CHAPTER III

THE LINKAGES: REGIONAL IMPERATIVE

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CHAPTER III

THE LINKAGES: REGIONAL IMPERATIVES

The inter-regional linkages in any historical period are determined by socio-political and economic factors and are manifested by a flow of goods and services, a movement of people, and in a money economy by the circulation of investment, money and credit. The extent and nature of these flows are determined by several factors like the economic base, physical structure of the region, contemporary political conditions and level of technological development.

The economic base of the region determines the volume and nature of the surplus commodities which are available for trade. The socio-political factors determine the inter-regional trade relations because in the event of unfavourable socio-political conditions, trade may not exist even among surplus regions. Regional linkages, to a great extent, are also determined by the physical structure of the region. Physical barriers, such as high mountain ranges, deserts and non-navigable and non-fordable rivers may pose serious problems in movement. The level of transport technology also plays an important role in determining the pattern and volume of trade and communication. The level of technology determines the potency of physical barriers and the extent to which trade can flow. In the present chapter we shall outline these imperatives to interregional
linkages during the early Mughal period in India.

The Chapter has been divided into three sections. In the first section, we have concerned ourselves with the economic, political and social conditions specific to the period under study which determined the regional linkages. The economic parameters which we have considered are the general production base and the trading pattern. Under the political parameters we have considered the level of political stability and inter-regional political relations. Under the social parameters we have considered the level of social integration and cultural synthesis.

In the second section of the chapter we have discussed physical determinants of regional linkages. The main physical determinants of the inter-regional linkages were the mountain passes in the hilly terrains and river fords in the plain regions. While discussing mountain passes, an attempt has been made to locate important pass-routes which were being used in North-west India during the period under study. An attempt has also been made to determine the relative importance of these passes. For this exercise, contemporary sources have been used.

The last section of the chapter deals with the technological determinants of regional linkages. Three main technological determinants have been considered, namely:

- technology of bridge making, types of bridges in use and location of bridges in North-West India,
- the road making techniques of the period, and,
- the means of land and water transport.

3.1 BASES OF THE REGIONAL LINKAGES:

Each region consists of various human settlements which, at any level in the hierarchy, are not static features or a collection of Homo Dormies (inactive men). They comprise of a complex of oscillating and moving particles (the population and its products) with linkages connecting places of supply and demand. Routes establish and maintain these linkages. Thus, the natural function of a route is to connect settlements, and to act as a line of communication between them. In fact, routes perform the arterial function in the body of a region or nation.

It is rather difficult, due to paucity of information, to ascertain the real nature of the linkages between various regions during the early Mughals, but it can be presumed, that some regions were more inter-linked and inter-dependent than others. Closely linked regions had well established routes, with constant flow of traffic over them. There were also regions without any routes of significance. The major routes had been used for various purposes, while less important routes were developed, generally for specific purposes.

In this section, an attempt has been made to analyse the bases for the regional linkages during the period under study. The analysis has been done at two levels. At the
general level we have tried to outline the economic, political and social conditions, which might have provided the bases for the regional linkages. While dealing with the economic bases of regional linkages, the general production base and trading pattern of the period has been discussed. Under the political factors, we have discussed the overall political condition, which must have necessitated close links among the various regions. While discussing the social basis of the regional linkages, an attempt has been made to analyse the possible social changes and compulsions necessitating these contacts.

3.1.1 Economic Bases

The economic base of a region plays an important role in the development of inter-regional links. It has already been mentioned while discussing the cultural regions that areas of attraction or perennial nuclear regions were more suitable for the development of agriculture because of favourable physical conditions. These regions were not only fertile but were linked with one another by well-established lines of communication. Favourable conditions helped the communities living in these areas to produce more than their own need and created some surplus which ultimately led to the development of few industries and allied activities in these regions.

Socio-physical diversities in the various regions led them to produce different commodities in varying quanti-
ties. This uneven production in the surplus and deficit regions was the main force behind the economic links between them. Obviously, economically prosperous regions were more closely linked with one another as compared to economically poor regions which could spare little for trade. Thus, economically poor regions remained in more or less, perfect socio-physical and economic isolation.

In the absence of data for production and population, it is not possible to assess either the surplus and deficit of various commodities in different regions, or the extent of import and export of these commodities. However, an attempt has been made here to indicate the economic base of various regions in order to establish the spatial variations in the production of different commodities of significance, which formed the backbone of inter-regional trade. An attempt has also been made to assess the level of development of manufacturing industries during the period under investigation especially in North-West India, because the trade in industrial products was significant. Finally, the main features of inter-regional trade during the period of the early Moghuls are discussed.

