

Infrastructure Economics
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Module – 07
Lecture - 27
Historical Overview of Infrastructure in India

Let me start the Historical Overview of Infrastructure Development in India.

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Brief Outline

- Britain's involvement in Infrastructure Development
- Economic Infrastructure Developed in Colonial India
- Social Infrastructure Developed in Colonial India
- Why Britain Developed Infrastructure in India ?

To begin with, we will first discuss the involvement of Britain in the infrastructure development in India, we will talk this particular discussion in two different sub point as economic infrastructure developed in Colonial India and also as the social infrastructure developed in Colonial India. And then, we will try to discuss that why Britain developed infrastructure in India and how Britain got the advantage of such infrastructure development for the prosperity of Britain.

So, let me begin with the basic assumption that what is basically named as the contribution of Britain's in infrastructure development. So, basic infrastructures like railways, road, post and telegraphs, waterways, etc. were developed during British India. So, many historical, many historians and economist they write that this is one of the contribution of Britain for India. But the fact is that in this presentation we will know that such contributions was not for the development of India, but the very purpose of such contribution in terms of infrastructure development in railways, roads, post,

telegraphs and waterways whatever.

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Britain's Contribution in Infrastructure Development

- Basic infrastructure like railways, Roads , posts and telegraph, waterways etc. were developed during British India

And at the same time, some contribution in the education and health sector was basically for developing the Britain, not to develop India. As we have seen the road build during British regime did not support the modern transportations. Construction of roads, basically it was aimed to mobilize British army and to have the transport of various raw materials to the nearest ports or railways. So, again railways were built to serve the purpose of military and carry out exports of raw materials for British industries.

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Infrastructure Development ...

- Railways aided the commercialization of Indian agriculture which affected severely the self-sufficiency in food grains
- Development of the telegraph was to maintain law and order and smooth functioning of British India
- The postal services were inadequate to serve the people of India
- Huge amount of money was spent on ports development, but they proved to be inefficient

Railway added the commercialization of Indian agriculture, which also affected severely

the self sufficiency in the food grains. At the same time, if we see the development of post and telegraphs which was also aim to maintain the law and order and the smooth functioning of British India. The postal services were adequate to serve the people of India, at the same time huge amount of money was spent on ports development, but they proved to be inefficient for the purpose of the exploitation of resources by Britishers.

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Civil Aviation

- The real progress of civil aviation started in 1920 when the government constructed few aerodromes. The Civil Aviation Department was set up in 1927 and number of flying clubs were founded.
- In 1946 the government set up Airport Licensing Board which gave 11 licenses, created overcrowding in air transport and inflicted heavy losses on the companies

In terms of civil aviation, we find out that the real progress of civil aviation is started in 1920 when the government constructed few aerodromes. The civil aviation department was set up in 1927 and number of flying clubs were founded. By 1946, the government set up airport licensing board which gave 11 licenses and creating overcrowding in air transport and inflicted heavy losses on the companies.

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- The committee recommended integration of all companies into four companies so as to remove cut throat competition and secure scientific and zonal distribution of work.

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Railways



- Lord Dalhousie laid foundation for building a countrywide network of railways and developed modern infrastructure sector.
- Railway was started in India in 1853 with 34 kms
- Railway was the principal mode of transportation for freight and passengers

If you see the history of railway in India lord Dalhousie laid the foundation for building a countrywide network of railways and developed the modern infrastructure sector. Railway was started in 1853 in India with 34 kilometers and it was the principal mode of transportation for freight and passengers. Exploitation of India's coalfields motivated Briton to the development of railways in India.

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- Exploitation of India's coalfields motivated Britain to the development of Railways in India
- In 1855, about 120 miles of railways were constructed from Hooghly to the Raniganj coalfield
- Further development of railways was the high demand for cotton from Deccan and North India
- Railways provided British trade and industry greater access to Indian markets

In 1855, about 120 miles of railways were constructed from Hooghly to Raniganj coalfield. Further development of railways was the high demand for the cotton from Deccan and North India. Railway provided British trade and industry greater access to the Indian markets. Till now we are just finding out that wherever was the raw material, Britishers were trying to have the rail route and the fact was that, the government try to basically take the raw material from those areas and to send them back to the Britain for the production.

As we noticed, that there was a time when India was in the complete control of the Britishers, that was the time when Britain was really having a high degree of industrialization and which was well supported by the raw materials available by India and many other country at that time. So, military requirement compelled Britain to construct and improve roads in India between 1780 and 1840. The objective to improve such road facility was to have much better connectivity between Calcutta and Northern India. As we have noticed that Calcutta was the place, where the East India Company was first time established and the road was constructed in 1781 from Calcutta to Banaras.

