RESOURCE MOBILISATION & DRAIN OF WEALTH
The industrial development of Assam in the nineteenth century, like the rest of India, was directly linked with the development of British industry along with the progress and prosperity of the British people. The British rule in Assam had ensured security and created the necessary environment for the flow of capital. In the absence of indigenous capital and enterprise, the British capitalists had taken the lead in promoting modern industries in the province. This was by and large a result of their political supremacy. In this context, the development of the three major industries, viz. tea, coal and oil, the growth of certain ancillary industries, and the development of a communication network system, have already been reviewed in earlier chapters. It was, however, generally recognised that these constituted the mobilisation of just a portion of Assam's economic potential, and that much more remained to be tapped.

The mobilisation of resources was influenced by various interests. While the British investors were anxious to find an outlet for their surplus capital, their manufacturers were equally keen to preserve the Indian market as a monopoly for their products. The Industrial Revolution in England had created various social classes. The trading and industrial classes that newly emerged considerably undermined the old landed interest. As these powers were a force to be reckoned with, the Government safeguarded their interest by encouraging the investment of British capital in the colonies in only such fields which would not rival British products or hinder British trade in any respect. Under such circumstances, the industrial development of
Assam was naturally dwarfed in spite of the fact that she possessed tremendous and varied potential. The systematic de-industrialisation of the indigenous industries has already been referred to earlier.\(^1\) As a result, with the advent of the British, the local people not only lost their self-sufficiency and internal markets, but they also had to resort to using foreign manufactures on a large scale. This was merely a reflection of an all-India phenomenon. Justice Ranade, commenting on this, wrote:\(^2\)

> India, fifty years ago, clothed herself with her own manufactures, and now she is clothed by her distant masters. The same is the case with wool, silk and other textiles, with oils and hides......

In Assam, de-industrialisation was synchronised with the setting up of a new economy which, in actual effect, brought the province completely under foreign economic domination. In fact the idea behind the implementation of this new economic policy was to bring Assam and the adjoining region into the industrial map of India. In this connection the development of Chittagong as a port to boost the industrial growth of Assam and the construction of the Assam-Bengal Railway, have already been mentioned.\(^3\) The establishment of the tea, coal and oil industries had paved the way for the drain of wealth. In the next phase, other resources were sought to be mobilised.

Resource mobilisation took two broad forms. First, the exploitation of the hitherto untapped sources, and

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1 See Chapter - II.
3 See Chapter VI.
secondly, the regeneration of certain old indigenous industries. Regarding the former, a general survey revealed that investment in agro-based industries would not only serve the mercantile interest but promised to be the most lucrative as well. Attention was, accordingly, given to the cultivation of products like rubber, rhea, lac and jute. It was observed that these products grew naturally, often in a wild state, in the province and it was hoped that, with proper care and effective supervision, a flourishing trade could be established.

The regeneration of the indigenous industries proved a more difficult task. The second half of the nineteenth century saw a change in the official British attitude. Having successfully de-industrialised the province by the first half of the century, the Government now began to show an interest in reviving certain small-scale industries. The commercialisation of these products was allowed to the extent that it did not adversely affect, in any way, the British industrial interest. The revival was not easy, as the official report commented:

The present decadent condition of the indigenous industries is the result of many economic and political causes, which have worked uninterruptedly for many generations and it will be no easy task to arrest the disruption which has followed. For while Assam has lost her own industries, other nations are in possession of her markets, and the great start which they have gained, coupled with their manifold resources in modern methods, machinery and almost unlimited capital will make the struggle a most unequal and difficult one.

4 G.N. Gupta, A Survey of the Resources and Industries of Eastern Bengal and Assam 1907-08, p 108.
In the meantime the native Assamese industries had become relics of a past order. The greatest problem, therefore, lay in the situation in which the important question was whether, in utility and cheapness, there was any possibility of the products of Assamese indigenous industries holding their own against the products of western industries. The urgency of Government aid to assist and develop indigenous industries was thus acutely felt in certain quarters. Hence, towards the latter part of the nineteenth century, attempts were made to assist those indigenous industries which were likely to have a future and which were commercially possible to revive. As such, attention was drawn towards regenerating industries like silk and sericulture, cotton, gold washing, leather and metal work. Years of stagnation had resulted in an eclipse of native enterprise in the industrial sphere. The idea behind Government assistance was to attract the Indian capitalists with whose collaboration the English merchants could set up a profitable trade in these products.

MOBILISATION OF NEW RESOURCES

Rubber

The nineteenth century saw a rapid increase in the commercial value of rubber mainly because it possessed qualities of elasticity, was a non-conductor of electricity and was impervious to air and water. The product could not be produced artificially and no suitable substitute for it had been discovered. As the automobile industry grew, large quantities of rubber were

5 ibid.
required for tyres. Initially, the world's increasing demand for rubber was largely met by the Para Rubber of Brazil, but soon it became important to have rubber producing areas under one's control.

The Indian rubber (caoutchouc) was discovered in Assam soon after the province was occupied by the British. The caoutchouc forests in Assam extended over large areas in the Kamrup, Darrang, Nowgong, Sibsagar and Lakhimpur districts. They were generally found in the foot of the hills in low and damp ground amidst dense evergreen forests. There were three species of rubber trees found in Assam, viz., Ficus elastica, Ficus laccifera and Ficus obstusifolia. The last two species were found in small numbers only and yielded much less rubber. The gum or the juice was extracted by transverse incisions across the bark down to the wood, with a full grown tree having many such incisions at the same time. The quantity of gum obtained from a single tree had not been accurately measured, but half a maund was approximately the average produce.

The trees were apparently far more numerous in the forests beyond the British boundary than within the latter, and this caused serious difficulties in following a method of management. The system hitherto followed consisted of annually farming out the right to collect

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6 The caoutchouc tree occurs, very generally, as a solitary tree. Occasionally, however, two or three may be grouped together. In size they are far superior to all other trees and especially in the extent of surface covered by branches. "Report on the caoutchouc tree of Assam", J.A.S.B. VII, Jan.-Dec.1838, pp 132-42.

7 W. Schlich, Memorandum on Forest Operations in Assam, A.S.R., File No.38/45, 1873, No.94C.


rubber within certain limits. The purchasers of these rights assumed, at the same time, the exclusive right of buying up the foreign rubber imported into their mahals. The lucrativeness of the transactions attracted numerous speculators who very soon found out that the right regarding foreign rubber was merely assumed. This led to many complications.

The earlier leases for working out India rubber were given free of payment, the only condition being that a certain number of trees were to be planted by the lessee. In 1863, the first annual lease was made to C.P. Bruce, an English merchant at Tezpur, on payment of Rs.1525. The growing demand for rubber in England encouraged an increasing number of speculators to enter the field. In their zeal to derive the maximum, they often resorted to the overtapping of gum, thereby seriously injuring the healthy trees. In 1865, therefore, a proposal was made to replace the system of annual farming of the rubber forests by an arrangement made for ten years. The Board of Revenue, however, observed that a ten years' lease was no protection against overtapping and recommended the continuation of the existing system. Instead, it was decided to prohibit the tapping of trees on Government land and to open a couple of well-defined ranges at a time to licence holders only. In actual practice, however, a good deal

10 Indian rubber collected in and imported from territory to which the British civil and revenue jurisdiction had not been extended.


