Bangladesh to Become Sustainable and Resilient Tea Exporting Country Again

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Abstract: **Tea consumption in Bangladesh is increasing 3 percent per annum but its production is increasing 1 percent only. Due to not increasing tea production with the pace of increase in consumption, the title of Bangladesh as a tea exporting country has already been changed to a tea importing country. Record says only 1.47-million-kilogram tea had been exported from Bangladesh in 2011 as against 25.43-million-kilogram tea exported in 1995. Till 2015 Bangladesh exported tea but the quantum was very negligible which is below 1 million kilograms. At present Bangladesh spends US$ 70 million annually to import 30 million kg tea to meet the deficit every year. Country may save the hard-earned foreign exchange through increase in tea production from present 85 million kg to 120 million kg in order to stop importing tea, rather export tea utilizing every hectare garden land under tea plantation properly to increase yield per hectare from present 1500 kg to 2500 kg per hectare. The study aims to picturize the scenario of Bangladesh tea in the context of world tea, export and import scenario of tea and consumption of tea products in different countries in the world.**

Key Words: **Yield, Hectare, Kilogram, Home Consumption, Small Holder**

I. INTRODUCTION

Bangladesh is about to embrace the fate of certain diminish of its pride as a major tea exporting country which is quite similar with the one happened to its sugar industry once. The country which once used to export 90% of its tea is likely to experience reversal of the trend. Soaring consumption at home and sluggish production have all but ended 150 years of outbound journey for the widely-consumed beverage. Bangladesh saw the tea export volume coming down to 0.5% in recent years leading to an end of the era of competition with the tea giants such as Kenya, India and Sri Lanka. In the 1990s, Bangladesh was the 5th largest exporter of tea, but a major boost in demand eliminated the surplus. The paltry amount of exports is still made for the sake of some long-trusted and entrenched customers mainly in Pakistan and the Middle East. Total domestic consumption is around 80 million kilograms against a total production of somewhat above 85 million kilograms. The domestic consumption is abruptly increasing at rate of 3% per annum against a slow-moving rate of production at 1% per annum. Incessant loss of edge in tea exports is not the only consequence derived by the growth in domestic consumption but the failure in keeping pace with the productivity comparing to the neighbor countries. Per hector yield of Sri Lanka and India were around 2200 and 2100 kilogram respectively in 2018 where in Bangladesh it was recorded slightly above 1400 kilogram per hector. As a result of unhealthy yield per hector, manufacturing cost of per kilogram tea has gone up allowing the outsiders to do business in Bangladesh through the blessing of open economy. Insufficient investment which was only 3.80% has interrupted the growth badly in last decade while poor management in tea plantation expatiated the fall of industry. To resuscitate the industry, additional cultivable areas were explored but all went in vain due to lack of scientific approach and enduring the age-old tradition of farming and manufacturing. Bangladesh has 164 tea estates covering total grant area of 100000 hectare of land of which 49% remains unutilized. The present momentum tends to put a catastrophic impact on GDP along with costing 70 million US$ to be used for importing around 30 million kilogram of tea in order to meet the terrible deficit in domestic demand. To stabilize the price and satisfy the terrific increment of internal demand, low quality tea with substandard flavor has entered the market which made the situation worse as weekly international auction at Chittagong witnesses' withdrawal of premiere good quality tea for lack of local and foreign buyers.

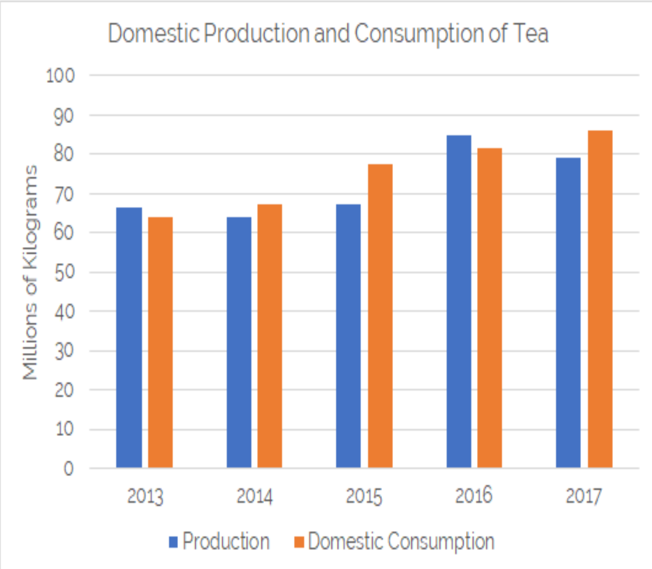
Objective

The paper aims at:

