

“Growth of Oil Industry in Colonial Assam”

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I. INTRODUCTION

The treaty of Yandabo (1826) which was signed at the end of the first Anglo-Burmese war marked the beginning of British colonial penetration into Northeast India. The annexation of Lower Assam in 1828 provided the British with a firm foothold that enabled them to extend their suzerainty in the region very quickly. Within a decade the neighboring

region were under the rule of the British government. Colonial penetration into Assam and the neighboring hill areas was accompanied by succeeding political, economic, and social changes resulting in a spectacular transformation within a very short time.

The nineteenth century is a very significant period in the history of Assam. The British rule brought significant changes in the nineteenth century. Colonial in Assam brought a succeeding changes not only in economy and polity but also society and cultural as well. In that time tea plantation, coal mines, oil refineries and railways all undoubtedly implied significant changes but the industries or industrialization did not create links within the region. The development of the tea, coal and oil industries was based on British capital and worked under European management. These industries augmented the process of strengthening British rule in the region. The most important factor in the growing prosperity and commercial importance of Assam has been the expansion of the different industries like coal, and oil which were established by the British in colonial Assam. The industrialization improved the transportation and communication network later on.

Occurrences of petroleum in Assam were noted by British officers like Captain Wilcox, Jenkins, Dalton and Meddlicot in the first part of the 19th century. By 1865 the importance of petroleum as a fuel became well known due to the exploitation in the U.S.A., and Mr. H.B. Medlicott of the Geological survey of India visited the areas of upper Assam where the existence of oil was reported. A few oil wells were drilled during 1866-68 near Margherita and Naharpung in the district of Lakhimpur and a small quantity of oil was produced. But due to the absence of transport facilities work did not proceed further, and later it was abandoned altogether.

In September 1889, the first oil well at Digboi was struck by the Assam Railways and Trading Company. The discovery came on the heels of industrial development. The Assam

railways and Trading Company had recently opened the area for trade by building a Railway and later finding oil nearby. The first well was completed in 1890 and in 1893 first refinery started at Margharita, Assam. The Assam oil company was established in 1899 to oversee production. In 1901, Digboi Refinery was commissioned supplanting the earlier refinery at Margharita. At its peak during the second world war the Digboi oil fields were producing 7,000 barrels per day. In the year 1909, IBP was incorporated in Rangoon to explore oil wells that had been discovered in Burma and Assam.

The new township that emerged were due more to the growth of commerce than that of industry and an important factor that determined the growth of an urban area was the construction of a road or a railway line in its vicinity. Assam was systematically grafted into the scheme of colonial extraction and domination where enclaves of prosperity existed a midst a stagnant economy. The most important visible impact of industrialization was the development of a communication network is waterways, roads and finally railways which integrated Assam with the rest of British India.

Survey of Literature:

1. *The History of Assam from Yandaboo to partition, 1826-1947* by Priyam Gaswami (2012) speaks on the political, social and economic condition of colonial Assam. Through this book talks the history of colonial Assam in a comprehensive and wild manner.
2. *A comprehensive history of Assam* by S.L. Baruah gives us an account on the expansion of British trade and network in the provinces of Assam. It also gives us the information on the social, economic and political condition of colonial Assam.
3. *Assam in the Nineteenth century: Industrialization and colonial penetration* by Priyam Gaswami gave us an account on the various industries which established by the British in colonial Assam and also the information

about the impact of these industries in the social, economic, and political life of the people of Assam.

4. *The Comprehensive history of Assam volume IV* by H.K. Barpujari gives us an account on the Treaty of Yandaboo (1826) and marked the end of the Ahom monarchy and establishment of British sovereignty in Assam which made the transition from the medieval to modern Age.

5. *The Comprehensive History of Assam volume V* by H.K. Barpujari gives us an account the history of colonial expansion briefly in the provinces of Assam. It also gave us the information of British rule in Assam.

