CHAPTER: III

TRANSPORT AND COMMUNICATION

The transport and communication is a part and parcel for the economic development of a state. The transport system made the dealings very close between producers and consumers. Every old account of Assam suggested that most of the travelers used horses, ponies, elephants, bullock cart, palanquins and country-boats as a means of transportation and communication.[1] Goalpara was a gateway of the eastern countries as well as transit point of Bengal and Assam. In early, only river courses became the means of communication for trade activities. B.K. Barua observed the following,[2]

> "The trade with the neighboring provinces was mainly carried by river transport. The excellence of Assam's water-communications is evident and it certainly facilitated trade in every direction. The main route from Kamrupa to Bengal, Behar and Orissa was by the rivers Brahmaputra and Ganges".

During the medieval period, most important route was Gohain Kamal Ali which started from Koch Behar to Narayanpur in Lakhimpur district of Assam. It was constructed during the reign of Koch king Nar Narayan and completed in 1547 A.D.[3] Besides, the *Duars* or mountain passes namely Bijni, Sidli, Chirang, Ripu and Guma *Duars* were the outlets through the Bhutan to Tibet and China.[4] British India developed modern transport system for doing trade in various parts of Goalpara district. There were four types of transport system in Goalpara namely Waterway, Roadway, Railway and Tramway.

III. 1. WATERWAY

The Brahmaputra river played an important role as a means of communication in Assam since the time immemorial. Several rivers of Goalpara district were also used for transportation.[5] The traders of Goalpara district utilised country made boats for transportation of goods for internal and external trade.[6] The Brahmaputra river course connected with Calcutta via Jennai to Pabna then Ganga and finally to Calcutta through Matabanga or Jellengi.[7] This voyage needed twenty-five to thirty-five days from Goalpara to Calcutta and thirty-three to forty-three days from Calcutta to Goalpara.[8]

British India navigated steamers and large native boats in Brahmaputra river throughout the year.[9] In 1848, British East India Company started steamer service in Assam between Calcutta and Gauhati. The steamer service trial was succeeded after long days of experiment. In 1860, India General Steam Navigation Company entered into contract to run pair of vessels for six days in a week. A daily mail steamers service was also started between Dibrugarh and Dhubri in 1884. The Steamer services between Dhubri to Jatrapur connected with the railway line which made journey to Calcutta.[10] There were four major *ghats* in Brahmaputra river, they were Dhubri, Bilasipara, Goalpara and Dologama where all steamers, passenger boats and large cargo boats were stationed. Few small steamers were also used for mail service from Dhubri to Gauhati and from Gauhati to Dhubri.[11] The cargos were carried by smaller passenger boats as well as larger steamers. Small steam ferries also ran across Dhubri, Fakirganj, Goalpara and Jugighopa.[12] In 1902, steam ferries services between Kaunia - Tista and Tista - Dharla were opened, which connected to Dhubri because of the establishment of railway service.[13] All steamer services were managed by India General Steam Navigation Company.[14] So, river transport played a vital role in maintaining trade relation between Assam and rest of India. Assam - Calcutta service was the principal water transport route which started from Dibrugargh to Calcutta via Goalpara town, Jugighopa and Dhubri of the district of Goalpara.[15] Many tributaries of the Brahmaputra rive were also playing an important role for transporting goods to the remote places of Goalpara district.

Several rivers which were originated from Bhutan Hills also played an important role for transportation of agricultural products and timber from the northern part of Goalpara district to major trade centres. The timber logs were floated down by Gurfela, Gongia, Longa river to Sapatgram timber depot and then by Tipkai river to Bagribari

sales depot.[16] The river Gadadhar transported timber of Guma reserve forest to Dhubri sales depot.[17] The Sonkosh also played an active role for transporting of timbers and other goods from the northern part of district. The Saralbhanga, Gaurang and Champamati rivers were also used for transportation of timbers from the Sidli-Chirang *Duars* to Bilasipara.[18]