I. Examination of the present status of production, domestic consumption and export of tea of the country;
II. Exploration of the prospect of new areas for tea production; and
III. Policy measures to increase production and export as well as quality improvement, and roles to be played by the government and national bodies.

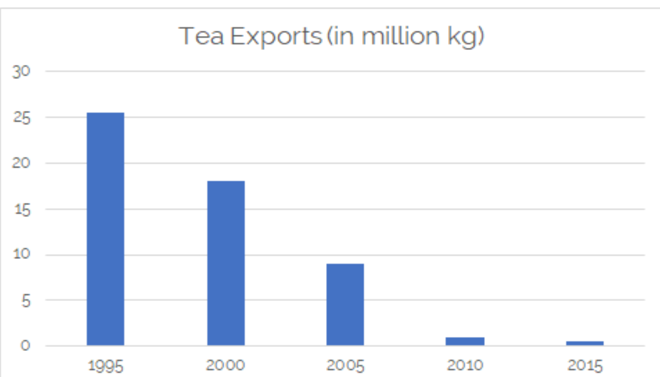
II. HOME CONSUMPTION MOUNTS

Tea in Bangladesh was mainly for export oriented in the past. As a result of increased population growth with tea drinking habit and rapid urbanization, domestic consumption has been soaring at about @ 4.10% per annum. Production of tea has been increasing at a rate of 1.03% per year, while the demand for has been increasing at a rate of 4.10% per annum over the last 15 years (2002 to 2017). Due to low level of production and higher rate of internal consumption, tea supply in the market could not keep pace with the demand. As a result, prices of teas have been increasing. Lower level of production reduces exportable surplus of tea.(Ahammed 2012)



Graph 1 shows escalating home consumption corresponding to tea production

Only recently has the industry been able to match the local demand with record-high productions in the past three years. By adopting new agricultural practices and expanding the range of tea products produced, Bangladesh is set to meet local demand fully and if production increase goes in this trend, Bangladesh will be a tea export earner once again



Graph 2 shows tea export from Bangladesh almost nil

Hypotheses of the Study:

(a.1). Exportable Surplus has been decreasing due to abrupt increase in internal consumption.

(a.2). Export has been decreasing due to decrease in exportable surplus. Therefore, production should be increased through investment to meet internal demand and to retain the export market of Bangladesh Tea.

Test of Hypothesis:

Hypothesis-I: Exportable Surplus has been decreasing due to abrupt increase in internal consumption.

The Regression Equation: $Y = \alpha - \beta X$

where Y = Exportable Surplus, X = Internal Consumption, α = Intercept,

β = Slope parameter

The empirical study shows that exportable surplus is negatively related with the internal consumption, which implies that the exportable surplus decreases with the increase in internal consumption. Thus, to increase exportable surplus production must be increased by massive investment.

Hypothesis-II: Export has been decreasing due to decrease in exportable surplus.

The Regression Equation: $Y' = \alpha' + \beta' X'$

where Y' = Export, X' = Exportable Surplus, α' = Intercept, β' = Slope parameter

The empirical study shows that export is positively related with the exportable surplus, which implies that export increases with the increase in exportable surplus and vice versa.

The empirical relation as established with the tests of hypotheses between internal consumption, exportable surplus and export shows that abrupt increase in internal consumption causes to decrease exportable surplus with low growth of production, which in turn causes to decline in export of tea. Therefore, production should be increased through investment to meet the internal demand and to retain export of tea.