6. *A history of Assam* by Sir Edward Gait, covers an important account of the British colonial period. It also gave us the details of economic condition of Assam during period.

7. *North East India History Association seventh Session*(1986) by Subhash Saha, J.C. Dutta, Sujit Kumar Ghosh, gives us long and wide information on the economic, political, and communication problems of the North Eastern region of India. Assam particularly during the colonial period in Assam.

8. *Report of the province of Assam* by A J Mofatt Mills gives us the clear and main important sources of Assam during colonial period.

9. *Political History of Assam volume I* by H.K. Barpujari gave us long and wide information about the political condition of Assam during that period.

10. *The History of Assam* by Romoni Barman gave us some useful information about the oil industry in colonial Assam.

11. *History of Science and Technology in India* by Sanjay Sen gave us a long and wide information on the Science and technology development in Assam in the pre colonial times.

Statement of the Problem:

The growth of oil industry in colonial Assam had various aspects towards the development of social and political despite its stagnant economy. The focal point of the study is to highlight the growth of oil Industry in colonial Assam. It is also made an attempt to study the growth of oil industry in colonial Assam. In short it attempts to give a clear picture to the growth of oil industry and its impact in Assam during colonial period. As a result, there is enough scope to do research.

Objectives:

1. To study about the establishment of oil industry in colonial Assam.

2. To study the economic, social, and political impact during the colonial period. **Methodology:**

The Sources will be based on primary and secondary sources. The primary sources such as Assam Commissioner's office, Files of the Dacca Commissioner's office, Board of Revenue papers collected from Assam state Archive. The secondary sources will be books, papers, magazine, articles.

ESTABLISHMENT OF OIL INDUSTRY IN ASSAM DURING COLONIAL PERIOD The petroleum industry of Assam has a significant role in the process of industrialization in the state. The contribution of petroleum industry towards Gross State Domestic product ranges between 8 to 10 percent over the years. Petroleum sector provides a substantial number of direct as well as indirect employment benefits. The steamy rain-forests of Brahmaputra valley in upper Assam provided expression to the buried power of petroleum in India. Cradling fast flowing tributaries, the valley became India's valley of energy heralding the petroleum industry in the country.

In April 1828, a young British officer, in charge of one of the upper Assam expeditions, ventured up the Dihing river, a tributary of Brahmaputra river and noticed sticky signs of oil on the surface of water. The officer recorded his observation of surface evidence of the existence of oil in his report. In 1865, Mr. H.B. Medicott, a Geologist was deputed to visit the coal areas of Assam. His report recommended experimental borings, to taste the value of oil at Makum, close to Margherita towards the south of Dihing river.

The discovery of both tea and coal were the result of conscious efforts on the part of the British oil, on the other hand, was an accidental discovery. Thirty years before Colonel Drake drilled the world's first oil well at Pennsylvania, men in Assam were exploring for coal. These explorers who were mainly army officers, found oil in addition to coal by accident.

The earliest recorded notice of oil in Assam is by lieutenant Wilcox of the 46th Regiment Native Infantry who reported findings at Supkong in 1825⁴. C.A. Bruce Major White, lieutenant Bigge, Dr Griffith, captain Hannay and Captain Jenkins all confirmed the presence of oil springs adjacent to several coal beds in upper Assam. Acting on these reports, an Australian speculator, Wagentreiber, applied for leases and monopoly rights over the tract of land between Bappopong and Namchik in Lakhimpur District. The Board of Revenue there upon asked Jenkins, The of Assam to furnish all the particulars. Jenkins reported the existence of three springs at Makum, Bappopong and Namchick. He, however, pointed out that Bappopong was used by the government as a trap for capturing elephants while Namchik, being located three days journey away from the frontier outpost was insecure.