III. 2. ROADWAY

Two roadways from Bengal to Assam passed through Goalpara district. First road was started from Murshidabad, Malda, Dinajpur, Rungpur, Bagwah to Goalpara which was recognized as *Dak* (postal route) line of Calcutta and second road ran via Dacca, Dumary, Pucuoloe, Jumalpore, Singimari to Goalpara but it used to be blocked in the rainy season.[19]

All roads of Goalpara district were in deplorable condition during 1853. In 1868, Public Work Department was established to construct roads with the help of member nominated by Deputy Commissioner of Goalpara district. All major roads of Goalpara district came under Public Works Department. Assam Trunk Road had entered through the district of Kamrup to Dhupdhora in Habraghat *Pargana* of Goalpara district.[20] In 1871, the construction of Assam Trunk Road was completed up to Agia of Mechpara *Pargana*.[21] During 1875-76, 74 kilometres of first class road, about 55.4 kilometres of second class road and about 480 kilometres of third class road were constructed in Goalpara district.[22] A committee was formed in each district under Assam Local Rates Regulation of 1879 to supervise the expenditure of road construction. In 1882, this Committee was replaced by Sub-Divisional Local Board.[23] Sub-Divisional Local Board was entrusted the duties of maintaining all roads except few major roads.[24] A distance of sixty-four miles public road between Goalpara and Singimari came under the Public Work Department.[25] Twenty-six miles of old public road between Dhubri and Kerbari was reconstructed at the expense of Imperial fund under the supervision of Sub-divisional officer of Dhubri.[26] It was connected to Bengal.[27]

Several local roads under Deputy Commissioner of Goalpara district were Goalpara to Koraibari, Goalpara to Jira, Goalpara to Lakhsmipur, Jogighopa to Dotma and Bijni to Raha (an adjacent place of Kamrup District). On the other hand, Bijni to

Raha road was constructed by government officers who held the office of Bijni estate.[28] Other roads that existed in Goalpara district were Damra to Dhupdhara, Damra to Salmara, Goalpara to Nibari, Kitkibari to Jira, Jogighopa to Raha, Salmara to Bijni, Jughigopa to Salmara, Jughigopha to Bilasipara via Salemcha, Hakma and Bilasipara to Gauripur estate. Raha to Bijni road was extended to Haldibari in Western *Duar* during Anglo-Bhutan war. [29]

There were two Trunk roads on the north bank of Brahmaputra which came under Public Works Department. A Trunk road started from Dainimari Band of Sonkosh which passed through Kochugaon, Patgaon, Sidli, Chapaguri, Bijni and Raha and another Trunk road started from the Jugighopa which ran through Kotaibari, North Salmara and Chapaguri.[30]

Dhubri Local Board also constructed two principal roads which started from Dhubri to Kochugaon passing through Balajan, Paglahat, Tamarhat, Gossaigaon and Kochugaon. Another 16 mile road started from Talguri Kali temple of Chapar to Sildi which passed through Bidyapur, Basugaon and then connected to North Trunk Road at Sidli.[31] Dhubri Local Board also maintained several roads of the district. The roads of Gauripur - Raha passed through Manipur, Bilasipara, Salkosa, Chapar, Moligaon, North Salmara and Raha.[32] The roads of Bilasipara and Bogribari joined together at Sapatgram and then it proceeded to Tutsibil, Baoraguri and Gossaigaon taking the name of Sapatgram-Gossaigaon Road. Many of minor roads of Kokrajhar, Agomony, Sasargaon, Dotma, Tipkai and Golokgonj were came under the responsibility of Dhubri Local Board.[33]

A road which started from Bilasipara was divided into two branches i.e. western and eastern roads. The western road was connected to Fakiragram, Dotma, and Serfanguri and in eastern road linked to Kokrajhar, Haltugaon, Gurubasha.[34] On the other hand, there was a road which ran from Jugighopa to North Salmara till it met the Trunk Road near the cross point of Ai river.[35]

The road on the south bank of Brahmaputra river was called South Trunk Road which ran through Kakripara, Singimari, Patakata, Fakirganj, Lengrabhita, Lakhipur, Baida, Agia, Krishnai, Rangjuli and Dhupdhora.[36] The Goalpara town was connected by Trunk road of Agia.[37] Damra to Dalgoma road was also important road of the district.[38]

The Imperial forest department also constructed some roads in forest areas for transportation of timber from remote forest up to logging centre and timber depots. On the other hand, some road like Janali path, Athibari path, Gangia cart road, Malsing road and Haltugaon cart road were used as weather road.

