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Types of Indian Tea, Production and Marketing of Traditional and Handmade Teas of Assam, India

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Abstract Teas are classified in various ways depending manufacturing process, convention, technique and market available form. An exhaustive classification based on market available forms classifies Indian teas into eleven broad categories. Assam is a place of origin of tea, wild tea plants were discovered in Assam in 1823 and tea plantations started since 1837. Some of the indigenous tribal people of Assam had the habit of drinking tea prepared in their traditional form and the Singphos call such tea as *phalap*. Entrepreneurs of small tea growers who are a major force to reckon with in Assam tea at present are producing organic (called natural) handmade and traditional forms of teas which are gaining popularity world over. Organic certification, technical guidance in production and marketing are some of the problems faced by the producers of the handmade and traditional teas who are almost entirely small tea growers. Such teas are of special character with high quality. Demand for these teas is growing both internally and in global market and has huge market potential. Entrepreneurial handmade and traditional tea producers are putting their efforts to popularize and market such forms of tea in India and globally overcoming the challenges.

Keywords Types of Indian tea; Marketing; Indigenous small tea growers; Traditional tea; Handmade tea

Background

India is a major tea producing country in the world. Indian teas are of various types and classified in many ways depending manufacturing process, convention, technique and market available form. India has a premier position in the world of tea and is next to China only in both area under tea and production of tea, and also the fourth largest country in export of tea in the world. Out of the various types of tea produced in the world, Assam and India as a whole produces most of the major types of tea. Assam tea is synonymous to the best quality tea in the world and the full bodied, strong liquor of Assam tea is unique in the world. Assam has a tradition in tea drinking since time immemorial and the present generation of small tea growers are carrying the legacy further with production of fine organic handmade teas.

1 Methodology

Data collection on traditional and handmade teas was carried out with help of structured questionnaire on personal interview and sent by mail to the sample of traditional and handmade tea producers selected randomly from various tea growing areas of Assam. The collected data were tabulated and simple analytical methods were used as the number was small.

2 Assam-Its Place in World Tea

The north-eastern state of India, Assam, popularly called as the 'land of the red river and blue hills' is famous all over the world for its tea. Since its beginning about one hundred eighty years back, the tea industry has become part of Assam's way of life with major contributions in the socio-economic sphere of the state. An analysis of development of tea in Assam depicts the socio-economic development of the state of Assam. Tea is the official state drink of the Assam and its recognition as the national drink is awaited, though it is the most popular and highest consumed beverage of India. Assam tea plants have also given birth to tea industries around the world (Baruah, 2008).



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The tea growing areas of Assam are traditionally divided into two - Assam Valley and Cachar due to difference of physiography and quality. Assam has an area of 78,438 km² which constitutes 2.4 percent of total geographic area of India. The mighty river Brahmaputra flows through the breadth of the state. The tea growing areas of the Assam Valley consists of the tea districts of Darrang, Goalpara, Kamrup, Lakhimpur, Dibrugarh, Nowgong (Nagaon), Sibsagar and the hills region of Karbi Anglong and North Cachar Hills districts. The production of Assam is predominantly CTC (crush tear curl) type along with orthodox and green tea (Baruah, 2008).

The area under tea in Assam is about 10 percent of the area under tea in the world and 7 percent of the world production of tea. India produces about 13 percent of the world tea in an area under tea of 17 percent of the world. In India, the area under tea and production of Assam has been around 53 to 56 percent consistently. In 2011-12, the total production of Assam was 581.26 million kg which was about 53 percent of India's total tea production and 13 percent of the world production. The area under tea for the same year was 322.21 thousand hectare out of India's 579.35 thousand hectare which was about 56 percent of Area under tea in India. The productivity of tea (kg made tea per hectare) of Assam is 1,804 (Assam Valley 1,859) against the all India level of 1,891. (Figures correspond to the year 2011-12, Tea Statistics, Tea Board of India). Growth of small tea growers sector since 1978 is a significant development in the tea industry of Assam and also in the socio-economic sphere of the state. According to a recent estimate, there are about 80,000 small tea growers in Assam and the small tea growers of India of about 200,000 contribute about 44 percent of the country's production.

3 Types of Indian Tea

Indian teas are classified in many ways, in general, based on the nature of classification adopted. The conventional classification of tea based on manufacturing method is of four types: black tea, green tea, oolong tea and instant tea. Some authors put *puer* tea also another type of tea. Black and green teas are further divided into several types. A classification based on the technique used in manufacturing is: traditional, handmade or handcrafted and conventional. 'Phalap' prepared by the Singphos of Assam, 'leppet tea' of the Shan tribes of Burma are the traditional forms of tea. Handcrafted or handmade teas are made in smaller quantities meticulously at the garden level generally for exclusive marketing.