13 A.S.R., File No.38/45, 1873, No.2 - 5.

14 ibid., Forests, January 1872, No.16.

15 ibid.
of rubber continued to come from the Government forests.\textsuperscript{16} This fact was recognised and in 1879 the Inspector General of Forests recommended the sale, by public auction, of Government rubber in mahals and this system was accordingly adopted.\textsuperscript{17} Almost simultaneously, it was decided that artificial propagation of the India rubber would not only prevent overtapping but would also be a sound financial proposition.\textsuperscript{18} G. Henderson, Officiating Superintendent of the Royal Botanical Gardens, expressed a very strong opinion that rubber plantations "ought and must be undertaken" since he considered them to be "the most lucrative and hopeful of all plantations."\textsuperscript{19} He further advised that if rubber plantations were to pay, they would only do so if established on a large scale and under European superintendence.\textsuperscript{20} Major General R. Strachey, who was consulted on the subject, was of the opinion that "anything tending to increase the supply of India-rubber would facilitate the adoption of the material for springs for railway vehicles and other purposes of the kind." If the product could be got procured from Assam, it would add to the number of valuable products which, he felt, was a consideration of much practical importance.\textsuperscript{21} Henderson, while agreeing with the above view, also suggested that the Government should encourage the planting of the \textit{Ficus elastica} along roads and railway lines as "it grows rapidly, thrives almost anywhere.

\begin{footnotes}
\footnote{16}{Gupta, \textit{Op.cit.}, p 137.}
\footnote{17}{Ananta Ram Aggarwal and Chunu Lal Saroge were two prominent Indian farmers of rubber 'mahals'.}
\footnote{18}{A.S.R., File No.43/51, 1873, No.11.}
\footnote{19}{\textit{ibid.}, File No.38/45, 1873, Nos. 2 - 5.}
\footnote{20}{\textit{ibid.}, File No.119/216, 1873, No.6.}
\footnote{21}{\textit{ibid.}, File No.43/51, 1873, No.6.}
\end{footnotes}
gives excellent shade and is a very handsome as well as being a very valuable tree.\(^\text{22}\)

With the increasing demand for rubber, it was essential for Britain not only to preserve the existing rubber-producing trees of Assam from wasteful exploitation, but also to embark on new plantations. Accordingly, two experimental rubber plantations were set up in 1874, one at Charduar near Tezpur, with an area of 2754 acres and the other at Kulsi, in the Kamrup district, with an area of 100 acres.\(^\text{23}\) A suggestion was made that plantations of the para rubber seed (\textit{Hurra elastics}) should also be experimented upon,\(^\text{24}\) as the para rubber was cleaner, drier and more durable. The difference in the mode of collection\(^\text{25}\) was presumed by some to be the cause of this. However, the more likely factor was the difference in the chemical properties of the milk of the two trees belonging to two distinct families. The Brazilian collectors affirmed that the smoke of the particular nut was also responsible for the difference in quality.

The Government plantations were of the \textit{Ficus elastica} species. The production of rubber over the year proved so profitable that the Government decided to

\[\begin{align*}
22 & \text{ibid, No.11.} \\
23 & \text{ibid, No.15.} \\
24 & \text{ibid.} \\
25 & \text{In Assam, the juice was either allowed to stand until it began to coagulate, then boiled in water and then pressed. Alternatively it was allowed to become fine in the air and then rolled up into balls. In Brazil, the juice was either poured into moulds and each successive layer was dried over the fire of a nut (\textit{coros coronata}) which emitted a lot of smoke, or, the mould was immersed in the juice and smoked as before.}
\end{align*}\]
establish a monopoly of rubber. A Government officer was deputed to buy all the available rubber and sell it periodically by auction or otherwise. It was further decided to impose a uniform rate of royalty and duty on all rubber produced in Assam, from trees which were the property of the Government and on rubber imported from beyond the frontier. The importance of a proper administration of the rubber revenue can be estimated from the fact that a European trader of Upper Assam offered in the year 1872 one lakh of rupees per year for a three years monopoly of the rubber of the Lakhimpur district alone.

The rubber collected in Assam was sent to Calcutta. It was said to be "so much purer and cleaner than ordinary rubber", that it fetched nearly 40% more than the normal market price. The total value of this trade was considerable as the price of rubber from Assam in Calcutta ranged between Rs.45/- and Rs.80/- per maund.

26 It was felt that the advantages of monopoly would be threefold. (i) It would provide a satisfactory solution to the difficult relations with the frontier tribes. (ii) It was the only basis on which a scheme of forest conservancy of caoutchouc could be founded. (iii) It would increase the revenue considerably.

27 A.S.R., File No.43/51, 1873, No.15.
28 ibid., File No.38/45, Nos. 2 - 5.
30 ibid.
The following table shows the amount of rubber exported from Assam between 1870 and 1873:

**EXPORT OF RUBBER FROM ASSAM**

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity (MDS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1870</td>
<td>7,500</td>
</tr>
<tr>
<td>1871</td>
<td>12,000</td>
</tr>
<tr>
<td>1872</td>
<td>21,000</td>
</tr>
<tr>
<td>1873</td>
<td>11,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>51,000</td>
</tr>
</tbody>
</table>

In the beginning the Mikirs', who were said to have been the best tappers in Assam, were employed on a daily wage of eight annas per day. Alternatively, Nepalese, Assamese or Garo workers were engaged and paid between Rs.20 and Rs.30 per maund of rubber collected.  

The native method of tapping, especially root tapping, proved to be most destructive. Yet to avoid loss of large revenue the Government did not pay any heed to the damage. It was not until 1906-07 that the duty on root rubber was increased to Rs.50 per maund while the duty on tree rubber remained the same, i.e., Rs.17 per maund. In the meanwhile, the damage had already been done and most of the natural trees had been permanently

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31 ibid.
33 ibid.
destroyed. This was largely reflected in the falling production of rubber, as can be seen from the following Table.34

<table>
<thead>
<tr>
<th>YEAR</th>
<th>PRODUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1877-78</td>
<td>10,743</td>
</tr>
<tr>
<td>1881-82</td>
<td>8,663</td>
</tr>
<tr>
<td>1905-06</td>
<td>4,535</td>
</tr>
</tbody>
</table>

The situation had deteriorated to such an extent that while commenting on the commercial prospects of the Assam rubber, Dr. Mann, Assistant Conservator of Forests, Assam Division, wrote:35

On present evidence, it would seem to make investment in Assam rubber a very doubtful speculation in North-East India. In fact, the only possibility of the Ficus elastica culture would seem to be as a by-product to tea culture, on land now waste and unsuitable for tea. It may be that future discoveries with regard to improved methods of growth, means of tapping the plants annually without injury, or growing of a larger number of healthy heavily yielding plants on the same areas, may alter the opinion above expressed.