III. 3. RAILWAY

The demand of Assam tea in European markets compelled the British India to construct a metre gauge railway line through the district of Goalpara.[39] The proposal for construction of a railway line from Golokganj to Guwahati was unanimously agreed by Chief Commissioner of Assam and Government of British India.[40] On 4 May, 1900, Chief Commissioner of Assam issued an order to Director of Railway for preparation of a route. The Office of Director of Railway was ready to establish railway for providing better transport system in Goalpara district. In 1902, Dhubri was connected by fifteen miles metre gauge railway line of Eastern Bengal Railway which entered into Goalpara district through Bishkoa Nadi to Golokganj, Balajan, Gauripur and then to Dhubri.[41] In the same year, railway department also conducted survey for the construction of Dhubri - Guwahati line. The Director of Railway proposed two lines for the construction of railway in Goalpara district. The northern route started from Golokganj which passed through Parbatjhora forest, Bijni, Bhabanipur, Rangia and Amingaon and southern route started from Gauripur to Bagribari, Bilashipara, Chapar, North Salmara, Barpeta, Hajo and Amingaon.[42] As per the survey, the southern route was thirteen miles shorter than the northern route. The estimated cost was Rs. 1, 23, 47, 386 but it increased up to Rs. 1, 40, 20,952 in later period.[43] Finally, J.B. Fuller, the Chief Commissioner of Assam accepted the northern route which was prepared by Mr. Finney, Manager of the Eastern Bengal Railway. The survey revealed that the southern route passed through less cultivated area but it was flooded area in rainy season.[44] No doubt, the northern route was free from flood, however; it passed through the densely populated as well as cultivated areas.[45] In 1901, the Railway Department sent a rough project for construction of railway line to the Secretary of State for sanction.[46]

On 11 September, 1902, Lord Curzon, Viceroy of India issued an order to George Hamilton, Secretary of the State, for the construction of Dhubri - Guwahati line and

sanctioned Rs.92, 31,245.[47] Office of Secretary of State sanctioned an amount Rs. 10 lakhs for the construction of Dhubri- Guwahati line in 1903.[48] Very quickly, the railway line was completed up to Bijni in 1905 and the line was completed up to Amingaon which is opposite to Pandu in 1912.[49] The new line between Dhubri and Guwahati was opened for traffic in 1913.[50] Amingaon became a western terminus of Assam-Bengal Railway after the completion of 151 miles length track from Golokganj to Guwahati.[51] Interval stations were established at Golokgonj, Basbari, Tipkai, Sapatgram, Fakiragram, Sisapani, Kokrajhar, Basugaon, Abhayapuri and Bijni.[52] Golokgonj station became a junction point of Dhubri - Guwahati line.[53] There was no new line in Goalpara district till the Independence of India. The partition of India disrupted the railway communication. All railway lines of Assam passed through East Bengal which became a part of Pakistan after partition of India which was known as East Pakistan (now Bangladesh). Therefore, Government of India constructed a new line to reconnect Assam with Indian territories. In 1948, a new Railway line was started from Alipuar Duar of North Bengal to Fakiragram. It was completed by 1949.[54]

III. 4. TRAMWAY

Tramway was established by forest department in the erstwhile Goalpara district for the extraction of Sal timber from reserve forests. Sal timber was in a great demand for using as a sleeper for railway track. In early colonial period, Sal timbers were dragged by elephants and bullock carts up to river *ghat* and then transported by river to Dhubri. Sal trees were available in the inaccessible areas of Goalpara forest. So, forest department set up a Tram line in Goalpara forest for extracting more timber from the remote areas. Tramway played an important role in transporting timber to sales depot from the forest. The proposal for the establishment of Tramway in Goalpara forest went back to Gustav Mann, who expressed about profitability of Tram project.