An analysis of the types of Indian tea reveals a broad range of various types of tea and tea products available at market level. Through an exhaustive classification, Indian teas can be put into eleven broad categories: conventional, traditional, indigenous handmade or handcrafted, specialty tea, organic, ready to use, flavoured teas, special health teas, special blend, specially single manufacture and diversified products (Baruah, 2014).

Conventional tea: The conventional large category represents teas through normal production and manufacturing process with use of approved agro-inputs of fertilizer, pesticides, weedicides, etc. These teas can be from any of the sixteen tea growing districts of India. However, the areas with special characteristics are Assam, Darjeeling, Kangra Valley and Nilgiris. The quality of a particular region is also specific to the area and Darjeeling tea and Assam orthodox teas are protected under Geographical Indication (GI). The tea quality also varies depending on season of the year, and the main seasonal variations are first flush, second flush, rains and autumn. The various conventional types of tea based on manufacturing process are: black, green and oolong. Both black and green teas are conventionally sorted into various grades for trade, primarily based on size and are available to the consumers in loose form or blended in packets.

Teas are sorted into various grades in the producing factory according to size for trade and sold in different modes like auction, ex-garden private sale, forward contract sale, etc. This classification into grades gives identity to the teas for the convenience of marketing and the subsequent operations of blending. The final product of tea after drying ranges in size from that of a speck of dust to a leaf approximately 4 cm long and 1 cm wide. The fractions are to be brought to desired size and forms with adequate uniformity and cleanliness conforming to trade requirement. Tea is, therefore, sorted into bulk grades of roughly equal size using machine and hand sieves by winnowing and stalks picking in the factory after the final 'made tea' is produced. According to the sizes, four main kinds of tea are produced: Whole Leaf Grades, Brokens, Fannings and Dust. Each of them is further split up into grades of varying



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qualities (Anonymous, 2011). The various grades of green tea of China are Hyson, Special Hyson, Gun Powder, Special Gun Powder, Chun Mee, Sow Mee, Fannings, etc. (Ramaswami, 1999).

Traditional tea: Some tribes of Assam had a practice of manufacturing tea in traditional teas for domestic consumption, particularly the Singpho tribe of Upper Assam. Such teas known as 'phalap' are still manufactured in traditional system (has combined taste of green and oolong teas) stuffed into bamboos after partially frying in pan and then dried in wooden fire. Some recent innovation of such tea is the form of 'Phalap Tea Coin' (Baruah, 2011). *Phalap* is aged tea like pu'er of China.

Indigenous handmade or handcrafted tea: The indigenous people of the tea growing areas of Assam who are mostly small tea growers and some commercial tea gardens of Darjeeling produce meticulously handmade or handcrafted orthodox black or green teas which have a niche segment of the market. Such teas are also mostly organic in nature.

Specialty tea: There are some very special grades of orthodox tea named as silver tips and white tea, etc. which is specially manufactured with buds of leaf which produces tips only. There is scope for producing unique purple tea also in Assam as tea plants with purplish pigmentation of leaves due to presence of anthocyanin are available here in various tea plantations and in wild state.

Organic tea: The organic teas are produced by cultivation practices which preclude use of synthetic agro-chemicals in tea. Naturally produced products of biological origin, minerals and composts/ vermicomposts are used in cultivation. Bio-dynamic concept is also adopted. All types of black, green, orthodox and CTC teas are manufactured in this process.

Ready to use tea: Instant tea and commonly used tea bags are in this segment of ready to use tea.

Flavoured tea: Flavoured tea and special health teas are teas with value addition. Flavoured teas are enriched with addition of various flavour ingredients and some of them are *masala* tea (spicy mixture tea), cardamom tea, clove tea, rose tea, jasmine tea, pomegranate tea, wild flowers tea, earl grey with bergamot, vanilla and black currant, etc.

Special health teas: Both green and black teas contain numerous health beneficial properties and tea not only has numerous medicinal properties and rich in antioxidants, it is a beverage of general well-being. To enhance such unique properties of tea, certain specific plants and natural health products are value added and marketed, some of which are: green tea with *tulsi* (basil), green tea with *gin seng*, green tea with *kesar*, green/black tea with Arjun (*Terminalia cuneata*), green/black tea with fennel seeds and peppermint, green/black tea with lemon, green/black tea with pinger, etc.

