
Growth and Development of Tea Plantation**Name – Satyendra Kumar Singh****Bharati Hindi Vidyalaya (H.S), Siliguri, West Bengal**

Growth relates to self- contained , in most cases natural, increase in a particular object or organ or component over time, where development indicates spatial progress of an object ,organ or component, in most cases externally related over time. In other word, the former holds natural- temporal phenomenal increase and latter holds externally related spatial progress of phenomenon . The development of Darjeeling hill area is associated with the growth and development of tea plantation and health resorts which were the choice of the British in the past . The extension of tea gardens during subsequent years led the district to its prominence of sanitarium and tourism . Thus , the chapter contains historical background , land characteristics and tea plantation, climatic characteristics and tea plantation, pre-Independence development and growth and development of tea plantation during plan period.

(A) HISTORICAL BACKGROUND:

The history of tea cultivation in Darjeeling is a corollary of history of tea plantation in India. Although several historical tints appear in this regard, but the most widely accepted story goes back to about 1815 when British personnel noticed people in Assam drinking a kind of tea from a local plant. But, it was unconfirmed till 1823 when Major Robert Bruce was served tea as a medicinal drink by Singpho king of Assam. Major Robert Bruce managed to send some sample plants in 1821 from Assam to the botanical garden of East India company in Calcutta to confirm, but was refused. Later Lt. Charlton in 1831 sent some sample plants to Agriculture and Horticulture Society in Calcutta and it was also unconfirmed. In 1824 Mr. Scott discovered the tea plant growing wild in Assam. In 1834 Charles Alexander Bruce sent some sample plants of tea to the institution and this time it was confirmed and was declared *Camellia sinensis* (the Assam tea) on the one of Christmas . Besides , it is started that Singpho and Khamti tribes , living in these mountainous zone were using tea since 12th century .

It was 1828 when Captain Lloyed was on the mission to negotiate a land deal for East India Company with king Assam . He travelled through the forested area and acrossed a place Dorjeling, a Buddhist monastery . He apprehended the strategic importance of the ridge and on return Captain Lloyed camped six days at the place Dorjeling, a village. Under the scenic and strategic location Lloyed selected the place for a hill station or sanitarium due to the cool, clean and fresh air of the area .

The Darjeeling tea plantation history is closely attached with Dr. Campbell who was appointed superintendent of Darjeeling by the British East India Company. Dr. Campbell was transferred from Katmandu to Darjeeling in 1840. He started tea seed planting as an experimental effort in his residential backside garden 'Beachwood' in Darjeeling situated at 7000 feet (2128 M). Dr. Campbell was successful in Darjeeling tea plant and, thereby, the government in 1847 selected some spots in the area to grow plants in place of nurseries. Thus, three garden (Tukvar, Steinthal and Alloobari) were developed by the British interests to commercial scale in 1852. These tea gardens or estates used seeds that were raised in govt. nurseries. The plantation appears to have been experimental, but by the year 1856 this grew as industry, to be developed on an extensive scale. It is mentionable that the plantation developed mainly on slopes as the elevation of Darjeeling was considered not very suitable for more production. Government also made efforts to supplement the pioneers of the industry by distributing tea seeds to native cultivation. It is, therefore, the year 1856 is marked to be the establishment of commercial enterprise in tea industry in the Darjeeling district. During the year Alloobari tea garden was started by the Kurseong and Darjeeling tea company and in 1859 the Dhutaria garden was opened by Dr. Brougham. In between 1860 and 1864 gardens at Ging, Ambutia, Takdah, Pulbsering, Takver and Badamtam were started by the Darjeeling Tea and Lebong Tea companies. In 1862 the garden at Champta by James White was started. It was the beginning of commercial production of tea in the Darjeeling district and by 1866 the number of tea estates increased to 39, producing 21000 Kilograms of tea. The number of gardens increased to 56 in 1870 producing about 71000 Kgs. of tea. By 1874 tea in Darjeeling was found to be a profitable venture and it grew to 133 gardens, spread over 6000 hectares.

Subsequently the number of tea estates, and the area under tea plantation grew to 175 in 1885 with 38499 acres area. The maximum number of gardens was recorded in 1895 when it rose to 186 with 40692 acres of land under tea plantation continued, but the number of tea gardens decreased in 1905 and 1943 with land acreage of 50618 (20450 hectares) and 52076 (21075 hectares) respectively. However, after Independence the same trend continued with decrease in number of gardens and increase in plantation area. It is because of the fact that all suitable and available land for it has been coalesced, while the number of garden has been reduced because of amalgamation of several tea estates. Now the number of tea gardens goes down to 87 in the Darjeeling district.