In 1897, wood sleeper operation commenced in order to supply to Eastern Bengal Railway for line extension from Mogalhat to Dhubri but the operation proved that the exploitation of round timber for Bengal market was more profitable than the procurement of the yield in the form of sleepers.[55]

Railway department required heavy hardwood timber sleepers like Sal (Shoria Robusta) to set the track on earth, which was available in Kochugaon of Goalpara division.[56] The forest of Goalpara had been partially exploited in estimated yield. The supply of timber sleeper was the most profitable one to the forest department but did not extract the timber from thick jungle due to lack of communication. In the month of October 1899, Mr. Chester, Conservator of Assam put forward a proposal to purchase a light portable Tram for the development of departmental timber operation.[57] The proposal was looked in by Mr. Henry Cotton, Chief Commissioner of Assam who gladly supported the proposal for introduction of Tramway in Goalpara forest despite of fear of more expenses.[58] But he drew on his concurrence with a conclusion that the forest department should seek the best market and the concerned department should devote its energies in supplying railway sleepers where a greater profit could be made out of the same timber by selling.[59] Assam Forest Report for 1898-99 furnished following information:

> "The whole question of supply and demand would depend on the Department and its customer and it was obviously that the department would work for the railway sleeper, if it can get better prices for its timber elsewhere. But the railway authorities may purchase their sleepers from other parts of India if the price is cheaper than in Assam. At the same time the Chief Commissioner felt that the price was too low which was given by Eastern-Bengal Railway for supplying sleeper at the Rs. 2-2-3 per Sal sleeper. It has come to be known that the Assam-Bengal Railway purchased Pyinkado sleepers from the Burma at a cost of more than Rs. 3 per sleeper".[60]

Chief Commissioner of Assam always tried to grasp the opportunities of supplying Sal sleepers to railway authority and cut off Pyinkado sleeper market of Burma. Pyindako wood sleeper of Burma was durable than other wood but it cost was too high. It was not possible to bring all *Pyindako* sleepers from Burma which required more energy. He believed that the forest department of Goalpara could earn good profit from Sal sleepers, if sold at Rs. 2 - 6 *annas* per sleeper. He also observed that the prices of sleepers were likely to increase if Eastern Bengal Railway extended up to Goalpara district for taping the reserve forest.[61]

Mr. Cotton did not face any difficulty in getting the consent of Government of British India to set up a Tramway. After careful examination, a proposal was made for installation of ten or twelve miles of portable Tram line. The proposal was duly sanctioned 14 lbs. 24 gauges with steel sleeper for affording sufficient portability and strengthened to work in hand.[62] The Government of British India granted Rs.15, 000 for

laying down the light Tram line. Very modest mileage of two and half miles of Tram line was constructed in 1901-1902.[63] Tram carried water to the forests for supplying water to forest labourers who were felling and scantling the timber log in waterless forest tract. At the time of returning the Tram brought timbers from the remote forest and unloaded at Kochugaon from where the timbers were taken up to river side for floating down to respective sales depots.[64] In 1902, Imperial forest department purchased a portable Tram at the rate of Rs.16, 125 for timber transportation. In the same year, Government of British India sanctioned another 2 ½ miles extension of the existing line. The cost of ½ miles Tram line installation was Rs. 10,042 and 6 chains were fixed in the line at the cost of Rs.172. In 1903, total length of portable Tram line was six miles. During that year, total expenditure for development of Tramway was amounted Rs. 35,171.[65] But many obstructions were faced when extracting the timber.[66] Thereafter, Mr. Perree, Deputy Conservator of Assam handled the administration of Goalpara forest division in 1904, who operated hand trolleys on the Tram track for first time.[67]

Expenditure incurred of Tramway is shown base on Assam Secretariat Proceeding Office (Rev) No.561-460-25.11.1904.