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Roads

- Military requirements compelled Britain to construct and improve roads in India between 1780 and 1840
- The objective was to improve connectivity between Calcutta and Northern India
- A road was constructed in 1781 from Calcutta to Banaras
- Followed by reconstruction of the Grand Trunk Road in 1833
- This road was connected to Karnal by the year 1855
- Several military roads were built during 1820 and 1850

We see that there were other development by the Britishers followed by the reconstruction of the grand trunk road in 1833 and again, this way road was well connected to the Karnal by the year 1855. Several military roads were also build up during 1820 to 1850 and this shows that especially in the road sector also the purpose of such development was to really have the satisfaction in terms of military requirement and to have the connectivity with the industrial units, which they have established after the entry in India and they were looking for well connectivity of these infrastructures in a very proper manner.

So, that the maximum exploitation of the raw materials should be done and all these raw materials were used further for the industrialization or the industrial output of the UK for many, many years and India remained one of the major supplier of the raw materials at that time.

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Health Infrastructure in British India

- Madras General Hospital in 1679 was the first hospital in India .
- The Presidency General Hospital, Calcutta was established in 1796.
- Four other hospitals were established in Madras between 1800 to 1820.
- Medical College Hospital, Calcutta was formed in 1852 .
- In 1860, Lahore Medical School (later named King Edward Medical College) started in Lahore, Punjab .

If we see the health infrastructure in British India as a part of social infrastructure, we have seen that in terms of physical infrastructure, there were many other sectors, where we found that Britishers were really involved in a road construction also, they were also involved in the airways and ports development. But, if we see the health infrastructure in British India, it was not really much improved condition, but Madras General hospital in 1671 was the first hospital in India.

And the Presidency General Hospital Calcutta was established in 1796, four other hospitals were established in Madras between 1800 to 1820. Medical College Hospital Calcutta was formed in 1852, in 1860 Lahore Medical School started in Lahore Punjab. So, we find out that health condition in India was really very bad, because it was the first hospital in 1671 which was established in Madras, before that there was no such modern hospital or you can say the proper hospital which India had after some time, after the much for the development of the British rule.

And as we have seen that from 1679 to 1860, there were not much edition of hospitals in India and all these has hospitals were established in the big cities and the urban area also in the industrialized area, where they were having different motivation for the further economic development of Britain.

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Health Infrastructure ...

- A network of hospitals were also set up throughout India. These networks of hospital were well supported by the government in 1854 through the supply of medicines and instruments.
- Government Store Depots were established in Calcutta, Madras, Bombay, Mian Mir, and Rangoon.
- Lady Reading Health School, Delhi was established in 1918.
- The All-India Institute of Hygiene and Public Health was established in Calcutta in 1930.
- In 1939, the first Rural Health Training Center was established in Singur near Calcutta.

A network of hospitals were also set up throughout India, these networks of hospitals were well supported by the government in 1854 through the supply of medicine and instruments. So, government Store Depots were established in Calcutta, Madras, Bombay, Myanmar and Rangoon and we can see here that again big cities or the big towns were having such facilities and the purpose was these Britishers were having base there. And they were having a wide range of purpose and that includes they are purposed to get raw materials and well connectivity from the sea route or well connectivity of raw materials to the Britain.

And so the health facilities which were developed at that time also that was developed to see the further development of Britain, not to really support the Indian population. And we can see here that it was 1918, when the Lady Reading Health School was established in Delhi, the all India Institute of Hygiene and Public Health was established in Calcutta 1930, in 1939 the first Rural Health Training Center was established in Singur near Calcutta.

So, in health sector also we find that lots of hospital and centers were established by Britishers, especially near Calcutta or near Mumbai or near Madras and this fact shows that all these facilities were developed, where they have their sea routes. Because, raw materials were dumped, raw materials were transferred and many people were involving that. So, they were requiring the certain facilities developed especially in those urban areas.

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Vaccination Rate in British India

- In British India, the vaccination rate was 2.7% in 1880 and 1881; that number increased to 3.5% in 1902 and 1903.
- Successful vaccinations at birth were 19.9% in 1880 and 1881 and 39.1% in 1902 and 1903.

If we can see that vaccination rate in British India or in British India or Colonial India the vaccination rate was 2.7 percent in 1880 and 1881, which the number has increased from that level 3.5 percent in 1902 to 1903 and successful vaccination at birth were 19.9 percent in 1880 and 18.8 percent and 13.9 percent in 1902 to 1903 and this shows that from 1880 to 1902 we are finding that there are certain increase in terms of vaccination at the birth.

But, all these statistics show that the condition in India, especially the vaccination condition as a part of the total population has a little bit increase from 1880 to 1902, which has improved from 2.7 percent to 3.5 percent. This shows that much targets were not achieved by Britishers, especially in the field of vaccination rate in Colonial India.