This conclusion that Assam rubber culture could only continue as a dependent of another larger and more profitable industry and that it could occupy only inferior land, was not accepted by all. For example, Coupeland, Deputy Conservator of Forests, Assam, was

34 Tabulated from information in Trade Reports for Eastern Bengal and Assam for 1978-79, 1983-84, 1907-08.

convinced that it was still possible to make rubber plantations in Assam a paying and profitable concern if the business was managed efficiently and if proper methods of tapping the rubber were followed.  

One recurring theme in all the Government reports was that non-availability of local labour proved the most serious impediment towards the successful operation of any project. This was undoubtedly true to a certain extent. However, it should be noted that local labour could have been attracted with proper wages. In lower Assam for instance, Alymer, the Assistant Conservator of Forests, succeeded in making extensive plantations of teak, rubber, toon and sissu entirely by local labour. By paying an attractive rate to every labourer who came and by giving the men perfect liberty to leave when they wished, the officer was able to obtain as much labour as he wanted. It will, therefore, not be wrong to assume that the apathy of the concerned officials was responsible, in a large measure, for the decline of rubber production in Assam. Had they taken adequate interest from the beginning, rubber plantations could perhaps have been developed as extensively as the tea plantations in Assam.

One important point to note here is that the entire quantity of rubber produced in Assam was exported from the

36 ibid.

province in the raw state. No attempt, whatsoever, was made to process the rubber in the province.

Rhea

Another article which drew the attention of the British was the "Kunkhoora" or "Rhea" (Bohneria nivea), a fibre grown locally in Assam. Ever since the rapid growth of the shipping industry in England, there was an increasing demand for canvas, sailcloths, lines, ropes and cables. All these were manufactured with Chinagrass or Ramie imported from China, the Far East or Russia. The Import Trade Returns of the United Kingdom showed a large and continually increasing delivery of hemp. In 1879, imports from the Phillipine Islands alone had amounted to almost 20,000 tons valued at about half a million pound sterling. Hence the necessity of possessing a source of this fibre under their control was keenly felt by the British merchants.

In Assam, the Rhea fibre was generally cultivated in small patches by the fishermen near their huts. Some also grew wild at the foot of the hills. Manure, moisture and shade were essential for the quick growth of the fibre in order to enable it to grow to a height of eight feet from which a fibre stock of six feet could be separated.

Dr. Forbes Royale, who was deputed to Assam to


39 Revenue and Agricultural Department, (Agriculture and Horticulture) July 1881, No.29.

ascertain the properties and value of this product, commented that Rhea and Chinagrass were identical and that "it was likely to prove one of the most valuable products of India, for in strength it exceeds the best hemp and in firmness it rivals the superior kinds of flax."  

As early as 1803, Dr. Roxburgh of the Botanical Gardens, Calcutta, had written that it was "one of the strongest fibres that he had met with" and that it could be easily propagated. In 1811, Dr. Buchanon, also of the Botanical Gardens, sent three bales of the Assam fibre to M/s Sharp and Mark Lane, England, to be tested. The firm reported that the thread spun from this fibre bore 252 lbs weight, whereas the weight borne by Russian hemp of the same size was only 84 lbs. Marshall of Leeds, an authority on Chinagrass, also corroborated this view and suggested the extension of the ordinary cultivation of the crop and the collection of the wild Rhea in increased quantities. He also urged that the fibre should be prepared as carefully as possible for the English market. It was further pointed out that the Rhea could be produced and sold with profit "at as cheap a rate as Russian hemp" and would speedily undersell all other fibres as four or five crops of the fibre could be obtained within the year from the same plant. It was

41 ibid.
42 ibid.
43 ibid.
44 ibid.
hoped that the Assam Rhea would not only meet the British demand to a large extent, but could be exported to other countries as well. 45

With a view to develop the fibre of the Rhea plant, as a regular industry, the Government of India offered in 1870-71, a prize of 5,000 pound sterling to the inventor of the best machine or process for its preparation. 46 It was believed, at that time, that the real obstacle to the utilisation of this staple was the want of suitable machinery for the preparation of the fibre. Only one machine was presented for trial and this was found to be wanting in many respects. As the need for a good machine still existed, the Government of India decided to renew the offer of a prize in 1877. 47 The machine or process required was to be "capable of producing by animal, water or steam power, a ton of dressed fibre of a quality which shall average in value not less than 45 pound sterling a ton in the English market." The machinery was to be simple, strong, durable and inexpensive and suited for erection in plantations where Rhea was grown. Seven machines were presented for trial but none of the fibres produced came up to the prescribed standard.

In view of the above, the Government felt that Rhea plantations were not a commercially viable proposition. They decided not to invest in such plantations till such time that "private enterprise has shown that the

46 Home Revenue and Agriculture Department, (Agriculture and Horticulture) May 1881, No.22.
47 ibid.
cultivation of the plant can be undertaken with profit and that the real need has arisen for an improved method of preparing the fibre in order to stimulate its production."  

In order to aid private entrepreneurs, however, the Government was willing to place roots at their disposal. A plot of land of about three acres was kept at the Botanical Gardens at Howrah for the supply of roots to intending growers. A sample of Chinagrass, valued at 50 pound sterling a ton in the English market was deposited in the Economic Museum at Calcutta. An endeavour was also made to obtain specimens of the fibre produced by those seven competitors to whom samples of the Chinagrass were sent. It was decided that these specimens, along with the valuations of the experts noted on them, would be deposited in the Economic Museum for inspection by the public.  

Thus during the period of our study, attempts to set up an industry in the production of the Rhea fibre proved abortive.

Jute

The trade in jute had been important since the early days of the East India Company, the purposes of its use being the manufacture of cords, ropes etc. Till about 1830, the manufacture of gunnybags and jute cloth had been the monopoly of the Bengal handloom weaver. Thereafter, an active manufacturing industry had sprung up at Dundee and it was found that it would be much more profitable to export the raw jute than to produce gunnies.

48 ibid.

49 ibid.
on the handloom. The importance of jute as a raw material increased rapidly especially when, as a result of the Crimean War, supplies of Russian hemp were cut off. Within a few years, therefore, the Bengal jute handloom industry was totally deindustrialised as the entire quantity of jute was exported in a raw state to feed the mills in England.

The increasing demand for jute necessitated the extension of cultivation and the Government of India began to look beyond the borders of Bengal for probable areas. Neighbouring Assam, rich in natural resources, provided yet another field for exploitation. Since jute thrives on sandy or clayey loam soil, many regions in Assam were suitable for its cultivation. It was, therefore, encouraged in all the plains districts of Assam and the plains portion of the Garo Hills. However, it was produced on a commercial scale for export mainly in the districts of Goalpara and Sylhet which adjoin the jute growing areas of Bengal. In upper Assam, jute cultivation on a commercial scale had a slow start. In these areas, jute was grown mainly in small patches on homestead lands or on the periphery of rice-growing fields. In these tracts, the land under cultivation was not held for more than three years in succession after which it was abandoned for a fresh plot. In this way, the ryots were able to get two crops a year, one of early Ahu rice and the other of mustard, whose value was almost the same as that of jute.