Particulars		Expenditure incurred of Tramway during the year												Total		
		1900-01			1901-02			1902-03			1903-4					
1		2			3			4			5			6		
		Rs.	A	P	Rs	A	P	Rs	A	P	Rs	A	P	Rs	A	P
1	The cost of Tramway materials	14,496	0	0	10,044	8	0	5,334	0	0	10	0	0	29,884	8	0
2	Cost of transport of the same from Calcutta forest.	2,222	15	6	2,029	10	2	803	13	7	10	1	0	5,066	8	3

3	Cost of laying down the Tramway line	93	8	0	4	13	7	0	0	0	61	0	0	159	5	5
4	Cost of repairs to Tramway line	0	0	0	60	10	8	1	14	0	50	0	0	112	8	8
5	Cost of maintenan-ce of Tramway line	29	2	9	161	4	0	196	0	7	110	6	4	496	13	8
6	Cost of tools purchased for used in the Tramway line	44	1	3	5	8	0	4	0	0	3	11	9	57	5	0
7	Total	16,885	11	6	12,306	6	3	6,339	12	2	245	3	1	37,777	1	0

In 1905, three miles Tram line was extended up to river *ghat* of Bwirali at the cost of Rs.10, 845.[68] By 1906, 24 gauge and 40 lbs. was installed for 9 ½ miles tracks with steel sleepers. Total cost of 9½ miles of the line was Rs.57, 000.[69] Forest department had installed hand puller wooden truck on the steel Tram track. The timber loaded wooden truck could able to carry 25 M.G. Sleepers, which was operated by man power.[70] On the other hand, 3 miles temporary track from main loading point of Kochugaon to Gurufela *ghat* was also installed. Manual labourers and buffaloes used to pull the timber loaded wooden Tram truck up to river *ghat* of Gurufela from where timbers were floated down to Bogribari and Dhubri sales depot. By 1911-12, total mileage of the line was 19 miles including 3 miles temporary track of Kochugaon - Gurufela.[71]

In the last working year of 1911-12, forest department constructed ½ half mile portable and 1 mile permanent Tram line. Total permanent line was 20 miles and one mile of portable line. Total expenditure of Tram line was amounted at Rs. 1, 03,069 including Rs. 4000 in new works, Rs. 605 for transport materials and Rs.1, 546 for maintenance.

Forest department could not transport more timbers due to shortage of labours. So, Mr. F. Beadon Bryant, Inspector General of Forest of India suggested to the forest department of Assam to install a small locomotive on Tram line.[72] In 1912, the department came up with a proposal to convert Tram into steam haulage under the guidance of Mr. W.F Perree, Deputy Conservator of Assam. The Government of British India sanctioned Rs. 50,000 for installation of steam traction on Tram line. It was initiated in 14 April, 1912 by Mr. Dicks, Divisional Forest Officer of Goalpara division. 6-wheeled type of locomotive of 20 H.P. was proposed under the official letter No. T.-267, dated on 9 March, 1913 and another official letter No. T.- 275, of 17 March, 1913, 4 - wheeled type of 10 H.P. was recommended for running on Tram track.[73] After that, light railway had started to run between Kochugaon and Gurufela river *ghat* for the first time.[74]

Mr. Silvester, Locomotive Superintendent of Eastern Bengal Railway inspected Tram track and finally rejected the installation of steam engine which was sold by Messrs. Orenstein and Koppel & Co. and Messr. Martin & Co. Again, Mr. Shore, Executive Engineer of Eastern Bengal Railway made inspection the track and did not hesitate to purchase 6-couped wheel and 20 H.P. from Messrs. Orenstein and Koppel.[75] So, 29 track chains of Tram line were lifted from sixteen miles of distance. Wooden sleepers were replaced by iron sleepers. Around 48 track chains of one mile line were confined to a slope of 1 in 200. Eleven bridges were constructed for 352 running feet. One locomotive of 20 H.P., 20 iron trucks and large number of miscellaneous instruments were purchased from Messrs. Orenstein and Koppel for running on Tram line. An engine shed and quarters for locomotive staff were erected at Kochugaon. 13,000 sleepers were prepared for extension of Tramway track.[76]