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Education

- Britishers showed no interest in promoting education in India in the first stage of their rule in India.
- Some of the Britishers in personal endeavor and for political gain showed some interest in spreading education.
- The introduction of modern education in India was primarily motivated by political and public-administrative and economic needs of Britain in India.
- Education became the basis of exploiting new economic opportunities which were to a large extent caste-free.

If we see the educational conditions, Britishers showed no interest in promoting education in India in the first stage of their rule in India. Some of the Britishers in personal endeavor and for political gain showed some interest in spreading education. The introduction of modern education in India was basically motivated by the political and public administrative and economic needs of Britain in India and we must notice here the development are spreading the English as a medium of education in India.

And at that time the Britain had try to find out their own administrative mechanism from the Indian public and there were people who were really having inclination to learn English and to go through the English mediums schools and education and that has contributed in the well being of those families which were really having such benefits from the such educations which was named as the modern education by the Britishers, especially at the higher education level.

So, education again become the basis for exploiting the new economic opportunities which were to the large extent the cost free education system. So, in brief we can say that the educational infrastructure which India had at the Colonial time, it was not really up to the mark, because initially they were reluctant to invest in education, like they were reluctant to invest in health as per the need of there are administration as per the need of their political requirement did for that it is better to have certain infrastructure facilities developed in the social sector also.

And because of that is, not because of the need of the public in India, but because of the

need of their own economic well being prosperity modernization and industrialization in Britain they have tried their best to find out different ways to exploit the people in India through the modernization of education in English are through having certain hospitals developed in cities like Mumbai, in Calcutta or in Madras.

So, education become the basis of a exploiting new economic opportunities, which were to the large extent, the model where Britishers start thought that such English education systems, such English medium education will have a different product from the existing educational institutions in India which were completely non English medium at the time. So, especially when we compare the physical infrastructure with the social infrastructure, we found out that whatever investment they were having in the economic infrastructure development in India at that time, such as roads or the ports or the airways or also in the road ways. All those investment were self centered and it was basically enhancing the mercantilist approach of the Britain.

Mercantilism was a condition; it was a trade pattern, where the Britain was having a different type of policy trade policy in which Britain was supposed to export most of the finished goods to many part of the world. But, at the same time Britain was not supposed to allow, Britain was not allowing many countries to have their export to Britain, because they where just trying to have only those imports to Britain which were really helpful for them to have more and more industrialization.

So, some of the study do show that India was more liberalized in the colonial period in terms of trade, but the fact is that economic liberalization trade liberalization was because Britain was supporting India to export the raw material to Britain and in return due to the heavy export to Britain, Britain were also trying to export their finished items to India, because by that time India and Britain where having a proper roots of trade and they were in the position to exploit India is raw material for their industrial purpose.

So, the different movements started by Gandhi in India, it was not because India was not really having the productivity before the British rule, before the colonial rule. The fact is that India was more prosperous before the entry of the Britishers, but due to the exploiting policy of the colonial India. India had no other choice except to not become the partner, but become the matter for exploitation for the Britishers for many years.

So, whatever steps Gandhi and other people have taken, they were taken those steps because just to counter the principle of self sufficiency in India's production that self

sufficiency was destroyed by the British rule in agriculture also in the industrial sector. And India was not in the position to compete with those developed economy, especially to develop economy of UK which were fully dependent on the production through the new machines and techniques, because by 18th century and by 19 century Britain was one of the big industrialized countries which were having a production not through the many, many techniques, but through the most of the modernize techniques.

So, the outcome of infrastructure development, the infrastructure development which is an outcome of the Britain's development, it is not the infrastructure which was developed first. But it was the Britain which were industrialized first and which has try to colonize to have the colony of many other countries, many other economy in the world and to have the concentration on how to really exploit the raw materials, how to really exploit the human resources, how to really exploit the natural resources in different countries to further growth of the economic and industrial development on a very speedy ((Refer Time: 20:58)) stage.

So, Ricardo one of the economist from UK has tried to explain that what was basically the expletive techniques in the discussion on a particular topic called anti corn law and Ricardo was one of the protestant of the UK's policy at that time. So, that policy has continuity in UK for many years and they were not really allowing the corn exporters of other countries to join the UK, they where UK was not allowing many corn producers to send they are products to UK market, because the purpose of the Britishers was to protect their corn producer and Ricardo was one of the person behind such protest and Ricardo has proved that why other countries farmers should not be allow to send they are product to UK.

So, there was a anti call law which exist in UK and that source that how selfish production mechanism and how selfish industrialization and how selfish economic policies Britain has continued for many years, which is named as the mercantilism in economic discussion. So, for varieties of region we find out that we have the evidence of being exploited on varies stage not only in agriculture, but also not only in the natural resources field, but also in case of not alien India's industrialization to continue.