Makum could be leased out without any objection. After lengthy correspondences between the Board Revenue and the Commissioner of Assam, Wagentreiber was granted a lease to operate the petroleum springs of Makum, but only for a period of three years. In 1865 H.B. Medlicott, a government geologist, observed some petroleum springs near Makum. The copious discharge of gas and non-discharge of water being both favourable systems, Medlicott recommended that experimental borings should be sunk there to practically test the value of the oil accumulations. In 1865 Goodenough of Mckillop Stewart and Company got a rent free lease of the same area for 20 years. After a couple of unsuccessful borings, he finally struck oil at Margherita, a place named in honour of the Queen of Italy and as a tribute to the Indian engineer, Chevalier Roberto Paganini who had founded the settlement. The oil was found at a depth of 118ft. This was the first mechanically drilled oil well in Asia.

Notwithstanding these encouraging results, Goodenough, Goodenough was not successful in establishing a petroleum industry in Assam primary because of transportation difficulties which raised the cost of freight and the subsequent price of the oil at Calcutta to a figure at which it could not compete with the oil from Rangoon or America. Therefore, he handed over his rights to the Assam mineral oil company which also suffered a similar fate. In 1878, Messrs Balmer Lowrie and company acquired the exclusive rights of working the springs at Naharpung and Makum for a term of 50 years, but success was limited. It was left to the Assam company, Assam Railways and Trading Company incorporated in 1881, to play a pioneering role pioneering role in exploitation of the mineral resources and development of the communication network in the province.

In 1888 the company applied for and obtained a licence to bore in area of about six miles in the vicinity of Digboi. The following year, the company struck oil at a depth of 178ft. The company's well No I produced around 200 gallons of oil per day for several months. This was a success in the oil industry in India.

Accordingly, in 1899 the oil company was formed with its headquarters at Digboi. In 1901 they commissioned the Digboi Refinery with a production capacity of 500 barrels of day. By 1926, a wide variety of products like jute batching oil, wax and different lubricants, apart from kerosene, petrol and diesel, were available. In January 1921, the shares were sold and the Burmah oil company was appointed commercial and technical managers of the Assam oil company.

Refining of Petroleum in Assam:

There are four oil refineries in Assam. These refineries are Digboi Refinery, Guwahati Refinery, Bongaigaon Refinery and Numaligarh Refinery. They are playing important role to bring about industrialization in the State.

(i) Digboi Refinery:

In 1899, AR&T Co. promoted another company, the Assam Oil Company Ltd. to take over the petroleum interests, including the Makum and Digboi, from the Assam Oil Syndicate. A refinery was setup at Digboi in 1901, the first in the country supplanting the earlier one at Margherita. Construction of the new refinery was carried out with the help of an army of labourers and trained elephants. It initially had a capacity to process 500 barrels of crude oil in a day. The refinery was almost completely rebuilt in 1923 after the Burmah Oil Company took over from Assam Oil Company in 1921. In addition, steps were taken to incorporate the latest technology. As major discoveries of crude were made in nearby Nahorkatiya and volume of crude availability increased, the refinery capacity was accordingly enhanced, finally reaching a throughput of 0.7 million metric tonnes per annum.

The number of products turned out by the refinery was quite large ranging from fuels like petrol and kerosene to a range of lubricating oils from solvents to waxes and from bitumen to petroleum coke. Over the period of a hundred years of the refinery's operations, production of a number of products has been discontinued and some others have taken their place, this being dictated by the type of crude available, operational flexibility, environmental stipulations and market forces. On 14th October 1981, by an act of Parliament, Digboi Refinery, along with the marketing functions of the Assam Oil Company was vested with the Indian Oil Corporation Ltd. and became Assam Oil Division of Indian Oil Corporation Ltd.

Digboi Refinery has the following units -

Crude Oil Distillation Unit (Bench-C):

This unit designed and supplied by Foster Wheeler & Co. of U.K. as a two stage atmospheric and vacuum crude oil distillation unit for processing high wax crude, was installed in 1936 with a capacity of 0.25 MMTPA.