In June 1914, Kochugaon Tram line was converted into light railway track with the cost of (i) Rs. 11,195 to replaced sleeper (ii) Rs. 5,126 for construction of Bridge (iii) Rs. 5,367 for reducing gradients and minimizing curves (iv) Rs. 6,450 for purchasing of Locomotive parts (v) Rs. 1,654 for freight transport and fitting of engine (vi) Rs. 3,690

for purchasing of 20 trucks (vii) Rs. 330 for inspection trolley (viii) Rs. 5,857 for store, lathe, pump, etc (ix) Rs. 1,700 for construction of engine shed (x) Rs. 1,590 for other building accessories (xi) Rs. 7,012 for purchasing of 38 trucks. Total amount was Rs. 49,971.[77] Locomotive was inaugurated in July, but did not give good services till November of 1914.[78] Thus, functioning of Tram services began from 1916 onwards. With the introduction of Locomotive, the exploitation of timbers was greatly extended in various directions.[79]

In 1920, the water course of Gurufela had been changed. In the rainy season of 1921, due to the erosion river basin of Gurufela changed its river course.[80] Finally, this river course broke out in several river basins which became inconvenient for timber floating.[81] Therefore, forest department proposed to construct a new light railway line from Kochugaon to main line of Eastern Bengal Railway.[82]

In 1921-22, Railway Engineer made survey several routes to construct light railway track. So, projects of the different routes were prepared by Railway Engineer.

The routes from Kochugaon were as follows:

1. Kokrajhar- Distance 26 miles. Estimated cost was Rs. 4, 32,000. This had to cross big river which would give more inconvenient.
2. Tipkai - Distance of 21 miles. Estimated cost was Rs.3, 54,358. This was the most westerly and probably the best route as regard high ground and the necessity for few bridges.
3. Fakiragram - Distance of 16 ¾ miles.
4. Sapatgram. This was the direct route but difficulties of the terrain put the project out of consideration.[83]

Kochugaon-Fakiragram alignment was finally accepted and sanction amount Rs. 2, 90,850 for construction of 17 miles.[84] In January 1923, construction of new Tram line between Kochugaon- Fakiragram was started. The embankments of bridges stood on the new line before the rainy season of 1923. On the southern side of Hel Bridge, thirty feet length was expanded for passing more water during flood and about a mile of embankment for the protection of the line by the end of March, 1923.[85] 15 miles long

lines including 17 permanent and 30 temporary bridges were completed.[86] In the meantime, an unfortunate accident was occurred on the line where Mr. Simeon, Deputy Conservator of Forests was so badly injured in the derailment of a motor trolley and died in the last month of 1923.[87] He was succeeded by Mr. H.P Smith, Deputy Conservator of Forest. Under his supervision, 42 bridges were completed by January of 1924.[88] Total cost of the line including purchased of locomotive engines was Rs. 2, 43,927 against the estimate amount Rs. 2, 90,850. A new 24 lbs. rail locomotive was brought to run on the line which was opened for traffic by March of 1924.[89] Mr. H.P Smith credited all the effort of construction of line to Mr. Simeon.[90]

In July 1924, flood caused damage the embankment and washed away the river edge in several places because of newly constructed abutments which had no time to consolidate. In the same year, forest department purchased a new heavy locomotive engine to run on new track. Therefore, the wooden beams of Hel and Longa bridges were replaced by steel girders. On the other hand, wooden beams were also being used to extend other bridges and strengthen the abutment. Forest department had undertaken a defensive work to prevent the soil erosion of Hel river.[91] All works of Tram line and bridges were completed under supervision of Mr. H. P. Smith.[92]