Special tea blends: The blended packets which are marketed by tea companies are blends of various types and grades of Assam, Darjeeling, Dooars, Cachar, South Indian teas made by expert tea tasters. The packaging companies make own specific blends based on consumers taste and preference and they are generally available in the market. In the 2014 Nobel Peace Prize Ceremony at Oslo, where the peace prize for 2014 was awarded jointly to Kailash Satyarthi of India and Malala Yousafzai of Pakistan, a very special Nobel Museum Tea Blend was created with Assam orthodox and Chinese Keemun tea and was served in the grand banquet. The Nobel Museum Tea blend was prepared in honour of Alfred Nobel celebrating his work by Sweden base company of Stockholm in collaboration with Nobel Museum (Goswami and Agencies, 2014).

Special single manufacture tea: The various planting materials (seed *jats* and clones) used in the cultivation have distinct intrinsic, unique quality of taste and flavour. The final product of tea in a tea estate is a mixture from the various kinds of planting materials planted in the plantation. Special manufacture of single quality planting materials is also available on demand, which could be black or green and orthodox/ CTC type. Some of such exclusive single planting materials are TV (Tocklai Vegetative) 1, T3 E3, P 126, S3A3 of Assam, and Darjeeling flavoury- B 157, AV 2, K 1/1, etc.



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Diversified tea products: Diversified products of tea are available which are mostly from extracts of bio-chemical constituents of tea and it is also an area of future research. Tea contains a number of coloured components and more than 800 flavoury components, which are responsible for colour and flavour quality of tea. The components responsible for colour, flavour and taste are extracted and used in preparation of tea based bakery items like tea biscuits and tea cakes. Experimentally the antioxidant properties of green and black tea are also being utilized in preparing value-added ice cream. Bottled or canned tea soft drink, tea tablet, tea candy or tea toffee are some of the diversified products of tea attempted. Tea toothpaste already available in the market elsewhere would be another diversified product in India in the coming days. Research on the scope of using tea seed oil, natural tea colour and tea flavour is in progress. Decaffeinated tea is a form of diversified product. Some other diversified products of tea though not popular in India are: tea shoots pickle, tea shoots pickle with bamboo shoots, etc.

4 Traditional and Handmade Teas of Assam

The traditional and handmade teas of Assam have special place among the types of tea due to their exclusiveness. As early as in 1815, Colonel Latter first reported to have noticed tea drinking habit among the tribes of Assam (Griffiths, 1967).

The role of Singpho tribe in discovery of tea in Assam and early development of tea industry in the state is very significant. The discovery of wild tea in Assam was because of the Singpho tribe, and there are records of their tea drinking habit, knowledge of medicinal properties and indigenous method of preparation. Singpho chief, Beesa Gam, first showed a wild growing tea plant to Robert Bruce in 1823 which subsequently led to establishment of the large tea industry in Assam (Barua, 1992; Gait, 1984). A detailed account of tea drinking and method of preparation among the tribes of Assam in the early days is available on William Robinson's 'Descriptive Account of Assam' (Robinson, 1841).

Tea has hitherto been the favourite beverage of these hill tribes in whose vicinity the wild plant has been found. The Singphos have long known and drank the tea, but their mode of preparing it is very different from that we have already described. The young and tender leaves are first plucked and dried in the sun; by some they are exposed alternately to the night dews, and the heat of the sun for three successive days; whilst by others they are put into flat hot fans and turned about till quite dry. This done the leaves are placed in the hollow of a bamboo and driven firmly down by means of a stick, the bamboo being at the same time held in the heat of a fire, when full, the ends of the bamboos are tied up with leaves, and hung up in places where they may be exposed to the smoke of the fire. Thus prepared, the tea is said to keep good for years.

In other places, the natives have a different mode of manufacture. Holes are dug in the earth, the sides of which are lined with large leaves. The tea is then boiled, the decoction thrown away, and the leaves themselves are buried in the earth. This is done with the view of reducing the leaves to a state of fermentation; and when this has been effected, the leaves are put into hollow bamboos, and thus prepared are taken to market. When intended for use, the leaves are boiled and the infusion is drunk.'

4.1 Production and marketing of traditional and handmade teas

The present generation of the Singphos has endeavoured to make the original method of tea preparation popular abroad. The concept of making tea coins of organic tea made in that way (a mixture of oolong and green tea) has been used by entrepreneurial descendents of the present Singpho tribe. Such teas and coins made of '*Phalap*' have found buyers in export market (Baruah, 2015).