Crude Oil Distillation Unit (Bench-G):

This unit designed and supplied by Lummus Co. of USA as a two stage atmospheric and vacuum crude oil distillation unit for processing high wax crude, was commissioned in 1940 with a capacity of 0.25 MMTPA.

Kerosene Treating Unit:

This unit was designed and supplied by Edeleanu Gesellschaft of Germany in 1932, for treating kerosene distillate using 100% liquid Sulphur-di-oxide.

Delayed Dubbs Cracking Unit:

The Dubbs unit was designed and supplied by Universal Oil Products of Chicago, USA in 1932. This unit

remained in operation for a period of 67 years till the commissioning of the New Delayed Coking Unit in 1999.

Wax Extraction Unit:

The foundation of the present Wax Extraction Unit was laid in 1928 while major improvements and expansion took place during the period from 1950 to 1965. In 1973, the unit was modernized.

Wax Sweating Stoves:

This plant started operations in 1929 and remains in operation till today. **Bauxite Wax Filtration Unit:**

This unit too was installed around 1929 and remained in operation until 2001 when the wax Hydro- finishing unit was commissioned.

Wax Rundown Shed:

The operations of Wax Rundown Shed, which came into operation in 1935, cover the operation of moulding, packing and despatch of wax produced by the refinery.

Lube Oil Distillation Unit:

This unit designed and supplied by Foster Wheeler & Co of UK for two stage fractionation of blue oil - the filtrate obtained from wax extraction unit under condition of vacuum was installed in 1954.

Bitumen Blowing Unit:

This unit was first installed in 1938 and expanded in 1971. Presently it has a capacity of 70 tonnes per day.

Drum Plant:

The van Leer Drum manufacturing unit was set up in 1950. While the machinery of the original unit has been modified and upgraded over the years, it continues to manufacture drums even today for packaging of Bitumen.

The Digboi Refinery Modernization Project

infused new life to the aging refinery. It opened up new horizons heralding the era of modernity for the century old refinery. The new units include

New Crude Distillation Unit:

As part of DRMP, a new crude and vacuum distillation unit was commissioned in 1996.

Catalytic Reforming Unit (CRU):

The CRU was installed in 1997 for production of Low Lead and Zero Lead Motor Spirit.

New Delayed Cooking Unit (NDCU) and LPG Recovery Unit (LRU): The NDCU commissioned in 1999. LRU produces LPG from gases.

Vacuum Residue Short - Path Distillation (VRSD) Unit:

The quality of Bitumen produced at Digboi Refinery is adversely affected by the presence of wax in the vacuum residue feedstock obtained from the crude distillation unit. To enable removal of this wax from the vacuum residue, the VRSD has been set up. **Wax Hydro- Finishing Unit (WHFU):**

The process is of Acid Treatment and Bauxite Filtration used for the refining of waxes resulted in generation of large amount of harmful waste products and emissions. To eliminate these wastes a process known as Hydro-finishing was adopted by Digboi Refinery. The WHFU has been operating successfully since July 2001.

Solvent Dewaxing Unit (SDU):

The unit produces a high quality, high value microcrystalline wax.

Hydrotreater Unit:

The main function of this unit is to enable catalytic treatment of kerosene and diesel produced in the refinery. In the Digboi refinery items produced from crude oil include Motor Spirit (23.2%), Diesel Oil (17.4%), Kerosene (16.9%), Furnace Fuel (16.8%), Wax (7.9%), Lubricant (3.8%), Bitumen (2.2%), Coke (1.7%), Gas (2.4%), Others (4.4%) and the unutilized part (3.2%). (IOC Ltd, Report, 2001) At present, the installed capacity of Digboi Refinery is 0.7 million metric ton per annum. Modern technology and new facilities have given new strength to Digboi Refinery.