Because, if there will be different restriction on the product in terms of high tariff or in terms of quota, then certainly a country like India would not be moving their trade and that was basically the major approach of Britishers at that time. And we found that

whatever development, whatever physical infrastructure or economic infrastructure was developed by 1930 or 1920 that was well supportive to the Britishers movement of resources from India to UK and it was well proved that how they have exploited and benefited from the natural sources and the raw materials and inputs from the Indian economy.

So, when we say the Britain has contributed or Britain has developed the infrastructure. In fact, I was discussing with one of the old person in my village and he was very much supportive to the Britishers contribution in India infrastructure development and he was saying that whatever development to a finding today in India, it is all because there was a base developed by the Britishers.

But, I was not really convinced with the argument, because the infrastructure development has continued even after the departure of the Britishers and we find out that whatever model we have adopted in India for the infrastructure development after independence, which we are going to discuss in the next lecture in detail. That model has not really developed India in a big way, but at the same time one cannot say that India remain in the same position which India had in 1950.

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Why Britain Developed Infrastructure in India ?

- India was one of the richest countries in the world prior to the British rule.
- India, China and Egypt (and probably many of the kingdoms of central Africa) were economically more prosperous than Britain In 1800.
- That was the main attraction for British to come and exploit the economic opportunities.

So, India was one of the richest country in the world prior to the British rule and India, China and Egypt and probably many of the kingdoms of central Africa, were economically more prosperous than Britain in 1800 year that was the main attraction. British people to come and to exploit the economic opportunities and that has continued

for many years. So, it was not infrastructure development for the growth of India, but it was the infrastructure development for the growth and speedy industrialization of Britain.

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Why Britain ...

- India's export-import ratio was 172.5 percent in 1840-69, 148 percent in 1870-1912, and 133.4 percent in 1913-38.
- This export orientation was a tool of colonial exploitation, and free trade a British device to force its manufactures on India and crush domestic industry.

India's export import ratio was 172.5 percent in 1840 and 148 percent in 1870 to 1912 and 133.4 percent in 1913 to 1938, this export orientation was a tool of colonial exploitation and free trade a British device to force its manufactures on India and crush the domestic industry. So, these statistics are the evidence that how Britain had exploited India's potential for their own benefit, indeed the British had nothing for sell that was of the interest of the India's or Chinese when the British left in 1947 India was poor and industrially backward country, because the objective was to serve the British interest. Historian's estimates that the net transfer of capital transfer from India to Britain average 1.5 percent of the grossness to product in the late 19 century.

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Why Britain ...

- Indeed the British had nothing for sale that was of interest to the Indians or Chinese.
- When the British left in 1947, India was poor and industrially backward. The objective was to serve British interests.
- Historians estimate that the net transfer of capital from India to Britain averaged 1.5 percent of GNP in the late nineteenth century.

So, this entire discussion proves that infrastructure in British India helped Britain in exploiting raw materials for a speedy industrialization of Britain and to again sell the finished products in Indian market.

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To Sum up

- Infrastructure in British India helped Britain in exploiting raw materials for speedy industrialization of Britain and to again sell the finished products in the Indian market.
- Economic as well as social infrastructure (not up to the mark) were well planned attempt to make England rich.

So, the economic as well as social infrastructure, were well planned attempt to make England rich and rich that is basically the final conclusion of this presentation. So, when we say the historical background of the infrastructure development in India, we cannot really ignore the fact that the seeds of infrastructure development were basically planned by the Britishers, in terms of rail, in terms of road, in terms of post and telegram, in terms of ports also in terms of airways.

But, we cannot really say that it was only the Britishers which has helped to India in reaching new opportunities in infrastructure development. Because, that infrastructure development had really damaged the Indian economy, not really improved the Indian economy. So, infrastructure was developed, but we see here that the when the infrastructure is really exploited for the benefit of others, for other economy of the world then that infrastructure is really instead of providing greater opportunities to that local economy that infrastructure becomes the matter of development for other economy.

But, if infrastructure is really developed for generating for own resource, generating our own development, enhancing our own capability of production then in that case that infrastructure is really helping us in reaching the new heights in the economic development. So, the control of economic policy and this is on control of production was not at that time, not was in the hand of Indian citizens, but Britishers were in the position to control the entire decision making in the production and the three questions of the economy what to produce, how to produce and for whom to produce was well defined for the economic interest of the Britishers, not the economic interest of the Indian citizens.

India has a really improved a lot in the infrastructure development after independence, in the next lecture we are going to really cover how India has really improve the development of infrastructure after independence and it is not the Britishers which has only developed infrastructure. But, we have proved that by the public investment and public expenditure a country which were really became a very weak country in terms of industrialization, now we are really having different set of infrastructure which is leading us in becoming world's third largest economy in terms of purchasing power parity.

Thank you.