The handmade (handcrafted) teas produced in are all organic though the manufacturers who are small tea growers prefer to name them as 'natural tea' as they mostly do not possess organic tea certification. High quality and organic production are distinguishing characteristics of these teas. Such hand rolled teas of indigenous method of preparation are of black and green orthodox type. Although the entrepreneurial manufacturers prefer to call the teas they make as handcrafted, such teas were found to be hand rolled or processed in local indigenous tools and any special handcrafting was yet to be fully developed. However, out of a total about eighty thousand small tea



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growers of Assam, only a handful of them had taken up manufacturing and marketing of such handmade teas. Marketing potential is huge for such teas.

Locally available plants with insecticidal properties and cow dung, vermicompost, oil cake, etc. are used for pest control and nutrition. The manufacturing technique is all using hand for rolling in *dola* (bamboo tray) to pounding in *dhenki* (locally made foot operated wooden pounding tool used generally paddy husking or grinding), heating in iron pan and the subsequent operations of drying and grading, etc. in improvised locally fabricated machineries. Fine aroma is produced on slow heating in iron pan for a longer duration for drying. Due to its organic nature and care and attention in manufacturing in smaller quantities, the quality is distinctive, unique and liked by any tea drinker. An international NGO of Canada is particularly active in extending support to such venture and they purchase teas at a premium importing to Canada.

The organic (natural) handmade teas of Assam produced by small tea growers have been exported to Canada, North America, France and Egypt in small quantities. There are enquiries from several other countries, viz. Japan, Germany, the United Kingdom, Hong Kong, Australia, Austria, Hungary and Kenya. Apart from exporting to Canada and many other countries of the world, the handmade natural teas of Assam are increasingly becoming popular in the metros of the country, industrial areas of Assam and the neighbouring state of Arunachal Pradesh in particular. The average prices obtained by the producers of handmade teas were about INR 700-1,500 for black orthodox tea and INR 1,500-1,600 per kilogram for green tea during 2013 and 2014 which were several times higher than the average auction prices of conventional black orthodox tea and green tea at auction. With the knowledge of possibility of producing very special type of purple tea in Assam, the small tea growers could be the entrepreneurs by hand making it as availability of the right plants with high anthocyanin pigmentation would be less initially and this type of tea would cater to special category of consumers (Press Trust of India, 2014; Bolton, 2015).

4.2 Challenges and potentials of traditional and handmade teas

Proper marketing is the major problem faced by them as they are not well organized and are almost small tea growers with inadequate capital and business knowledge or experience. Difficulty in obtaining organic certification, international exposure, proper tools and machineries are some of the major problems faced by the producers of handmade teas. These are teas of niche future market and demand will increase because of increasing awareness of health benefits, special character and exclusive production. For people with increasing money power looking for something different, special and handmade and traditional teas of Assam produced with meticulous care are very attractive to them. Oolong tea which is basically Chinese domain is another area to which the handmade tea growers of Assam can diversify in future and conventional Assam tea estate has already produced and marketed oolong tea (Goswami, 2015). It has good demand in select markets. This type of tea has to be produced with fine plucking and gentle treatment of partial oxidization which is possible for the small handmade tea producers to achieve. Goodricke Group imports oolong tea from China in substantial quantity. The possibility of producing purple tea has raised tremendous expectation among the tea growers of Assam.

5 Conclusion

The traditional and handcrafted teas of Assam of the indigenous small tea growers are nowhere near the real potential. There is urgent need to take them to the niche markets around the world with a proper marketing strategy. As the tea such tea producers are mostly without adequate finance and business experience, they need consistent help and encouragement from government agencies and international exposure at this stage. Easier availability of organic certification, technical help in production process, skill development and improvement of the products, and innovations with help from experts are vital for development of this very special segment of Assam tea. They need to be organized and develop skills for which international expertise is also available. The producers of such teas should also be proactive in their approach. Innovative ideas and diversification to attractive product forms like floral, ball and early cashing on in purple teas of Assam with high medicinal properties would help them to flourish and establish in the world tea market as special category of tea.



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Author's contributions

The author is associated with research and development of the tea industry of India for more than twenty five years and is Chief Advisory Officer, Assam, Tocklai Tea Research Institute, Tea Research Association, Jorhat, Assam, at present. He is author of over 25 research papers and articles on tea published in Indian and international journals, and other publications. He is also author of four books, the most important one being 'The Tea Industry of Assam: Origin and Development'. He is widely invited to international and national seminars on tea, and has delivered key note speaker address and represented as international expert on tea from India in international conferences. His pioneering works in the field of tea include exploration of wild tea, purple tea, traditional and handmade teas, history and culture of Indian tea and specialty teas.

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