(ii) Guwahati Refinery:

Establishment of another new refinery became necessary after the discovery of new fields in upper Assam. But there was a great deal of controversy about the establishment of this refinery in Assam. At last, it was decided to establish this refinery with a production

capacity of 0.7 million tonnes at Noonmati area of Guwahati which was subsequently increased to 1 million tonnes. To meet this purpose one agreement was signed between the Indian Government and Rumanian Government. Rumania Government sanctioned Rs.52.38 crores long term loan at the interest of 2.5%. Besides, Rumania Government supplied machineries and thus the refinery was established with the help of their skilled personnel. In 1961, establishment work of Guwahati Refinery was completed. This refinery is also under the control of Indian Oil Corporation (IOC) Ltd. The Indian oil company is managing the refineries at Digboi and Gauhati Refinery. Since then this refinery is producing various types of petroleum products such as Motor Spirit, HSD (High Speed Diesel), Lubricant, Kerosene, Wax etc. The total installed capacity of this refinery is 1 MMTPA. The Guwahati refinery has been undertaken a massive expansion programme as a hydro-treatment plant already approved by the Indian Oil Corporation (IOC) for the refinery. The refinery aims at increasing its installed capacity to 1.5 MMTPA from the present 1 MMTPA.

Besides the refinery includes -

- (i) Delayed Coking Unit (DCU)
- (ii) Crude Distillation Unit (DCU)
- (iii) Parafin Wax Unit (PWU).

Different Expansion programmes have been undertaken by the refinery spending about Rs. 1200 crores.

(iii) Bongaigaon Refinery and Petrochemicals Limited:

The Bongaigaon Refinery and petro Chemicals Ltd. Was registered in 1974 for the petrochemical complex at Bongaigaon with installed capacity of 1 million tons. With the increase in the production of crude in Assam oil field and also with the increase in the demand of petroleum products in the North Eastern Region, the demand for the establishment of third refinery in Assam was mooted. Considering the requirement position, the Petroleum Ministry finally came to a decision to set up the third refinery in Assam in the public sector. Accordingly, the Bongaigaon Refinery Petrochemicals Limited (BRPL) was registered, as a Public Sector Company on February 20, 1974 with head quarter at Dhaligaon in the old Bongaigaon District of Assam. Originally total cost of construction of this refinery was estimated at Rs. 81.10 crores with Rs. 24.37 crores worth of foreign exchange component. But ultimately this multi-product company was commissioned at a cost of Rs.450crores.

The refinery units include -

- (i) Crude Distillation Unit (CDU)
- (ii) Kerosene Treating Unit (KTU)
- (iii) Delayed Coker Unit (DCU)
- (iv) Coke Calcination Unit (CCU)

The petrochemical units include -

- (i) Xylene Plant
- (ii) Dimethyl Terephthalate (DMT) Plant
- (iii) Polyester Staple Fibre (PSF) Plant

BRPL Products:

The main refinery products of BRPL include - Naptha, Motor Spirit (Petrol), Aviation Turbo Fuel (ATF), Diesel, Kerosene, BRPSOL-100 etc.

The petrochemical products produced by BRPL include – Para Xylene, Orthoxylene, Cee nine Solvent, DMT, Polyester Staple Fibre (PSF) and PSF Waste. Among these, the most prestigious product is the PSF and trade name 'Bonpoly'. BRPL proposed a refinery expansion project to raise its installed capacity from 1.35 MMTPA to 2.35 MMTPA involving the capital outlay of Rs. 223 crores, including Foreign Exchange component of Rs. 32 crores, which was subsequently approved by the Cabinet Committee on Economic Affairs (CCEA) and public Investment Board (PIB). The project was sanctioned by the Government of India on December 31, 1991. The refinery expansion project consists of two units - (i) Crude Distillation Unit (CDU) and (ii) Delayed Coker Unit (DCU). The project also includes LPG recovery facility and debottlenecking of reformer in the existing aromatics plant. At present refinery installed capacity is 2.35 MMTPA.