Agriculture: An important feature of the agriculture of the region under consideration was the large number of food and non-food crops raised by the local peasants.¹ There

was a significant regional variation in the cropping pattern so it is better to discuss some of the important crops and their distribution in the region.

Wheat according to Ain, was commonly grown in the Subas of Agra, Allahabad, Oudh, Delhi, Lahore, Multan, Malwa, Ajmer, and Kabul⁵ (in the Sarkars of Kabul and Qandahar). The wheat produced in Kabul and Qandhar were of a special quality. The Kabul wheat was black in colour and small in size. The Qandahar wheat was extremely white and was sent in gift to distant countries as a thing of value. The wheat of Kashmir was also small in grain and black in colour. Very little of it was produced and consumed.³ However, it was in the Punjab plains that wheat was produced in large quantities and was a major food crop of the region.

Rice, as compared to wheat, is a tropical commodity, requiring for its successful cultivation plenty of water and high temperature and so in this region its production was limited only to a few areas. It was grown in the Subas of Lahore,⁴ and Multan⁵ and in the Sarkar of Kashmir. The chief producers of rice were the eastern Subas, while in our region, only in Kashmir, rice was grown in large quantities.⁶ Jahangir refers to rice cultivation of

2 Ain, II, pp. 69-121.
3 Ibid., p. 353; T.J., II, p. 147.
4 Ain, II, p. 119.
5 Ibid., p. 121.
6 Ibid., p. 353; T.J., II, p. 147.
Kashmir in these words, "Rice is the principal crop. Probably there are three parts under rice and one under all other grains. The chief food of the people of Kashmir is rice but it is inferior".7

Millet consisting of cheaper food grains like jowar and bajra were grown on poorer soils and in areas of deficient rainfall and limited irrigation facilities. It was mainly cultivated in the Subasz of Lahore8 and Multan.9

Out of all valuable crops, cotton, and to a lesser degree silk, occupied a singular position in the economy of the period. Cotton requires volcanic soil, and, as such, was mainly produced in the black soil region of Malwa and Peninsular India. Some cotton was however, also grown in the Subasz of Lahore10 and Multan.11 The prices of raw cotton, as given in Ain, show that after Malwa it was cheapest in Multan.

Silk can be produced wherever the summers are warm enough to grow the mulberry plant on which the silk worm feeds. During early Mughals, Bengal including Patna was important centre of the silk industry besides Ahmedabad

7 T.J., II, p. 147.
8 Ain, II, p. 120.
9 Ibid., p. 122.
10 Ibid., p. 119.
11 Ibid., p. 122.
and Kashmir which exported large quantities of silk to other centres. In Kashmir the mulberry leaves were reserved for the silk worm. The eggs were brought from Gilgit and Little Tibet.12

The cultivation of crops yielding dye-stuffs greatly helped in the progress of the textile industry. Apart from the cultivation of indigo, and several other trees such as lac, tun, catechu, bet, were also grown in the various parts of the Empire13 from which colouring material for the dyes were obtained. Among the chief producers of Indigo - the most important were the Subas of Lahore14 and Multan.15 It was also grown in the plain regions of Punjab and after the death of Akbar became an important article of commerce.

Sugarcane, poppy and Oilseeds too were considered amongst the valuable crops, though we have no means at our disposal to identify the land under these crops. Sugarcane was grown in Subas of Lahore16 and Multan17 and was introduced in the Kabul region of Babar. Poppy was grown in Subas of Lahore18 and Multan19 and in Sehwan of the Thatta

12 Ain, II, p. 353.
13 H.K. Naqvi, Urbanisation and Urban Centres under the Great Mughals, Simla, 1972, p. 40.
14 Ain, II, p. 120.
15 Ibid., p. 122.
16 Ibid., p. 119.
17 Ibid., p. 122.
18 Ibid., p. 119.
19 Ibid., p. 121.
region. Saffron, used for colouring cloth and inflowing dishes, was only produced in Kashmir. It was in great demand throughout the countries.

Horticulture: Babar loved gardens and fruit and considered them as some of the greatest gifts of the creator. This led him to pay much attention to them. Abul Fazl, refers to the development of horticulture in these words: "The horticulturists of Iran and Turan, have, therefore, settled here, and the cultivation of trees is in a flourishing state. Melons and grapes have become very plentiful and excellent; and water melons, peaches, almonds, pistachios, pomegranates etc. are everywhere to be found".