50 A.S.R., Revenue A, July 1897, Nos.45-47.
51 ibid.
Director of Agriculture, Assam, held that "jute is almost, if not more, twice as paying as Ahu rice, and that as such, the ryots could double their income, with a little extra labour, if they substituted jute for Ahu rice." P.J. Monahan, Director of Land Records and Agriculture, found this suggestion unacceptable. He felt that the promotion of jute cultivation, at the expense of rice cultivation, would lead to an acute scarcity of food grains. He, however, agreed to adopt measures for the encouragement of immigration and reclamation of waste lands, distribution of seeds to the cultivators and the furnishing of information regarding the methods of cultivation of jute and the preparation of its fibre. Nevertheless, he categorically stated that any cultivation on a commercial scale should be a concern of the private entrepreneurs. This clearly indicates that the Government at that time was not prepared to invest in the cultivation of jute because they were not sure about its commercial viability.

The following table shows the amount of jute exported from Assam during the period 1880-1897:

**EXPORTS OF JUTE FROM ASSAM**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>BRAHMAPUTRA VALLEY</th>
<th>SURMA VALLEY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880-81</td>
<td>59,249</td>
<td>9,787</td>
<td>69,036</td>
</tr>
<tr>
<td>1889-90</td>
<td>225,742</td>
<td>15,480</td>
<td>241,222</td>
</tr>
<tr>
<td>1893-94</td>
<td>324,911</td>
<td>17,964</td>
<td>342,875</td>
</tr>
<tr>
<td>1896-97</td>
<td>348,332</td>
<td>49,837</td>
<td>398,169</td>
</tr>
</tbody>
</table>

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52 ibid, Revenue B, April 1898, Nos. 579 - 84.
53 ibid.
54 ibid.
55 ibid.
56 Tabulated from information in the Reports of the River Borne Trade of Eastern Bengal and Assam for the respective years.
The above figures show that the production of jute in Assam was adequate to justify the setting up of at least one jute mill in the province. In fact, by the beginning of the twentieth century, production had further increased as jute cultivation was taken up in a considerable scale by the Muslim immigrants from East Bengal. But once again nothing was done in this respect because the raw jute was required by the British mill owners and it was primarily in their interest that the jute cultivation in Assam had been originally encouraged and extended.

**Lac**

Another agro-based industry which promised considerable economic potential was the cultivation of lac. This industry was one of the most ancient of the minor industries in India. The cultivation and collection of lac was almost entirely in the hands of the tribes dwelling in the poorer areas, and the methods of propagation and collection had remained unchanged for centuries. These methods satisfied the local demand for the article which was mainly used as a dye. There was comparatively less demand for lac resin as its properties had not been fully ascertained. At the beginning of the nineteenth century, the value of lac dye

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was almost six times that of lac resin and it was in this form that the product was then exported.\(^{58}\)

The development of the textile industries had stimulated discoveries in industrial chemistry. The old method of bleaching linen or cotton had been to steep it in sour milk and expose it for some months to the air. This process often took about eight months.\(^{59}\) The necessity of a faster method was urgently felt and various experiments were carried out with chemical and natural dyes. It was in this context that the lac of Assam attracted the attention of the British.

In Assam lac was reared in varying extent in all the districts but Kamrup and Nowgong were the main areas of cultivation. A considerable quantity of lac was also obtained from the Garos who brought it down to the weekly markets at Palasbari, Chaygaon and Boko.\(^{60}\) The lac was collected from three main sources: (i) from natural trees beyond the British frontier (ii) from natural trees in the Government forests and (iii) from trees cultivated in jhums and to a very small extent, on leased lands.\(^{61}\) There were usually two crops of lac a year. The main crop was put on the trees in April and gathered in September, and the second crop put in October and

\(^{58}\) ibid.


\(^{61}\) ibid.
collected in April. The second crop was raised mainly for providing seed for the main crop.

The lac insect was reared on several species of the Ficus family and the bulk of the produce was exported in the form of stick lac, i.e., the lac was collected by breaking off twigs containing lac incrustation a few days before the young larvae swarmed out. At this stage, the twigs were surrounded by deposits of a translucent orange yellow gum in which the insects were embedded. The gummy substance was scraped off from the twigs and separated from the dead bodies of the insects. The gum was then melted, strained, cleaned and sold as shellac or button lac. From the residue a red dye was obtained.  

All purchasers of lac were required to take licences by paying a fee of Rs.3 each and a tax of Rs.2 to the Forest Department. The tax ultimately fell on the growers because the middlemen, who bought the lac from them, deducted the amount of duty while making the payment.

With the introduction of synthetic dyes, lac dye was gradually robbed of its commercial value. However, this was more than offset by the discovery of new uses of lac in Europe and America, thereby resulting in an increased demand in foreign markets. In fact between 1868 and 1900, the value of the exports of lac dye from

62 E.P. Stebbing, "Note on the Lac Insect", Gazetteer of Bengal and North East India, 1905, p 78.


64 As a spirit varnish and polish for furniture and metal, as a stiffening material for hats, as an ingredient for lithographic ink and as sealing wax.
India had fallen from Rs.4,45,612 to nil, while that of shellac exported rose from Rs.18,41,491 to Rs.92,65,600. The use of lac was more likely to be extended than restricted and was not threatened by any rival. The artificial substitute, the discovery of which had been announced by Germany, had not yet been marketed. India enjoyed a virtual monopoly of the raw article as Indo-China, the other competitor, exported only an insignificant quantity of an inferior kind. Hence it was only natural that Britain began to view the cultivation of lac in Assam with a renewed and greater interest.

Lac cultivation in Assam, although fairly extensive, had not been on a scientific basis. An Enquiry Committee suggested that "the formation of lac nurseries is strongly to be recommended in Assam with a view to increasing the amounts available for export." As a consequence, a couple of experimental farms were set up with promising results. However, much of the lac continued to be collected from the older sources. Almost the entire quantity of lac produced in Assam was exported in a raw state. The following table reflects the growing

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trend of the export of lac from the Brahmaputra valley:

**EXPORT OF LAC FROM ASSAM.**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>VALUE IN Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890-91</td>
<td>1,13,000</td>
</tr>
<tr>
<td>1900-91</td>
<td>1,99,000</td>
</tr>
<tr>
<td>1903-04</td>
<td>4,92,000</td>
</tr>
<tr>
<td>1906-07</td>
<td>22,49,629</td>
</tr>
</tbody>
</table>

The quantity of lac produced in Assam was very high. While commenting on the samples sent to him for sale, a broker at Calcutta wrote:

> If a constant supply of such a superior article could be depended upon, it would be much sought after in the market and continue to demand a high price.

Yet, inspite of such positive comments, the lac industry failed to get due recognition. E.P. Stebbing, in his note on the lac insect wrote:

> It would seem a pity that the question of lac cultivation is not taken up more seriously in Assam. It would appear advisable for the Forest Department to take up the question with the object of showing what can be done by scientific management and by introduction of better methods. The chief improvements required to be made are in the direction of the formation of regular areas of

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69 B.C. Allen, *Gazetteer of Bengal and North East India, 1905*, p 127.

70 *Foreign Department Proceedings Revenue A, July 1872, No.23.*

coppice either from seed or cuttings, which should be worked on a definite rotation. Further, it is stated that lac reared on Cajanus indicus, which is said to be the best lac produced in Assam, can be put on other lac rearing plants. Crops of lac could thus be raised in nurseries and distributed to inhabitants in the forests and villages.