(iv) Numaligarh Refinery Limited :

The foundation stone of the fourth refinery at Numaligarh was laid on 3rd July, 1992 by the prime Minister It commenced production from April 1999. The Government of India set up the 4th Refinery in Assam at Numaligarh under the Golaghat District of Assam. This new company, Numaligarh Refinery Limited was formed in April 22, 1993.

This refinery was set up in the joint sector in pursuance of the commitment in the Assam Accord of 1985 with major equity participation of the IBP (Indo- Burma Petroleum) and Assam Government. After much hue and cry and dilly - dillying of seven years, the State Government has finally agreed to accept 10% equity participation while the IBP got 51% leaving the rest to the primary market.

Numaligarh Refinery is designed to process 3 MMTPA crude oil from Assam fields of oil & ONGC in the ratio of 40:60.

Different units of the refinery are:

- (i) Crude Distillation Unit (CDU)
- (ii) Vacuum Distillation Unit (VDU)
- (iii) Delayed Coker Unit (DCU)
- (iv) Hydro-Craker Unit (HCU)
- (v) Hydrogen Unit (HU)
- (vi) Coke Calcination Unit (CCU)
- (vii) Sulphur Recovery Block (SRB)
- (viii) Catalytic Cracking Unit (CCU)
- (ix) Captive Power Plant (CPP)

The refinery has objective to maximize middle distillates like kerosene and diesel. The refinery

products are Liquid Petroleum Gas (LPG), High Speed Diesel, Aviation Turbine Fuel (ATF), Kerosene and Calcined Coke. The refinery has made a commendable achievement in its over all progress. After completion, the NRL has absorbed directly around 534 personnel, including some at the marketing terminals. The refinery was completed by the end of 1998 and was commissioned on April, 1999. This refinery was dedicated to the nation on 9th July, 1999 and commercial production has already started from October' 2000.

Petroleum industry of Assam earns a substantial amount of profits. In 2006-07 it has earned total profit (after tax) of Rs. 1639.99crores while it was Rs. 1689.93 crores in 2005-06. Petroleum Industry provides ample scope of direct and indirect employment. According to the NSS 55th round of employment and unemployment survey, petroleum industry of Assam provides direct employment benefits to 5059 people. Thus, Petroleum Industry of Assam has important role to play in its process of industrialization. But at present petroleum industry of Assam is facing a serious shortage in the supply of petroleum crude due to the prevailing demand supply gap. The combined refining capacity of the refineries at Digboi, Guwahati, BRPL and Numaligarh after the completion of their expansion schemes is around 7.5 MMTPA leaving a deficit of around 2.4 MMTPA. The present crisis in the supply of crude

arises due to the fact that Oil India Limited (OIL) and Oil and Natural Gas Commission (ONGC) have failed to increase the production of petroleum crude in the entire North Eastern Region. Although the petroleum Industry has projected the total crude production in the North East to be around 7 MMTPA at the end of Eighth Plan and accordingly planned for the expansion programme of BRPL refinery and commissioning of Numaligarh refinery but due to the failure of ONGC to increase crude production both in Assam and Nagaland such projection could not materialize. In order to avert the crisis of petroleum industry of Assam, the Ministry of Petroleum prepared a Rs. 130 crore project to supply imported crude to the crude starved refineries in Assam. Moreover, the Oil Co-ordination Committee and Engineers India Ltd. (EIL) have been asked to work out a strategy to examine the various alternatives to supply the refineries with imported crude via Haldia Port. Both the Oil Co-ordination Committee and the Engineers India Limited have jointly submitted a proposal to the Petroleum Ministry with three options –