Need for Development of Bangladesh Tea

Due to increased drinking habit, population growth, higher income, rapid urbanization domestic consumption of tea is rising. At present rate of population growth @ 1.6%, population will be about 182 million and our domestic requirement of tea will be about 85 million Kg and our domestic tea production will reach 120 million kg by 2025. The tea industry has the potentiality and capability to increase production. At the moment tea sector needs a substantial investment like Bangladesh Tea Rehabilitation Project (BTRP) which made a breakthrough increasing yield per hector from 900 kilogram to 1200 kilogram during their stay from 1980 to 1992 in order to produce again additional tea to the tune of 40 million Kg for meeting internal demand and retaining traditional export market up to 2025.(Ahammed 2012). Majority of tea estates in Coimbatore started production 50 years back and therefore it needs developmental activities to improve the health of the tea bushes. yielding less than the average yield of the particular gardens as well as less than the district average yield, must be ordered and to be uprooted and replanted with best available clone material.("Abandoned Tea Plantation and Related Livelihood Issues of Workers : Case of Bonacaud Plantation," n.d.)

III. FALLOW LANDS REMAIN IDLE

Currently the industry is approaching roughly with an average yield of 1240 kilogram per hector with 49% of total cultivable lands being unutilized which indicates that nearly half of potential lands are being left as fallow. Of course, in this 49% unutilized land in the tea estates, factory, labor shed, bungalows, paddy field, forest, streams are situated which are part and parcel of tea garden. On the other hand, the country possesses vast farmable area which can be extended to tea plantation. It is estimated that nearly 6,106 hector suitable land is accessible in 164 tea estates for new extension in the left over 50000-hectare grant area out of total grant area of 100000 hectare. It has become crucial to formulate some policies in order to explore the likelihoods of establishing small holding for tea plantations in the suitable areas of the country. A study unveiled that soil and climatic factors of Panchagarh and all the three hill districts have been found scientifically suitable for cultivation of tea. Avoiding all legal obligations, still it is possible to bring near 35,000 ha in Panchagarh, 46,875 ha in three hill districts of Chittagong and 3,500 ha in age old tea areas of greater Sylhet and greater Chittagong under tea cultivation in the form of small holdings. The extension of that study also uncovered that 4455 ha of land in Thakurgaon, 4,067 ha in greater Mymensingh, and 7822 ha in Chittagong and Cox's Bazar districts are suitable for small holding tea cultivation. Moreover, a substantial number of populations living under poverty line in these regions could be gainfully self-employed in small holding tea plantations.

Table 1: Tea Area, Production, Internal Consumption, Per Head Consumption, Exportable Surplus, Export and Export Earnings of Bangladesh Tea.

Year	Tea Area (In Hectare)	Production in kilogram	Internal consumption (in Million Kilogram)	Total population in million	Per head consumption in gram	Exportable surplus in Million kilogram	Export in million kilograms	Export earning in US$ (Million)
1995	47920	47.67	22.00	119.90	183	25.67	25.43	32.07
1996	48337	53.41	27.00	122.10	221	26.41	26.15	32.28
1997	48616	50.52	25.00	124.20	201	25.52	25.16	40.45
1998	48570	55.83	29.00	124.77	232	26.83	22.22	38.56
1999	48510	46.19	32.11	126.95	253	14.08	15.18	20.17
2000	48678	52.65	38.79	132.42	293	13.86	18.10	23.11
2001	49313	56.82	36.95	134.34	277	19.87	12.92	16.04
2002	50226	53.62	41.50	136.29	307	12.12	13.65	16.31
2003	50896	58.30	37.44	138.27	267	20.86	12.82	15.69
2004	51265	56.00	43.33	140.27	305	12.67	13.11	14.83
2005	52317	60.14	44.08	142.30	307	16.06	9.09	11.26
2006	52407	53.41	42.00	144.36	290	11.41	5.40	9.23
2007	53667	58.19	46.27	146.45	316	11.92	10.56	12.84
2008	54105	58.65	52.12	148.57	350	6.53	8.39	14.28
2009	54804	59.99	53.74	150.72	356	6.25	3.15	6.34
2010	55702	60.04	57.63	152.91	346	2.41	0.91	2.42
2011	56846	59.13	58.50	155.13	370	0.63	1.47	-

Sources: 1. ITC, 1981: p.85; 1989: p.108; 1991: p.116; 1994: p.114; 2002: p118; 2. World Development Report, 2003, A co-publication of World Bank and Oxford University Press, 198 Madison Avenue, New York NY 10016, USA. 2002: p. 234. 3. World Population Projections, 1994-95 Edition, Eduard Bos et al, A World Bank Book, The John Hopkins University Press, Baltimore Maryland 21211- 2190, USA. 1994. pp. 134-135.