Stebbing's concluding statement that "it is almost inconceivably surprising that the cultivation of lac has been so neglected in the province of Assam," brings out clearly the apathetic attitude of the Government. It is also of significance to note here that no attempt whatsoever was made to set up a factory for the manufacture of shellac in Assam. The official report on industries in the province for 1907-08 state that "the feasibility of starting factories for the manufacture of shellac should be considered. As far as one can see, these factories ought to pay." However, no positive step was taken in this regard although in that year itself 45,028 maunds of lac, valued at Rs.22,49,629 were exported from the province.

REGENERATION OF NATIVE INDUSTRIES

The regeneration of native industries, as mentioned earlier, formed part of the resource mobilisation programme of the colonial regime. The artistic excellence and beauty of many of the indigenous products were never disputed. It was believed that if they could be revived, the exporters of these articles could

73 ibid., p 83, The Price of lac varied greatly from season to season, ranging from Rs.20 to Rs.60 per maund.
"attempt to secure markets in other parts of Asia, like China, instead of attempting to compete with European manufacturers in their own homes." The Government, therefore, set forth to arrest the further decline of indigenous crafts, to regenerate them if possible, and to lead local enterprises into these small-scale industries. It was generally recognised that the cheapness of machinemade articles had largely contributed to the decadence of the handmade industries. If a fresh lease of life were to be given, the Government would have to be prepared to devise ways and means by which the existing methods of native production could be made less expensive. It was, therefore, necessary to ensure that only those industries were encouraged whose products had an adequate local demand and for which raw material and labour were available locally. Another important factor was the question of local capital investment. The industrial development of the province had so far revealed an absence of Assamese industrial enterprise. The Government indentified the following factors as being mainly responsible for the prevailing situation in Assam: (i) insufficiency of fluid capital; (ii) absence of skilled supervision in technical matters; (iii) want of trained labour; and (iv) lack of knowledge of

business methods. It was hoped that Government assistance in the above matters would remedy the situation.

**Metal Work**

In Assam, the metal industry was confined to the production of utensils for household use. As has already been mentioned earlier, the local products had to face stiff competition from imported enamel and China vessels. Except for a metal known as bharon, a mixture of copper and zinc, no alloy was made locally. The braziers used imported brassplates and the coppersmiths used imported copperplates. Almost all the bell metal utensils were made by melting down the metal of old vessels. Hence the cost of articles manufactured from these metals was considerably higher than those of the imported varieties. The demand for enamelware or China appeared to be higher among the muslims than among the Hindus. As the population of Assam was predominantly Hindu, there was comparatively less demand for enamelware or China than in the neighbouring Eastern Bengal where the population was predominantly Muslim. Therefore, in spite of severe odds, the local industry had managed to survive for sometime in certain centres like Gauhati, Sarthebari, Titabor, Hajo and Baligaon. The following table will reinforce the above views:

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76 ibid., p 101.

77 See Chapter II, de-industrialisation.


<table>
<thead>
<tr>
<th></th>
<th>EASTERN</th>
<th>BENGAL</th>
<th>ASSAM</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1903-04</td>
<td>1904-05</td>
<td>1905-06</td>
<td>1903-04</td>
</tr>
<tr>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
</tr>
<tr>
<td>BRASS,</td>
<td>2,77,327</td>
<td>1,33,212</td>
<td>73,822</td>
<td>-</td>
</tr>
<tr>
<td>UNWROUGHT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRASS,</td>
<td>23,06,367</td>
<td>31,16,740</td>
<td>26,23,901</td>
<td>4,39,194</td>
</tr>
<tr>
<td>WROUGHT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPPER,</td>
<td>26,910</td>
<td>1,23,760</td>
<td>37,367</td>
<td>-</td>
</tr>
<tr>
<td>UNWROUGHT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPPER,</td>
<td>2,31,322]</td>
<td>8,87,055</td>
<td>8,42,776</td>
<td>-</td>
</tr>
<tr>
<td>WROUGHT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

80 Bengal Trade Report for 1907-08.
The majority of the metal workers suffered from the handicap of not being directly in touch with the consumers. The industry was almost entirely in the hands of the mahajans who supplied the workers with the raw materials and took back the finished articles from them after paying them wages at fixed rates per seer of manufactured article. In some cases there was a second class of middleman, known as bepari, between the mahajans and the artisans, who brought the metal and money from the mahajans and advanced them to the workers. They then took back the finished products to the mahajans. In either case, therefore, the profits went largely to the middlemen, viz. mahajans and beparis, and the artisans did not earn more than Rs.10/- per month. In cases where the workers worked independently, they are reported to have bought their metal at Rs.30 to Rs.40 a maund and sold the finished product at Rs.60 to Rs.70 a maund. On an average they could turn out between one and a half to two maunds of utensils per month. As such, their monthly income varied between Rs.30 and Rs.70. However, the majority of the metal workers did not have adequate capital to set up their own business. As such they had no alternative but to depend on the mahajans for their livelihood. Their lot was all the more harder because the nature of the work involved in the industry allowed only the able bodied males to work in it.

81 Darrah and Gait, Notes on some industries of Assam, 1884-95, pp 112 - 116.
82 ibid.
The deplorable condition of the metal workers attracted the attention of the Government only towards the end of the nineteenth century. A survey report revealed that the most important help which the industry could receive would be in the direction of readjustment of the relations of capital and labour. If the industry was to be re-established and be expected to flourish, then the financial position of the artisans would have to be improved by freeing them from the clutches of the middlemen. It was also suggested that improved mechanical methods should be introduced so as to make the production easier, quicker and less expensive. The District Boards and Municipalities could take the lead in this matter. It was further hoped that if co-operative societies were formed, the artisans would be brought into direct touch with the consumer and this would go a long way in removing the main anomaly of the profit mongering Mahajans. 84

In spite of these remedial measures that were suggested, there was no serious initiative on the part of the authorities to improve the condition of the metal workers or to modernise the industry. It would appear that the Government was not keen on implementing the recommendations of the committee in view of the fact that the return from such investment would be insignificant.

The general trend of industrial development in Assam also reflected itself in the leather industry. It was not surprising, therefore, that both in volume and value, the export of hides and skins was by far the most important part of the industry. Almost 85% of all hides exported from India passed through Calcutta, and Assam contributed a substantial portion of this trade. The trade figures for the years 1891-92 and 1892-93 show the quantity of exported raw hides from the Brahmaputra Valley as 4,810 maunds and 7,732 maunds respectively. The value of the exports increased substantially from Rs.2,17,000 in 1890-91 to Rs.5,65,000 in 1900-01 and Rs.9,32,000 in 1903-04. There were no proper tanneries in Assam, and the export was entirely in untanned hides.

The method by which the trade was carried on has been described by Watson. Chamars sold the hides to the Muslim traders who exported them to Calcutta. Besides the native collecting agencies, a considerable quantity of hide was also collected by European exporting firms through their own agencies in the districts. The price paid for 20 lbs of medium quality dried hide was Rs.11-14 annas whereas the same fetched a price of about Rs.16 at Calcutta. This meant that the collector's profit was over 45%. In the case of a slaughtered animal, the Chamars had to pay a price to the owner. On

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the other hand, in the case of dead animals, he did not owe any money to the owner. This meant that the entire amount earned on such hides was his profit.