- (a) To bring in imported crude from Haldia port in wagons,
- (b) To use the barges to carry imported crude via Bangladesh
- (c) Utilize BRPL's existing capacity by utilizing the Naharkatiya-Guwahati-Barauni pipeline to pump back imported crude brought from IOC's 4.2 million tones Haldia- Barauni pipeline . It is understood that the ministry is in favour of the third option, considering the fact that the Haldia-Barauni pipeline capacity can be increased to six million tonnes with the help of boosters. Moreover, the BRPL has also proposed to the Petroleum Ministry to increase the Haldia-Barauni pipeline capacity to 7.5 million tones per annum at an additional cost of Rs 400 crores, so as to meet the scarcity of crude for achieving full capacity utilization. The Ministries not in favor of transportation of crude by rail, since it is not feasible on a long term basis, considering the existing inadequate railway network under the present situation, it would be better to use existing pipeline between Barauni-Bongaigaon-Naharkatia pipeline which is economically and environmentally more viable and more importantly on the consideration of the optimum utilization of the existing costly pipeline infrastructure.

IMPACT OF OIL INDUSTRY IN ASSAM DURING COLONIAL PERIOD

The industrial revolution had seen England emerge as a major industrial power and all her commercial activities in colonies had been geared to the growing external trade. The industrial revolution also left a strong impact on colonial Assam. The industrialization changes the social, economic and political condition of Assam:

SOCIAL IMPACT:

India had always been pre-eminently an agricultural country and the economic structure of Assam was no different. The village was the most important unit and because of the difficulties in communicating with the outside world, it had to be entirely self-sufficient. All the principle needs of the community were satisfied locally and only for such articles like salt recourse was to be had to an outside sources. In the pre colonial period when cash payment of revenue was not known, the village was all the more isolated. There was no occupational caste or sub-caste but the industrialization or the commercial revolution change the social life of the people of Assam. The British brought about a commercial revolution and established new industries in Assam, the people of Assam working in these industries as a employed. After the industrialization, in the Assamese society found a new class of people, the occupational caste.

The industrial revolution emerged a new class of people in Assam. They called as migrant workers. These immigrants were basically acquaintance oriented they tended to settle in homogeneous groups usually having little communication with their neighbors. Thus, although different cultures met the result not an emergence of a composite culture but a mosaic of culture. These classes of people called as coolie, these coolie immigrants constitute a fleeting population.

As the communication network developed they entered Assam in large numbers and gradually

displaced the local traders. Even the production of such traditional items like mustard oil and paper passed into their hands.

The emergence of the Assamese middle class, growing under the patronage of the British rule and educated in western liberal tradition, was as elsewhere in India, a major event in the social history of Assam. Besides the middle class, there came into existence a working

class consisting of the laborers who worked in railways, steamer service, mines and in the construction of roads, bridges etc. Members of this class mostly remained as wage earners strikers and harts organized mostly by these working in the railways and steamers. Spread of western education in classical Assam was another social impact on the colonial Assam. After allowing the indigenous system of education to continue for a few years the British with a view to importing English education to the Assamese youth and making them fit to get junior post in administration, got up the first English school at Gauhati in 1835. Meanwhile, the introduction of the written parts created in the people an eagerness to learn how to read and write best they should be described by the amlahs. The Government had parts of the province.

The Christian missionaries also took their hands in the establishment of hospitals and school for boys as well as for girls. In the hill area there were mainly concerned with the conversion of the immigrant labour force. The fact that large number of migrant workers come from chotanagpur, where there was considerable missionary activity was probably one reason for the general direction of their work in the plans.

Apart from education, another aspect became conspicuous by its absence, the growing British interest in Assam around an awareness about the complete lack of medical facilities in the region. For the first time British introduced western medical practices.

Another outcome of the industrialization of Assam was the growth of the workers movement. The gap between management and labor was extremely wide. In the prevailing circumstances, the workers had little choice they could revolt against their tyrasimical masters or ram away. From the public made then more self confident and less willing to accept the absolute authorities of the planters.