IV. OLD PLANTS PRODUCE BARE OUTCOME

The orthodox methods used in manufacturing process have largely been replaced with the CTC. (Crush, Tear, and Curl) is a method, used to process black tea. To sustain a gainful output with quality tea, the industry had deployed the method but it hardly made any change in yield per hector as the reason was less likely involved in the process of manufacture but the outcome from the planted tree. Though Bangladesh has 164 tea estates covering about 50000 hectares under tea cultivation they are plucking tea leaves from 50% old plants that produce low yield per hector. Bangladesh has potential to produce approximately 100-million-kilogram tea annually by 2025 by adopting the policy of massive infilling, block infilling and replacement replanting the aged and uneconomic tea that yields only 495 kg/ha with improved varieties and can bring yield per hectare 2000 kg. It has already been discussed that only 50% of total land area are remaining unutilized for not being suitable for tea plantation and for mandatory utilization of land for other purpose such as paddy land, factory, bungalow, playground, graveyard, labor line etc.

V. ADMINISTRATION MAKES A MESS

As the ministry of commerce is concern about the fair price of commodity, they are not imposing any excessive supplementary duty to discourage the imports while Sri Lanka and India have imposed more than 100% supplementary duty as they have well-structured industry, capable of producing good quality tea. Due to imposing nominal duty for tea import by our government, unscrupulous importers import substandard tea from abroad and smugglers resort to bring undocumented tea across border resulting in crisis of buyers for our genuine tea in auction which remain unsold creating additional cost for warehouse rent. This is absolutely a threat to the genuine tea growers. It is not that climate and industry of Bangladesh is not suitable to produce world class tea but the pre-production tea processing in the factory have made it difficult to reach standard quality with reasonable expenditure. A very decent plucking of leaves is required to make the first stage of tea leaves processing healthier to get a quality output but workers are involved with resorting to rough plucking in order to receive some monetary gains in leaf weighment and weekly wages but ultimate loss counted by owner for producing substandard tea from rough plucking sold at discounted rate or face withdrawal in international tea auction. It is crucial that from the very beginning of plucking to packaging, the entire manufacturing process goes through some well-defined sequences and time shafts but that reality is a bit different, as existing process causes remarkable delay from steps to steps due to break down of machinery and produces low quality tea. Production cost for each factor like power and fuel, spares and stores, chest, freight, warehousing, fertilizer, insecticide, repairs and maintenance has augmented. Weeds in lands, insufficient fertilizer, absence of shade, shortage of drainage facilities including faulty pruning, pests and disease reduce tea production by nearly 22% each year. Less capacity and inefficiency of backdated machines with grater consumption of power and high depreciation cost is also contributing to increase the price.

VI. CONCEPT OF SMALL HOLDING

The tea plantation in Indonesia mostly belong to estates. They are also responsible for developing farmers at surrounding area. A program namely “core-nucleus project” are used to be implemented by involving farmers to plant crops with technical and financial aid provided by estates and the yield is sold to estate at certain price level based on affordable quality. (Yuliando et al. 2015). Although small holding tea plantation has been started in northern Bangladesh since 2001, unlike Indonesia there is no record of any of our major tea estate has done any nucleus project for small holding. But small holding in Panchagarh district and adjoining areas are contributing GDP significantly to the national exchequer by producing about 10-million-kilogram tea annually. The small holdings there needs government patronization of availing Agri-loan, maximum price at the bought leaf factory for selling their cultivated green leaf. A study unveiled that soil and climatic factors of Panchagarh and all the three hill districts have been found scientifically suitable for cultivation of tea. Establishment of small tea gardens will bring a sustainable improvement in the socioeconomic condition in those areas. More manufacturing facilities will be set up to help processing of green leaf, improve trade and other logistic services will also help to meet the internal demand and maintain an exportable surplus. Moreover, a substantial number of populations living under poverty line in these regions could be gainfully self-employed in small holding tea plantations. The scope for establishing large tea estate has come to an end. As there is no surplus land available, therefore the only possible alternatives are intensive cultivation of comparatively young and mature tea areas; extension on the available virgin areas with high yielding cultivars; uprooting and replanting on un-economic plantation; setting up small holding tea plantations in CHT, Panchagarh, Dinajpur, Thakurgaon, etc. and appropriate level of resources should be generated for improving less developed gardens. These approaches will bring a significant increase in tea production to meet the internal consumption as well as to earn foreign exchange through export of tea. (Mamun 2011)