North-west India was extremely rich in horticulture. After the conquest of Kabul, Candahar and Kashmir, loads of fruit were imported, throughout the whole year and the stores of the dealers remained full and the bazars well supplied. Infact, the whole mountainous North-West India was very rich in different kind of fruit. Kabul and Kashmir regions were specially supplying fruit in large quantities to other regions. Babar-Nama, Ain and Tuzuk-i-Jahangiri are full of references to fruit of Kabul, Ghazni, Kashmir and the Swad region.

Mineral Resources: A mention should be made here of the mineral resources of the Empire since they were an important

20 Ain, II, p. 358; T.J., II, pp. 177-78.
21 Ain, I, p. 68.
22 Ibid.
part of long distance trade. Gold and silver, the principal medium of currency were not mined at all in the region. The first reference to the development of minerals during the period under study is found in the works of Abul Fazl. There was no gold-mine in North-West India but gold was collected from the sand of various rivers of the Indus system in the mountainous regions. The quantity of the gold, obtained through the tedious process of taking out gold particles from sand by washing it, was, however, not significant. Silver was also being obtained through the same process. There are references to the silver mines of Tuman, Ghorband, Kabul and also of the abandoned mines of Panjsher.

Apart from gold and silver, iron was obtained from the mines of Bangash, Swad and Shah Masud range, north of Qandahar. Copper was mined in Suba of Lahore. Salt was found in Sindh Sagar Doab of Lahore and also on the western side of India, close to Bangash. Salt was also obtained by evaporation from sea water and from the Sambhar lake.

23 H.K. Naqvi, p. 52.
24 I. Habib, Atlas, Sheet 3B.
26 Ibid.
27 Ibid., p. 413.
29 Ain, II, p. 317.
30 Ibid., p. 319.
31 I. Habib, Atlas, Sheet
Woollens: The major part of Indian sub-continent has a tropical climate, where woollens are not much needed. But most of North-West India being hilly and cold required wool for different uses. Thus rearing of sheep and hairy goats was common in Kashmir. In Kabul, large meadows called aulang were set aside as grazing pastures for the sheep. During the reign of Akbar, Kabul was famous as a wool producing region and so was Kashmir. Different varieties of woollens of Kashmir are referred to in various sources as parm-parm, tarmah, darmah, pashmina, pattu and saqarlat. Shawl weaving was in all likelihood common in Kashmir even before Akbar's conquest. Akbar, greatly encouraged the shawl weaving industry of Kashmir. He tried to stimulate the growth of a market for these in Hindustan. Jahangir, however, appreciated the woollens of Tibet. According to him "with the exception of shawls, they make other woollen materials better in Tibet, though they bring the wool for the shawls from Tibet they do not make them

32 BN, pp. 221-22.
33 Ain, I, p. 96; T.J., II, p. 147.
34 T.J., II, p. 147.
36 Naqvi, op.cit., p. 50.
38 Ain, II, p. 356.
39 Ain, I, p. 98.
there. The wool for shawls comes from a goat which is peculiar to Tibet." 40

**Manufacturing Industries:** Assessment of India, as a manufacturing nation in the past, differs widely. According to one view, the industrial sector in pre-colonial days was well developed in India. An unending flow of precious metals poured into the country from all over the civilized world in payment for her fine manufactures. "Western observers from Pliny to Bernier noted with disapproval the region's economic role as the sink for the world's precious metals." 41 Export trade was vigorous while imports were negligible. India was a leading manufacturing nation or at least, at par with pre-industrial Europe. It lost this relative advantage only after Europe achieved a revolution in technology.

This image of high economic achievement has been questioned by others. Gibbon's description of the staples of oriental trade as being 'splendid and trivial' has been held to be true of India's exports as well. 42 Moreover, given the transport technology of the period, the volume of exports, it is pointed out, was bound to be negligible in relation to overall magnitude of economic activity. According to this view, the level of technology of that period in general was rather primitive and almost totally

42 Ibid.
stagnant. Hence, by inference, productivity was low and equally stagnant. Thus, there was a low level of performance for the economy as a whole and manufactures in particular. So, it was not comparable with the buoyant and technologically advanced economy of Europe in the age of Renaissance and Reformation.