ECONOMIC IMPACT:

The British occupation of Assam brought about a commercial revolution and established a new economy in the province. However, as this was affected through a discriminatory system of customs duties with the British commercial interest in view, the new economy of Assam was bond tightly to the heels of British economy in a subservient position. In course of time Assam lost not only self sufficient but also most of her external market. The balance of trade totally shifted in favor of the East Indian Company.

In course of time, the local hand loom products gave way to imported piece goods other local in bell metal copper, brass. The advent of the railway tea a town generally meant an increase in trade.

The stage was new set for the introduction of a new economy. Modern industry in Assam started with the establishment of the tea plantation. The Europeans had been taken a little interest in the growth of Indian Industry.

On the other hand, the oil resources were an accidental discovery. The extraction of crude oil by rather primitive methods had been going on in the fields of upper Burma from the early years of the 19th century. Thus when the Assam Railways and Trading companies first struck oil at Digboi in 1889, it marked the beginning of an extensive industry in Assam. In 1901 the Digboi refinery was commissioned with a refining capacity of 20000 gallons a day. In 1907 the output of crude oil in Assam increased to 3,156665 gallons

The development of the new industries in a purely substance economy of the Brahmaputra valley left a deep imprint on the agrarian structure of the reign. The changeover from the traditional economy to commercial was no sudden that in many area land under other cash crops. The tea, coal, oil industries created new demands and opened up fresh avenues for the development of ancillary industries.

POLITICAL IMPACT:

Colonial penetration into Assam and the neighboring hill areas was accompanied by sweeping political, economic and social changes resulting in a radical transformation of the region within a very short time. Many of the changes were positive, when seen in isolation, but when viewed in the overall colonial framework, it is apparent. That they were a part of the general process of underdevelopment that accompanied the imperialist forces. The former autonomy of the villages was eroded; indigenous crafts declined; the introduction of monetary economic and systematic revenue maximization led to escalating poverty while industrialization resulted in dramatic demographic changes.

During the industrialization in colonial Assam several political party had formed. They protest against the British government for their right. The workers who brought from different province of Indian to Assam they started movement against the British government. Industrialisation in colonial Assam brought a quickly change in the polities of Assam. The people Assam united together they started protest for their rights. The political parties started their movements against the British government. During the industrialization Britishers

introduced many reforms which help the people of Assam. These reforms led to the political changes in colonial Assam. The Charter Act of 1833 had resulted in the ascendance of industrial interests over mercantile interest. This had tremendous impact on the settlement of newly acquired Assam. For the first time, Europeans were allowed to hold land outside the presidency towns as long-term leases or with freehold rights. All these changes broke down this isolation of the provinces, both physically and metaphorically, and opened them up for new forces, ideas and thoughts to percolate.

II. CONCLUSION

Notwithstanding these developments, the economy of Assam, on the whole, remained poor. In the agriculture sector, the peasantry was reduced to object poverty. The age old cottage industries were in complete ruin. As early as 1853, Maniram deplored the extinction of these industries. Likewise, Gunabhiram, who a few years later, observed the Assamese people eschewing their traditional trade pursuits, regretted a growing tendency among them to use more and more of British goods imported through Bengal. In the industrial sector, although Assam's coal and petroleum was an inexhaustible source of income, this in no way led to the prosperity of the province. Royalty from crude oil amounted to Rs.10 lakhs but excise duty on petrol of nearly Rs 2 crores went entirely to the foreign exchequer.

The tea states were like numerous Zamindaris owned mostly like numerous Europeans but there were some Indian planters too. The contradiction between the two Europeans and the Indian, sharpened in course of time and the nationalists among the latter played an important role in Indians struggle for freedom. Apart from the Zamindars in Lower Assam, there appeared a class of big land holders, including the manqaders and some Satradhikars. The rayots working there were very much. Rest of the peasantry, small, poor or landless was outside the economy growing solely in the interest of the colonists. The present economy backwardness of Assam is largely due to these conditions created by the British.

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