Table 2: Distribution of Small Tea Growers at Various States in India and Bangladesh

State	Number of STGs	Area (in Hectare)
Assam	42492	41249
West Bengal	8398	9500
Tamil Nadu	61985	43157
Kerala	5999	4810
Other states	7382	8032
Total in India	126256	106748
BANGLADESH		13000 (earmarked in Panchagarh and Bandarban by Bangladesh Tea Board)

Source: Tea Board of India, 2005 Kolkata(Hazarika and Borah 2013)

VII. CONCLUSION

Tea in Bangladesh was mainly for export oriented in the past. As a result of increased population growth with tea drinking habit and rapid urbanization, domestic consumption has been soaring at about @ 3% per annum. Only recently has the industry been able to match the local demand with record-high productions in the past three years. By adopting new agricultural practices and expanding the range of tea products produced, Bangladesh is set to meet local demand fully and if production increase goes in this trend, Bangladesh will be a tea export earner once again.

Bangladesh tea had a captive export market in few countries of the world and the country was quite comfortable by exporting tea to those countries without many endeavors. The scenario has changed in recent years because of soaring home consumption, meagre rate of production increase, open market economy, emergence of new entrants in world tea market with low priced tea, trade and tariff barriers and inadequate promotional activities. Once home consumption is met with 75 million kilo tea, Bangladesh may revive its tea market for export in countries like Pakistan, Poland, and Afghanistan without any hindrance with excess production which now reached 90 million kilos. Because tea importers of those countries used to import Bangladesh tea from time immemorial till eighties of last century when home consumption at Bangladesh reached the peak of total tea production. Since India is a major tea producing country and our neighboring country has been facing decline in tea export, we may make a comparison between the reasons of tea export decline between the countries and may adopt the appropriate recommendation to increase tea export.

There are several causes for the fall in the export share of India in the world tea export market. Rising domestic consumption had been major factor inducing Indian tea producers to supply their tea in the domestic market instead offering them for exports. Besides, exports had been constrained by an abysmally low growth of production which was only 1 percent during the period 1986-2008 (Tea Statistics, Tea Board of India). Higher export price of Indian tea in comparison to that of its competing countries like Vietnam, Indonesia, Malawi and Argentina, work against India's export aspirations (Calculated from FAO Statistics, faostat.fao.org, online). Adverse tariff and non-tariff barriers imposed on the basis of several bilateral agreements and Free Trade Zones like Pakistan-Sri Lanka free trade agreement, Common Market for Eastern and South Africa (COMESA), Indo ASEAN free trade agreement etc act as constraints to India's tea exports. Besides non-tariff barriers imposed on the basis of Sanitary and Phytosanitary (SPS) agreements and Technical Barriers to Trade (TBT) also restricts India export of tea.(UNTCTAD report). Indian tea export sector has suffered considerably due to various challenges, both internal and external. Changes in the global geo-political and economic environment in the pre and post WTO period have affected the tea export market of India in the most adverse manner. Matters had been made worse in the domestic front with the growing popularity of tea substitute and the emergence of small tea growers. The government of India has taken various measures to help the tea sector of India to withstand the challenges. But there are lots more to be done to uplift the tea Industry from the present position of distress. Since India has the potential to reemerge as a leading tea exporter the need of the hour is to harness and utilize the resources, overcome the challenges and grab the opportunities provided by the new global economic order which is based on the relative competitiveness of the existing and emerging players in the world tea market.(Kumar et al. 2013)

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