At the end of October 1926, Tram line was inspected by Deputy Engineer and Chief Loco Superintendent of Eastern Bengal Railway respectively at the request of Government of British India. They reported all the condition of line was satisfactory and notably suggested continuous checking of bridges should be carried out. During the working year of 1925-26, Barclay locomotive was repaired which was out of work for some months. A new 20 horse power Orenstein and Koppel locomotive was purchased and commenced to run at the beginning of December 1926. But it was too small which could not work more. So, forest department purchased another 30 horse power locomotive.[93] By the end of 1926, another locomotive was also sanctioned by Government of British India. Thus, four locomotive engines were in used.[94]

13 years old locomotive required overhaul.[95] Therefore, a new locomotive was arrived in December which worked 204 trips in between Kochugaon and forest section.[96] And, it made 190 trips between Kochugaon to Fakiragram.[97] In 1926, a new water pump was erected at Kochugaon to supply sufficient water into the forest.[98] Moreover, a saw mill was set up in Kochugaon near Tram station in 1926 and many labourers were employed for cutting and scantling the timber.[99]

In 1927, Chief Conservator of Assam appointed an Engineer. Under his care Tram service reached a high state of efficiency. He placed all locomotives on the line to transport Sal timber and other. Four engines were kept in old Carpenter's shed of Kochugaon after proper repaired.[100] All steel trucks of Tram were improved for running on the line without fear of derailment.[101] All old iron trucks gave substantially good service which were fitted with frames, designed to prevent sleepers sliding backwards and forwards for the transportation of timber but it did not prove satisfactory because of too clumsy and heavy.[102] Therefore, forest department proposed to replace all old iron trucks in stock with new pattern trucks.[103] Besides, the wooden trucks formerly constructed in the workshops were also in position for temporary use but it required regular repairing.[104] In the same year, forest department purchased fifty six new model iron trucks from Messer Martin & Co., at the cost of Rs. 17,468 for the improvement of communication.[105] A new speed trolley was purchased for Rs. 761 and 10 new tip trucks at the rate of Rs. 2, 267.[106] 14 lbs. track between Kochugaon-Fakiragram sections was replaced by 24 lbs and old track was used for siding in the forest section. A bridge was constructed over Mora Hell and extended a short distance line from Fakiragram forest depot to Fakiragram Railway Station for direct transportation.[107]

All bridges on the main line were completely checked during the working year of 1927-28.

Trips performed by 4 locomotives are as follows:-

No. 1 (20 H.P.O and K)……366 trips.

No. 2 (30 H.P. Andrew Barclay)……. 261 trips.

No. 3 (30 H.P.O. and K)……. 359 trips.

No. 4 (20 H.P.O and K)……... 469 trips.

In 1928-29, there were 40 miles of tracks consisting of 17 ½ miles of main line from Kochugaon to Fakiragram and 22½ miles inside the forest including siding section.[108] However, Tram Engineer reported that extensive repair and replacements would be necessary in every 2 years.

In working year of 1929-30, Tram track was extended by 42 miles against 40 of previous year. Increasing of new track inside the forest facilitated to tap timber from remote forest. The wooden beam of bridges was replaced by a steel beam. Out of 45 bridges, the wooden beams of 36 bridges were replaced by steel beam and realign the track. There was 24 lbs. second hand track which was in good condition. The second hand track was purchased from Chaman of Calcutta, where it was kept in stored by military department. Another eighty-six new timber trucks, one speed trolley and 3 water tanks were also purchased during the working year of 1929-1930.[109]

In working year of 1931-32, total length of Tram line was 44 miles. Tram line was divided into two sections: firstly, forest section consisting of 26 ½ miles of track including 10 ¾ miles siding. Secondly, it was Fakiragram section of 17 ½ miles which was running between Kochugaon and Fakiragram railway station of Eastern Bengal Railway.[110] Fourteen bridges including Hel Bridge were badly damaged by the earthquakes of 1930. These bridges were reconstructed within a short time and the bridge No. 46 of Fakiragram forest depot was elevated from the ground level due to flood.[111] Total expenditure of maintenance of permanent line was Rs. 13,198-15 annas-6 pies and Rs. 32,389-14 annas-6 pies had spent for repairing bridges and using the iron girders.[112]