(B) LAND CHARACTERISTICS AND TEA PLANTATION : The production of a good quality tea needs several geographical conditions, like land or soil, weather condition, blights and management. Among all these factors, land or soil holds priority in importance for tea plantation, growth and production of tea. The district of Darjeeling rests in mountainous region of lower Himalaya where a variety of soils constitutes its surface. The formation of soil is controlled by the parent rock materials that lie below the surface. Since it controls the texture and contents, the growth of plants is guided by the characteristics of soil. In this regard the greater portion of hilly area lies on Darjeeling gneiss which most commonly decomposes into a stiff reddish loam. The colour of the soil is due more to wide diffusion

than other contents . It is found that almost everywhere the soil is residual on account of weathering of the underlying rocks . However , the podzolic soils in the hilly areas are the most suitable for cultivation of tea . It is mentionable that the brick – red coloured clayey loam soil accommodates most of tea plantation areas found on the surface of the drift – formed piedmont region .

Another characteristic of the land that leads to tea plantation is its topographic nature which facilitates slopes for its suitable growth . The slope characteristic provides facilities to flow water without logging at the roof of tea plants. Mr. Jackson in 1852 reported that “I have seen several plantations in various stages of advancement, both of the Assam and China plant , and I have found the plants healthy and vigorous, showing that soil is well adapted for cultivation ¹. The humid weather condition without waterlogging in tea gardens provides a suitable environments to tea plants . Therefore , tea gardens at higher elevation avail the most suitable condition as regards the water logging problem and production of tea . Nearly all the slopes are now under tea with exception of the portion to the north – west of Little Rangit river . The land condition affects the growth as the tea at lower elevation produces the large crops , but at higher elevation quality of tea leaf differs . There is a great difference of leaf in the hot damp weather of lower valleys and tarai , and the tea crops at higher elevation where quality of leaf goes better. The cultivation of tea is, however, so prominent in the whole tract that two—thirds of the rural population are resident on tea plantation. The Tarai also contains a number of tea plantation areas along the foot of the hills.

(C) Climatic Characteristics and plantation :

J.D.Hooker² , the specialist of Himalayan botany has divided the district into two zones. These botanical zones are divided on the basis of nature, growth and characteristics of plants and trees. The lower is tropical zone which ranges up to 5000 feet (1524) above sea-level and the temperate zone which range above 5000 feet.

Both the zones characteristically carry climatic environment that contributes to grow the plants. However, the climatic suitability prevails over the growth and nature of plants in area. The climatic conditions of the Darjeeling district provide the most suitable environment for tea plantation, supplemented with land form suitability. This natural condition attracted the British long ago and over time area developed as one of the biggest producers of quality tea in the world.

The main factors of the Darjeeling district climate observe wide difference in altitude, powerful effect of the monsoon against the Himalayan barriers and the peculiar configuration which deflect winds and effect local temperature and rainfall. Thus, the climatic characteristics of the district get place under these geographical conditions get regulated accordingly. It is mentioned that “the development of industry in the hills has been more rapid as the suitability of the soil climate to the growth of tea became apparent”³. Since the rainfall varies greatly in different parts of the district because of tea plants also get

varying quality. The temperature also varies as the elevation differs and, thus the, tea plants also vary from lower tea gardens to the gardens of upper reaches. The fields of lower plants, particularly in valley areas have tropical temperature, amply affect the growth and quality of tea plants and their leaves. It is this condition that differentiates growth, distribution, production and quality of tea between the tea plants at higher elevation and tea plants of Tarai region.

It is found that lower areas tea plants have comparatively bigger size leaves than the higher areas tea plants with greater production. On the other hand, the tea plants of higher elevation areas have relatively smaller leaf, but with better quality. However, it is mentioned, “there is a great profusion of leaf in the hot damp heat of the lower valleys and the Tarai, but on the other hand, though the crop is smaller at higher elevations, The seasonal change not only affects production. It is a generally recognized fact that the tea produced during the rainy season are watery and poor.”⁵

(D) Pre—Independence Development:

The historical background of development of plantation in India dates back to the arrival of the British in Assam and subsequently in Darjeeling hilly region, although the cultivation and brewing tea in India bears application in traditional systems of medicine. Tea is indigenous to eastern and northern for thousands of years by the local tribes. It is stated that during 12th century the Singpho and Khamti tribe, living in north – eastern hills, used to consume tea. On the other hand, it is said that tea was first discovered nearly 5000 years ago in China and, there for, is known as Sinensis. It is also said that tea is indigenous to both India and China.

Dr. Campbell is known as the pioneer of modern tea plantation in the Darjeeling district. Darjeeling was signed over to the British in 1835 by the Raja of Sikkim. Dr. Campbell was transferred from Kathmandu to Darjeeling in 1840 and there he started experimental growth of tea in his back of residential campus at Darjeeling. He planted tea seeds and seedlings from Calcutta’s Botanical Gardens and was successful to produce on large scale at his residential elevation of 7000feet (2130 M). The attempt of Dr. Campbell explored the possibilities of introduction of tea culture in India. Later on Mr. C.A. Bruce traced the tracts of wild tea as far as the borders of China, which gained more economic viability, but Dr. Campbell’s plants of China and Assam varieties displayed better leaves, blossoms and seed. It was then obvious that growing conditions in the region were ideal for tea, and thereby, Darjeeling rapidly grew as a major producer for the English market. The first commercial tea plantation in the form of garden started by the British was in 1852 and in 1860 it grew to three tea estates – Tukvar, Steinthal and Allobari. (table. 1).