The evidence necessary for a definitive assessment of such contending views is lacking. However, it is certain that the second point of view is too critical of the economic achievement of India during the medieval period. Traders and travellers from Europe, who visited India during the period of the Great Mughals, were generally much impressed by the richness and grandeur of the King and nobility and by the prosperity of certain regions and the major towns of the country. The masses were of course very poor, but, in that case in the 17th century, a quarter of the population of England was permanently in a state of poverty and under-employment, if not of total unemployment.43

India was a pre-eminent exporter of manufactured goods, though her technology was remarkably backward in comparison with other advanced civilizations of the period, especially China and Western Europe.44 The world famous textiles of India were produced without the aid of multi spindle wheels used in China from at least the early 14th

43 C. Wilson, England's Apprenticeship, 1603-1763, p. 231.
century. There was also nothing in India to compare with the Italian silk industry which had water-powered throwing mills with 200 spindles. The massive Mughal movements were constructed without the use of even such elementary aids to human labour as the wheel-barrow. The uses of coal and cast-iron technology were not known to the Indians. They were also unfamiliar with the techniques of deep mining. Chemical industry was, at best, primitive. In fact, the extreme simplicity of instruments and a general indifference to labour-saving devices were perhaps the most characteristic features of India's manufacturing techniques.

In certain lines of production, a measure of sophistication had been achieved despite the dominant non-mechanical bias and the basic simplicity of Indian technology.\textsuperscript{45} The technology in India's most developed manufacturing sector, textiles, was no doubt surprisingly simple. Yet, expectedly, in some techniques such as the application of dye resists to confine colours to patterns, it was superior to its European counterpart.\textsuperscript{46} European observers never ceased to marvel at the matchless ingenuity of the Indian artists, who, though destitute of tools, could out-do all the ingenuity of Europe. Manufacturing of jewellery, objects made of steel, muskets, fowling pieces and shipping were also well developed.

There are references to various well developed manufacturing industries of the country, few of which were

\textsuperscript{45} \textit{Ibid.}, p. 292.
\textsuperscript{46} \textit{Ibid.}, p. 293.
located in the North-West India. The most important of the manufacturing industries were the textile industries. Among the textiles, the cotton industry was the most developed. Cotton textiles were produced in almost all parts of the country both for local consumption and distant markets. A bewildering variety of cotton fabrics are mentioned in the contemporary sources and 150 names occur in the first ten years of the English factory records. The export varieties came mainly from four regions, one of them, being the Indus Plain, i.e., Punjab and Sind. 47

The chief cause for the localisation of silk industry was the ancestral skill of the craftsmen. Ain makes reference to the silken carpets and brocades, being extensively encouraged by state patronage. Gujarat remained the main area producing finished silk before the seventeenth century. A small quantity was also produced in Kashmir and Bengal. Few cities like Agra, Lahore, Fatehpur, Patna and Thatta were mentioned by Manucci and Manrique as centres of silk production. 48 There was an element of specialization in silk producing centres. Gujarat was famous for Kamkhabs and silk cloth, Orissa for silk, Lahore for silk thread and Thatta for Jamawars in cotton and silk.

The woollen industry of Kabul and Kashmir has already been mentioned while discussing woollen products. The chief centres of this industry were Kashmir, Kabul, Agra, Agra, Lahore, Fatehpur, Patna and Thatta. 47, p. 270. 48, p. 272.
Lahore, Patna and Rajputana.

The urban industries of India, consisting primarily of handicrafts producing luxury articles for the aristocracy, were mainly centred near the capital towns. These were the best organised industries of the period. The value of their products lay in the artisanal skill rather than in the cost of raw material used. Ain refers to the manufacture of excellent swords, daggers, Jamdhars and Khapwah, bows and arrows in Khandesh. Lahore was famous for chikan, Sialkot (Koh-i-Jud) for dishes and candle-stands, Kashmir for wood work and ivory work and Brampur (Burhanpur) for arms.

Apart from these, there were various other industries located in various parts of North-West India. Metal industries were located in Lahore and Sialkot. The best varieties of paper came from Kashmir owing its origin to the fostering care of the imperial patronage. There were also other cottage industries located in various parts of North-West India.

Trade and Commerce: Most of the population, during the period under study was living in villages and the bulk of their needs for goods and services was satisfied through production for use. Hence, a net work of reciprocal obligations and exchanges accounted for a relatively small proportion of economic activity. But no region seems to be economically self-sufficient as exchange of goods are found at virtually every level and sphere of economic life.
The dominance of subsistence oriented production was modified by surpluses and deficits necessitating multi-tiered and multi-faceted commercial activity.