Bamba extension was 15 ¾ miles which constructed in two tractions such as 12 miles of 24 lbs. rail and 3 ¾ miles 14 lbs rail. Besides, 10 ¾ miles side lines, 1 ¼ miles were 24 lbs., 4 miles under 18 lbs. and 5 ½ miles under 14 lbs. rails. Although, 17 miles line of Kochugaon - Fakiragram section was 24 lbs. track and ½ mile from Fakiragram forest depot to railway station was 14 lbs.[113] Rajib Handique wrote that 'the Tram line was the most important method of rapid transport of timber from the Kochugaon forest to Fakiragram railway station of the Eastern Bengal Railway'.[114] About 75 percent timber was exported from Central range of Kochugaon reserve forest by Tram.[115]

In 1932, Kerr Stuart Loco (55 horse power) was used for trial by Messrs Robert Hudson (India) Limited of Calcutta. But it was not suitable to run on the track and returned to company. [116]

There were 45¼ miles of track against 44 miles in the year of 1932. Gradually, Tram line was increased in the forest section to tap more timber from remote forests. In the forest section the total length of main line including Bamba extension was 28 miles and Fakiragram section was 17½ miles. Total expenditure under maintenance and repair of the permanent line was Rs. 17,036 during the working year of 1932-33. Tram was

directly supervised by Forest Engineer from the offices of Chief Conservator, Shillong.[117] In 1935, Tramway was constituted an independent unit of commercial accounting under the control of Divisional Forest Officer, Kochugaon Forest Division.[118]

Tram line was severely damaged during Second World War which was used for military road. Therefore, it required considerable repair. The repairing work was carried out on Bamba line, 14 lbs. rail had been replaced by 24 lbs., 16,000 rotten sleepers in the forest section were replaced by new one and 10,000 more sleepers were changed in Kochugaon-Fakiragram section during 1946-47.[119] Expenditure of reconstruction and repairing of Tram line was Rs.58, 886-10-0.[120]

At beginning, Tramway was set up from Kochugaon to Hel block, which ran between Pekua & Hel rivers. Goalpara Forest Division (present Kochugaon Forest Division) had a fame of having one Tramway in the eastern region of the country. Tramway was extensively used for carrying labours, materials, drinking water, logs in the inaccessible forest of Ripu reserve. Tramway which passed through the remote forest areas of Kochugaon Forest Division undoubtedly indicated the proper utilization of the forest's wealth. The establishment of Tramway was mainly connected with Central Range, Sanfan Range and Logging Range with full infrastructures.[121] The utility of Tram was great in those days as the roads were very few and there were no other ways to extract timber. Tram line extension had been carried out in forest section to tap the timber of Polo, Hel and Bamba blocks.[122] Tramway was not only useful for extraction and transportation of timber from the forests but also supplied water to labourers who were working in the waterless Bhabar tract during summer and cold session. So, Tram became as lifeline for the labourers. Several attempts were made in the Bhabar tract to get water by digging wells but the presence of large boulder beds in 30 feet deep shown great hindrance. Water wells were sunk near the Hel river where water was found at a reasonable depth.[123] Mr. Munro, Deputy Conservator noted that 'the using of Tramway not only saved the expenses of transport but also rendered good service for extraction of Sal timber from waterless forest tracts.[124]

Thus, Tram service continued till post independence period. However, the importance of Tram service was reduced after the development of trunk roads towards the forest area. Trunk Road passed through *Duars*, started from Sonkosh and passed through Kochugaon, Patgaon, Sidli, Chapaguri, Bijni and Raha.[125] Dhubri Local Board constructed a road starting from Dhubri and ran Kochugaon which was known as D.K.

Road. D.K road is still in existence. The cart roads of Bamba - Atiabari and Raimona-Gossaigaon came under weather roads. On the other hand, Fakiragram-Serfanguri Road and Bilasipara to Gurubhasha were transportable by Lorry Service. Lorry services were used to carry out Sal timber from the forest depots to other states. The opening of new railway station at Gossaigaon also reduced the role of Tram considerably.[126] After the independence of India, heavy Lorry services were extensively used for transportation of timber.

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