The quantity of leather tanned locally was very small and it was used only for the "roughest kinds of articles." Although most large villages had its shoemakers, the major portion of the leather goods consumed in the province was imported. In 1899 the quantity of manufactured leather imported into the province was less than 3,000 maunds, while the quantity of raw hides and skins exported in the same year was over 40,000 maunds. The irony of the situation can thus be clearly seen. Had the leather been tanned and manufactured locally, instead of the same being exported in a raw state, the product would have been of much greater value. Moreover, it would have provided employment to a large number of persons engaged as tanners. Even in 1905 the total number of persons involved, both directly and indirectly, in the leather trade of Assam was only 4129. The very nominal quantity of dressed hides and skins that were exported only showed that the local industry did not have a share even in the preliminary process of dressing the goods that were exported. The capital necessary for the equipment of a tannery was not large and the raw materials were plentiful. Cumming, in his note on

89 ibid.
90 Trade Report for the Province of Assam, 1899, pp 9 -11.
leather had summarised the following requisites for the successful operation of a tanning factory: (i) a hide market, (ii) a supply of raw material for tanning, (iii) good water, (iv) labour and (v) a local colony of chamars. Most of the above mentioned requirements were available in Assam. Even excellent quality tannin was available locally from certain trees like the Sal tree. The only problem might have been the shortage of local labour. Yet, if a large tea industry could flourish with imported labour, there was no reason why a simple leather industry could not.

It would appear that in spite of great economic potential and bright prospects, the leather industry in Assam was confined to a trade in raw hides and skins in order to protect Britain's home industry. The opening up of Assam had led to a vast influx of immigrant population. By 1902-03 the total imported labour force in the Brahmaputra Valley alone amounted to 3,40,483 or 13% of the total population of 26,19,100 of the valley. This was too large a market for the British manufacturers to lose.

The regeneration of certain other industries were also considered. These included the cotton, silk and gold washing industries. The deindustrialisation of the cotton and silk industries have already been mentioned.

92 Ibid., p 49.
93 Ibid.
94 B.C. Allen, Imperial Gazetteer of India, 1908, p 125.
95 See Chapter II.
Towards the latter part of the nineteenth century British authorities began to take a renewed interest in these industries. Committees were formed to survey the situation and put forth valuable suggestions. Beyond this the Government took little positive action. As a result there was no change in the existing production of cotton or silk. The revival of the gold washing industry, however, received more attention.

In 1852 Captain Dalton had reported that the sands of the Sisi River were highly auriferous. Twenty grains of gold was an usual return on one day's labour by three men who, between them, could wash a ton of rubble. In 1882 a ten years' lease was granted to A Scott Campbell of the right to wash gold in the Subansiri and its tributaries. It was hoped that he would succeed in ascertaining the source of the mineral and in developing the industry. His efforts, however, proved unsuccessful and his application for the renewal of the lease was summarily rejected. In 1894 a syndicate was formed and a considerable sum of money expended in the exploration of the rivers of Lakhimpur. In 1901 a prospecting licence was issued to M/s Winsland and Sutton for a portion of the Subansiri river. However, on receiving unfavourable reports from a mining engineer on the prospect of dredging in that river, they surrendered

97 B.C. Allen, Gazetteer of Bengal and N.E. India, 1905, p 199.
99 ibid., No.1540/32.
100 ibid.
their licence the following year. Further surveys revealed that although many rivers in Assam were auriferous, the extent and depth of the mineral could not be gauged. Moreover, operations could be carried out only in the dry season. It was also uncertain whether the supply of gold, deposited each year when the river rose, would equal the amount removed during the previous season's operations. Taking into account these considerations, it was decided that gold washing was an uneconomic proposition and the idea was, therefore, abandoned.

POSSIBLE INDUSTRIES

The resources that had been identified and mobilised to a limited extent have been mentioned above. The natural wealth of the region, however, was so vast that much of her potential still remained untapped. Had sincere efforts been made to utilise them, the economy of the entire region would have undergone a dramatic change. The scope for establishment of many new industries, whose economic viability had been proved elsewhere in the country, also existed in Assam. Of these, mention may be made of match factories, paper mills, rice mills, chemical factories, diaries, poultry farming and fisheries.

Match Factories

The availability of a variety of timber in Assam

has already been referred to.\textsuperscript{102} One possible industry, therefore, was the establishment of at least one match factory in the province. Troup, the Imperial Forest Economist at Dehra Dun, had circulated a note pointing out that match factories might either be for the manufacture of match sticks only, or for the manufacture of finished matches, in which case other materials, besides wood, would have to be brought to the factory.\textsuperscript{103} He observed that the basic requirements for the establishment of a match factory were a sufficient supply of inexpensive suitable wood, availability of cheap transport and proximity to a river so that logs might be floated. Troup also commented that "the Simul tree cannot be surpassed by any wood in the world for match making and is superior to the poplar wood of which Swedish matches are manufactured."\textsuperscript{104} Considering that Simul trees grew extensively in the forests of Assam besides several other varieties of wood suitable for matches,\textsuperscript{105} the prospects of the success of match factories in the region were very bright. Goalpara, Lakhimpur and Kamrup, with their vast timber resources and easy access to the communication network, could have been considered for possible sites.

\textbf{Paper Mills}

The indigenous paper which was made mainly from the bark of the Sachi tree, had soon been replaced by

\textsuperscript{102} See Chapter VI.

\textsuperscript{103} Gupta, Op.cit., p 89.

\textsuperscript{104} ibid.

\textsuperscript{105} A.S.R., Forests, File No.57/95 of 1873.
imported paper. Gradually its use had been confined to the Priestly class, the astrologers and horoscope makers and was on the path of decline.

Taking into consideration once again the immense forest resources of Assam, the economic viability of a paper mill in the region could not be doubted. R.W. Sindalls' report on the "manufacture of Paper and Paper Pulp in Burma"\textsuperscript{106}, states that it would take 2½ tons of bamboo to make one ton of paper pulp, the cost of which was around £ 1-1s. A ton of unbleached bamboo pulp could be produced for £ 5-10s, which would cost £ 7-10s delivered in London and where it would fetch more than £ 9 per ton. The prospects of an export trade in unbleached bamboo pulp for paper making thus appeared to be excellent.

More favourable, however, were the circumstances for opening of a paper mill in Assam. In 1898-99, almost 10,000 maunds of paper and pasteboards were imported into the province.\textsuperscript{107} The demand for paper was evidently large and was likely to grow. Moreover, there was an abundance of raw material available for the manufacture of paper. The Conservator of Forests, Assam, felt that with regard to the supply of soft wood, Assam was similarly placed as Burma.\textsuperscript{108} In addition, she possessed large quantities of wild plantains, the fibre of which could be suitably


\textsuperscript{107} Rail and River Borne Trade of Assam, 1899.