Table-1.1

Pre-Independence Development of tea Estate

Sl.no.	Years	No. of Gardens	Area in plantation	In hectares & acres
01	1852	01	4.32	10.67
02	1860	04	-----	-----
03	1866	39	3000	7413.0
04	1870	56	4400	10872.0
05	1874	113	11000	27181.0
06	1885	175	-----	---
07	1895	186	19671	48692.0
08	1905	148	20450	50618.0
09	1943	142	21075	52076.32

These three tea gardens used seeds from the government nurseries. During this period Darjeeling was a small village with a few populations and the place was mostly used as British resort and sanitarium. But as the requirement of labourers due to commercial tea plantation grew, the labour class population started to increase.

It is obvious from table—1.1 that increase in number of garden or estates over 91 years period, from 1852 to 1943, is substantial to the tea industry in the Darjeeling district. The period has also observed corresponding increase in area of plantation which rose nearly 10 acres in 1852 to 52076 acres in 1943. This increase in both the number and area in tea estates substantiates the growth in tea industry over time. Since the British plantation in the Darjeeling district, they intended to grow a variety of tea plants even from China and develop their areal extent in tune with the commercial aptitude.

(E) Post ---Independence Development:

India's Independence in 1947 brought several changes in industrial organization as the ownership of many industries passed on from the British to the Indians. Thus, Post—Independence India sought to set industrial development which was marked with beginning of the Indian Industrial Policy Resolution in 1948. The subsequent formulation of policies in 1956, 1991 and 2008 led the industries to promote substantially. The initiatives led the industry to the prominence of high quality production and ample foreign exchange. It also envisaged private sector to co- exist with the state and thus to give the policy framework flexibility. The post – Independence period accelerated the development of the industry in the field of quality production, investment, trade and export, provision of loan etc. to promote the industry. This way, the independent India proclaimed the economic development by promoting industries through policies, mentoring or providing provision to industrial loans to develop various industries, both in public and private sectors.

However, it is indisputable fact that the economic development of the Darjeeling district, particularly hilly region, conceded with the development of tea plantation. But, after Independence the development of tea plantation faced a situation of depression affecting the economical development of region. Although tea plantation still employs skilled and non- skilled labourers , but after Independence the overall economic developments affected tea plantation adversely , and the number of tea estates decreased subsequently from 142 in 1943 to 87 in 2007 . On the other hand , the number of gardens decreased over time , but the area of tea plantation remained almost same . This phenomenon played an important role on the socio – economic front also , and the tea plantation sustainability declined to accommodate the population further . The growth in workers population resulted into unemployment in tea plantation gardens and the Darjeeling tea industry faced unsustainable livelihood for plantation workers . Secondly , the overall competition in tea industry in India and abroad created situation to increase tea – prices as the production and trade cost demanded it .

Table—1.2

Post-Independence Tea Plantation

Year	No. of Tea Estates	Area in hactaeres	Area in acres
1951	138	6693	16569
1971	97	7376	18258
1982	84	7272	18000
1985	86	7272	18000
2000	86	7272	18000
2001	87	17453	43126
2002	87	17463	43151
2003	87	17580	43440
2004	87	17522	43296
2005	87	17539	43338
2006	87	17542	43346
2007	87	17542	43346

It is evident from tables- 1.2 that number of tea gardens substantially decreased from 138 in 1951 to 87 in 2007, but the areal extent fluctuated very little. It is because of the fact that after Independence several tea gardens wear sold or wear transferred to be merged with other tea estates. So, the area over all remained almost constant and the tea – estates number decreased.

(F) Geo—Ecological Impact of Tea Plantation:

The post arrival period of the British in the Darjeeling Hill region witnessed fast depletion of its resources, particularly the destruction of forests. It was due to the initial stage of tea cultivation which observed cutting of trees to promote plantation, but later the further expansion of this cultivation resulted into large areas of land clearing for tea plantation. This phenomenon of forests clearing continued for a long period, but after Independence, the cutting process of tree slowed. The area bore a forest cover of valuable trees which produce timber for multipurpose used, and therefore, the trees are still cut, but from Limited quantity and area as they have been reserved under protection Act.

As the population grew in the hilly areas, the forests got cut for various purposes, such as construction of houses, fuels etc. Forest were also cut for other reasons which most importantly includes the legal and illegal trade of logs. The economic importance of timber gave way to the commercial use outside Darjeeling area and were transported through down flowing rivers of the area. The transportation of logs through rivers resulted into low transport cost and high economic benefit. This way the number of timber bearing trees decreased and consequently the dense forest converted into sparsely converted areas. Altogether the hilly region faces an ecological imbalance which is outcome of long way deforestation over time.

Reference :

1. O ' Malley , LSS (2007) Bengal District Gazetteers , Darjeeling , P 91 – 92 .
2. Ibid , p. 48
3. Ibid ,p . P,93 -94
- 4 . Ibid , P. 98
5. Ibid,P.98