Our concern in this thesis, though is with the inter-regional trade, yet it will not be out of place to mention some of the salient features of the intra-local and inter-local trade of the period. The inter-local trade, both the country to town and inter-town flow of commodities, was essentially a short-distance version of the inter-regional trade. Infact, intra-local and inter-local trade, in many ways, influenced the inter-regional trade. Important towns of various regions had close commercial ties with the villages and small towns of their hinterland and were also closely linked with the major towns of the other regions.

The village markets or the periodic hats were an important feature of the intra-local trade of the period. Most of the major towns had several markets or bazars and their intra-local trade was necessarily more complex and varied. The bulk of the urban commerce was inter-local rather than intra-local for the commodities on sale in the urban markets were mostly the products of areas near or far. The villages around towns or parganahs were not only administratively dependent on the latter, but also had close economic ties with them. The collection of revenue in cash generated a pressure to sell. The towns providing the necessary demand were in their turn, dependent on the villages for the supply of not only primary products but
most of the manufactured goods they consumed. The urban markets not only catered for the needs of local consumers, wholesalers and retailers but also acted as emporia and entepots whence dealers from other places secured their supplies.

A striking feature of the inter-local trade was the extreme responsiveness of food supply to market demand. The food supply, in all major urban centres was abundant, a large part of which necessarily came from outside. Different types of producers goods featured prominently in the inter-local exchange of commodities.

The inter-regional trade, during the period under study was not, as generally assumed, predominantly an exchange of highly priced luxury products. The trade in food-stuff and in a wide range of textile products, some of which were certainly not luxury items, were, despite high transport costs, the most important components of inter-regional trade of the period. The trade in food-grains indicates the existence of surplus and deficit regions and contradicts theories which postulate a uniform pattern of self-sufficiency for the entire sub-continent. Whether the inter-regional flow of foodgrains was meant for the rural consumers is not known.

The volume of trade in foodstuffs cannot be assessed in the absence of appropriate data, however a few sources provide some indication of its magnitude. Manrique mentions that over a hundred vessels were, "yearly loaded up
in the ports of Bengal with only rice, sugar fats, oil, wax" etc. The trade of food-stuff was mainly done by the Banjaras over land on pack oxen. They had in their larger camps 12,000 to 20,000 bullocks capable of carrying 1,600 to 2,700 tons. Besides catering to the need of the regular annual movement of goods, they used to supply the imperial army during the Campaigns.

The trade of textile was also quite common. It was noted by the European traders that purchases were quite insignificant to the total volume of trade in textiles. The bulk of textiles were being bought up by Indian and other Asian merchants for other regions of India. Different varieties of cotton textile were being produced in various regions and evidence clearly indicates that none of these was exclusively meant for local consumption or the foreign market.

It is possible that the trade in cotton textile was confined mainly to luxury and comfort goods. But inter-regional exchange of certain intermediate goods and raw material suggests a more basic pattern of interdependence. The silk industry of Gujarat, for instance, was entirely dependent on the import of raw silk from Bengal. According to Roe, Bengal silk was available more cheaply at Agra than in Bengal.49 If true, it would perhaps be due to the fact that the Bengal trade was controlled by the traders from north India, so that any procurement of silk against

49 Ibid., p. 332.
this stiff competition was rendered difficult.\textsuperscript{50} From Agra 20,000-30,000 bundles were sent every year to Persia and Turkey.\textsuperscript{51} The dye-stuff, indigo and chay roots, were produced only in certain regions, but were essential for the textile industry everywhere.

Apart from the trade of mineral products, a variety of miscellaneous items entered into the inter-regional trade of the period. Some of the important trade items were spices, opium, tobacco etc. Prominent in the luxury trade of the period were the products of Kashmir like, shawls, palanquins, bedsteads, trunks, boxes and saffron.

Unfortunately, no evidence is yet available on the volume of the inter-regional trade and commerce at any point of time. Only some idea of the magnitude of the trade can be obtained from individual items such as, quantity of salt imported into Bengal, the export of raw silk from Kasimbazar to Gujarat or the number of pack oxen used by the Banjaras to transport grain. There was in all probability, an upward trend in the volume of trade during the period of Akbar and Jahangir, although there is no direct reference to prove it. The volume of trade must have increased due to the increase in population\textsuperscript{52} and political stability in

\begin{itemize}
\item \textsuperscript{50} \textit{Ibid.}
\item \textsuperscript{51} \textit{Ibid.}
\item \textsuperscript{52} The likely increase in population would suggest an increased demand of foodgrain and other foodstuffs unless the increase was concentrated in the food exporting areas.
\end{itemize}
the country\(^5\) and also due to the efforts made by Sher Shah, Akbar and Jahangir to make trading safe and comfortable.

