanka Government bears all the infrastructural cost related to the labours. This gives a strong support to the gardens. Indian Government can also take some policies for such activities realizing the future of the industry.
- ✓ Direct marketing will be profitable for the producers than auction. Producers prefer auction regarding it as an effortless task from producer's side. However, if they think beyond the boundaries, they definitely go for some effort for direct marketing to achieve a better price.



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