\textsuperscript{108} W. Schlich \textit{Report on the Forest Operations of Assam}. 
utilised for the manufacture of paper. Suitable sites for a mill could be found close to the forests in the vicinity of a river and having access to the railway network. However, for the enterprise to be successful, it would be essential to employ up-to-date machinery so that the locally made paper could compete with the paper of foreign mills.

A new industry in connection with the betel-nut tree had sprung up in some parts of India towards the close of the nineteenth century. The Inner skins of the sheaf covering the nut branches were being exported to Burma for the manufacture of cigarette wrappers. Taking into account the fact that Assam had an abundance of betel-nut trees, it was obvious that a flourishing trade could be developed by supplying the demand for the cigarette wrappers which was bound to increase every year.

Rice Mills

Assam was essentially an agricultural region and paddy was its staple crop. Hence the value of rice produced in Assam exceeded the value of all the other agricultural products except tea. The irony of the situation was that, although primarily a rice consuming area, much of the rice was exported with the husk and imported in the "manufactured" form. In 1900-1901 unhusked rice worth Rs.31,36,000 was exported from Assam

and husked rice worth Rs.38,41,000 imported into the province.111

The indigenous method of rice preparation in which the pounder (dheki) or the mortar and pestle (ural) were used, was a fairly crude, tedious and time consuming method. The working time required by a person to prepare a maund of rice was approximately twenty one hours. As such, the cost of preparation was around 7 annas per maund as against the estimated preparation cost of 3 annas per maund if husked in a mill.112 The setting up of rice mills in the province, therefore, promised to be a commercially viable proposition.

Chemical Factories

There were no industries in Assam connected with chemicals and alkalies. In 1906-07 almost one lakh maunds of chemicals and drugs were imported into the province.113 As mentioned earlier, a market for chemical fertilisers and insecticides already existed.114 The manufacture of various articles of ordinary use from rubber and celluloid, paints, perfumery etc. could also have been introduced as many of the smaller industries required only moderate capital investment to start with. The official report on the industrial resources of Assam for 1908, commented that it was most surprising that in

113 ibid, p 93.
114 See Chapter VI.
spite of the vast herds of cattle and extensive pasture lands in Assam, no efforts were made to establish a dairy farm in the province on a sufficiently large scale.\textsuperscript{115} The only three dairies of the province were small units set up at Shillong and which used English machines. The demand for dairy products was considerable as can be seen from the fact that in 1898-99 almost 27,000 maunds of dairy products were imported into the province.\textsuperscript{116} Howman, a dairy expert was of the opinion that besides home consumption, buffalo-milk cheese which was largely in demand in the West, could be exported from Assam in considerable quantities\textsuperscript{117} if dairies were set up on a large scale.

**Fisheries**

Fishing was an important occupation of the Assamese people but no community lived by fishing alone. Even the Doms and the Nadiyals, whose original caste occupation was fishing, resorted to other works to supplement their livelihood. When the British annexed the province, a poll tax was levied upon all fishermen but soon this was abolished and fisheries were leased out to the highest bidder.\textsuperscript{118} The profits of the capitalists who took lease of the large fisheries varied according to the quantity of fish caught, but it was considered a profitable business. He supplied the boats and nets to the

\begin{itemize}
  \item \textsuperscript{115} Gupta, Op.cit., p 95.
  \item \textsuperscript{116} W.W. Hunter, A Statistical Account of Assam, Vol.I, p 298.
  \item \textsuperscript{117} Gupta, Op.cit., p 96.
  \item \textsuperscript{118} W.W. Hunter, A Statistical Account of Assam, Vol.I, p 298.
\end{itemize}
fishermen whose labour he employed. The Government, on its part, was satisfied with the revenue that it received.\(^{119}\) Rivers and streams were sometimes poisoned for the purpose of catching fish, the poison used being obtained from barks of certain trees not considered injurious to man.\(^{120}\) This practice was later prohibited. The fishing industry in Assam had considerable scope for expansion. Fisheries constructed scientifically and placed under expert superintendence could be a profitable proposition. The production, after meeting the local requirement, could be exported. The industry could also be diversified to include the preparation of dried fish and fish manure, both of which were assured of a ready market.

**Miscellaneous Industries**

Certain small industries which did not require a heavy outlay of capital but at the same time promised to be profitable concerns, were fruit canning and bottling of squashes, the manufacture of various articles like ink, envelopes, soap and the setting up of poultry farms. In the absence of local industries, these products had to be imported from outside the state. Therefore, even if these industries were set up on a small scale, the local demand itself would ensure their profitable operation.

From the above review it is clear that Assam possessed tremendous and varied economic potential that could have been effectively harnessed and profitably

\(^{119}\) In 1870 the annual revenue from fisheries in the Brahmaputra Valley amounted to almost £3,500 \textit{ibid}, pp 20, 106, 230, 298.

\(^{120}\) \textit{ibid}, p 20.
utilised. In the given situation, what was essential was the will of the authorities to develop them into industries. This unfortunately was lacking.

DRAIN OF WEALTH

The pattern of industrial growth in Assam in the nineteenth century reflected the general phenomenon prevailing throughout the country during that period. The development occurred only in pockets, groomed to satisfy the requirements of British economy. Even the official trade report for 1907-08 commented that as far as industrial progress was concerned, this province was perhaps one of the least advanced.121 With the exception of the factories for the manufacture of tea and the oil and coal mines in and around Digboi, there were no industries worth mentioning in the province. In fact even in 1899 there were only eleven factories in the entire Brahmaputra Valley, most of which were saw mills.122 The exports of the province were also in the form of raw materials which accounted for almost 64% of its total trade in 1900-01.123 There were no industrial centres like Bombay, Calcutta or Kanpur. The majority of the people lived in rural areas and even the census of 1901 recorded only 2% of the population as dwelling in urban areas.124 This is all the more ironical

121 Gupta, op.cit., p 102.
122 Home Department, judicial A, Nov.1899 Progs. 127-46.
considering the richness of Assam's economic resources and her tremendous potential for industrial development. This potential, however, largely remained untapped.

In the little industrial growth that took place in Assam, indigenous enterprise and capital were conspicuous by their absence. Several factors contributed to the emergence of this situation. One of the primary causes was the drain of wealth from the province. It has already been mentioned that from ancient times the people of Assam had enjoyed a self-sufficient village economy. The domestic economy had been based largely on barter and money had played a significantly minor role as a medium of exchange. The savings of the well-to-do people had been in the nature of gold and silver ornaments. In the days immediately preceding the British annexation of Assam the province had gone through a dark period of revolts and foreign invasions involving wanton destruction and looting. Much of what had been saved in gold was lost. British occupation had no doubt brought peace and security but not prosperity. The basic motive behind the annexation of Assam had been to serve the interest of British industry and commerce. Hence, the industrial growth of Assam was made subservient to British industrial growth.

With the coming of the British, the entire economic structure of Assam had undergone a change. The earlier khel system which had involved payment mainly in the

125 See Chapter II for details.
form of labour, did not foster a money economy. Once the British took over, a poll tax of Rs.3 per paik was at first imposed in lieu of personal service. This was soon abandoned in favour of a regular assessment of land revenue based on actual measurement. As a result, the land revenue of the Brahmaputra Valley amounted to Rs.6,14,322 in 1842. Ten years later it had risen to Rs.7,43,689. It is important to note here that the Government's major source of income was land revenue. The introduction of a plantation economy had serious consequences on the agrarian structure. The changeover from the traditional economy to commercialisation was very sudden and within three decades of its inception, the land under tea cultivation far outstripped the area under other crops in many districts. This, however, did not imply that the planters contributed the major share of the revenue. In fact the situation was just the reverse. Much of the land that they occupied was held at minimal cost, as a result of which the burden of taxation fell on the ryots. The people needed money to buy the bare essentials like salt and clothes. Far from having a surplus, they had to resort to borrowing money from the moneylenders at exhorbitant rates of interest or sell a portion of their land to meet their obligations. Even as early as 1830, David Scott, while referring to the poor state of commerce in Assam and want of currency, had suggested the production of more costly articles of export like opium and raw silks. This

127 ibid, p 347.
129 See Chapter-III for details.
130 F.P.P., May 1830, No.51.
extraction of high land revenue constituted the first instance of drain. While commenting on this, Amalendu Guha has written that the drain occurred in several ways. First, the khel system was replaced by a proprietary system involving cash payment. Secondly, the mint of the Assam Rajas was put out of operation and the revenue collected in local currency was annually remitted to Calcutta for recoinage. Moreover, the surplus of Assam's export over imports did not bring any influx of currency as the exported goods were generally bartered for salt.\footnote{Amalendu Guha, "Colonisation of Assam: Years of transitional crisis, 1825-1840", The Indian Economic and Social History Review, Vol.V, No.7, June 1968, pp 129-33.}

Thus there was an absolute dearth of accumulated capital or current savings among the local people. In fact, the British policy of deindustrialisation had itself aggravated the process of drain by depriving the local craftsmen and artisans of their livelihood. Since capital accumulates capital and industrial growth is largely dependent on capital, the Assamese could not embark upon new industrial ventures so long as their capital was being depleted by the drain.

In the absence of indigenous competition, foreign capitalists monopolised and reaped all the advantages of Assam's material resources. However, foreign capital did not initiate progress and development, but led to exploitation and despoilation instead. The establishment of the tea, coal and oil industries contributed little to the growth and development of local economy. On the
other hand, they represented a tremendous drain of wealth in the form of profits. This deprived the province of the secondary benefits of capital reinvestment as well. No doubt, part of the money was paid as wages, but it must be remembered that a major share of the salaries was paid to the foreigners which was naturally drained out of the country. This, together with the huge dividends paid to the shareholders, amounted to a unilateral transfer of wealth. To elucidate the point an example is cited below:

STATISTICS OF THE ASSAM COMPANY AND JOREHAUT TEA CO.¹³²

<table>
<thead>
<tr>
<th>Year</th>
<th>Profit</th>
<th>Dividends</th>
<th>Year</th>
<th>Profit</th>
<th>Dividends</th>
</tr>
</thead>
<tbody>
<tr>
<td>1864</td>
<td>32,324</td>
<td>20%</td>
<td>1864</td>
<td>20,246</td>
<td>34%</td>
</tr>
<tr>
<td>1874</td>
<td>45,026</td>
<td>22½%</td>
<td>1874</td>
<td>18,573</td>
<td>22%</td>
</tr>
<tr>
<td>1884</td>
<td>25,526</td>
<td>14%</td>
<td>1884</td>
<td>17,382</td>
<td>15%</td>
</tr>
<tr>
<td>1894</td>
<td>48,339</td>
<td>20%</td>
<td>1894</td>
<td>26,302</td>
<td>20%</td>
</tr>
</tbody>
</table>

The foreign enterprises and capitalists which flourished, scrupulously avoided any product that would even indirectly have adverse effect on the import of British manufactures. Therefore, many industries which


Tabulated from information in the above.
uld have been locally developed were deliberately avoided. The variety of goods imported covered a wide area from mats and matches, mill work and machinery to goods, books, shoes, toys and even needles. This surely shows how serious the collapse was.

At the initial stage of starting modern industries, the role of entrepreneurship is very important. He has to introduce new commodities and techniques, explore markets and take risks. He has even to find sources of capital for investment. The economy of Assam had been traditionally based on agriculture and supplemented by village handicrafts. As such, the people were not exposed to any industrial environment and were not even familiar with the kind of development that had taken place in the rest of the country. The Western education was introduced long after British occupation and that, too, very slowly. The scope for technical education was completely absent. As a result there was no educated middle class exposed to modern industrial organisation and thinking from which entrepreneurs could emerge. This, together with the inadequacy of capital, was responsible for the absence of indigenous enterprise.

The transfer of money from Assam was only one aspect of the drain. An equally big loss had resulted from the large export of raw materials from the province. A notion widely prevalent in England and encouraged by the official circle in India was that India was never destined to be a great industrial country. Her role as a tropical colony lay in producing raw materials only in order to be utilised by the Western countries possessing superior
Accordingly, British commercial policy in Assam was guided by this general attitude. By 1900-01 the value of exports, the major portion of which was in the form of raw materials amounted to Rs.6,34,65,000 while the value of the imports was Rs.4,03,05,000. This excess of exports over imports could not be regarded as a sign of growing prosperity or a means of adding wealth to the province. The export of raw materials was going up partially to pay for the additional import of manufactured goods. Besides the difference of export over import did not benefit the province as the raw material producers received only a meagre share of the export earnings. The lion's share went to the middlemen and the commercial houses at Calcutta which were either owned by foreigners or non-local people. Therefore, far from adding to the wealth of the province, this export was merely another form of drain.

The British pointed out that the increasing imports reflected the growing purchasing power of the people. The actual position was, however, just the reverse. The imported goods by virtue of their cheapness under conditions of free trade quickly displaced the indigenous goods. Had the raw materials been kept within the province, they could have furnished outlets for indigenous capital and labour. Commenting on the situation Chatterton wrote:

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Industrial India has of late years developed rapidly, as a reference to the trade returns will show; but the work has been due to foreigners and to imported capital, and the profits accruing therefrom, instead of accumulating in the country are remitted abroad. The people of India benefit by the establishment of these prosperous undertakings only to the extent that a certain number can earn wages in subordinate positions or by doing coolie work.... for nearly a century, in industrial matters stagnation has prevailed.

In the early stages, any economy that grows is likely to develop. But there are exceptions, where there is growth without development. This occurs when there is a rapid rise in exported primary commodities owned largely by foreign capitalists. An absence of structural changes to induce complementary growth in other economic sectors and of institutional changes to diffuse gains in the real income among all sections of the population also result in stagnation. This is exactly what happened in Assam. With the rest of India she became a supplier of raw materials and provided a market for British industrial goods. This vicious relation was possible only because of the colonial control of the resources. The Government, by regulations, declared its ownership of forests and minerals. To grant permission or licence to establish an industry was its prerogative. Thus in the dualistic economy of the colonial system, enclaves of prosperity were created amidst a stagnant economy. Agriculture in general remained traditional and the masses continued to be ignorant and poor.

136 Charles B. Kindleberger, Economic Development, p VI.

137 The 'Reserved Forests', 'Elephant Mahals', 'Jungle Mahals' etc., were all royalty-earning property of the Government.