3.1.2 **Political Bases**

Political factors play an important role in structuring the interaction pattern between peoples and regions. Political factors have also determined the temporal ambitions and the plans of conquest of Kings. Socio-economic interaction between regions is also contingent upon political conditions which should be amenable. If political circumstances do not warrant it trade may not exist even among surplus regions. Political stability and cordiality in political relations hence are a pre-requisite for the development of inter-regional linkages.

In this section, an attempt has been made to understand the significant political developments of the period under study. The period of early Mughals was one of the most eventful and crucial periods in the annals of Indian history. During this period, perhaps one of the strongest and most stable empire was established in India. The alien Mughals under Akbar and Jahangir became Indian in character. The local nobles and rulers, particularly the Rajputs, were inducted in administration and policy making and were given the highest possible status. In the following pages we

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53 With the establishment and consolidation of the Mughal Empire, there was significant economic development followed by trade of various commodities. There are references to prove that various luxury items were procured by Kings and nobles from various countries.
attempt to highlight those political events which directly or indirectly influenced the inter-regional linkages in North-West India.

Babar's Conquests of Kabul and Qandahar: Babar succeeded his father, Umar Sheikh, to the throne of a small state, Farghana in June 1495 at the young age of 12 years. A very turbulent period followed for him. He had to conquer the city of Samarqand twice from his uncle only to lose it soon after. The second time the Uzbek chief, Shaibani Khan, was called in by his uncle to help oust Babar. Shaibani defeated Babar and conquered not only Samarqand but also the rest of the Timurid Kingdoms in the area. This forced Babar to move towards Kabul, which he conquered in October 1504. Babar then, for 14 years tried to regain his homeland from the Uzbeks. He tried to enlist the help of his uncle, the ruler of Herat, in the enterprise without any success. Ultimately Herat too was conquered by Shaibani Khan, but this resulted in a direct conflict between the Uzbeks and the Safarids as the latter also laid claims to the Herat region, known at that time as Khurasan.

In the famous battle at Merv, in 1510, Shah Ismail of Iran defeated and killed Shaibani Khan. Babar once again, this time with the help of Iranian forces, recaptured Samarqand but was later treated by them as the governor of

54 BN, p. 1n.
55 Ibid., p. 199.
an Iranian province rather than as an independent prince. He was subsequently ousted once again from Samarqand and had to return to Kabul. Ultimately, Shah Ismail himself was defeated in a battle of Ottoman Sultan, thus leaving the Uzbecks as the masters of Trans-Oxiana. These political developments in Central and West Asia forced Babar to look towards India.

Factors Leading to Babar's Conquest of Hindustan: Babar was interested in the conquest of Hindustan from the time of his occupancy of power in Kabul in 1504, as he mentions, "Ever since we came into Kabul it had been in my mind to move on Hindustan". He started for Hindustan for the first time in 1505 but abandoned the campaign, without crossing the Indus. He crossed the river for the first time during his third campaign to Hindustan in 1519. Babar conquered Bhira-Khushab temporarily, on which he felt he had a legitimate right as they were conquered by Timur and remained in possession of his successors till 1504. Next year Babar again conquered Bhira and pushed on as far as Sialkot and Sayyidpur (Aminabad). He might have pushed further on, but the news of the raid of Shah Beg Arghun of Qandahar compelled him to retrace his steps. Tripathi rightly notes that the early expeditions of Babar were of a reconnoitering character. He must have found out that

56 BN, p. 377.
57 According to Babar "Timur Beg had gone into Hindustan; viz. Bhira, Khush-āb, Chinab and Chiniut, had been held by his descendents and the dependents and adherants of those descendents", BN, p. 382.
the road to the Punjab was clear after the Indus was crossed, that the Afghans were either incapable of resistance, or for some reason, were anxious to avoid a serious clash with him, and that Qandahar must be conquered before any extensive operation in India could be undertaken.\textsuperscript{58}

There were some economic compulsions, which forced Babar to attack Bhira and other Parganas of Punjab and then to conquer Hindustan. Babar very often mentions the pressing needs of money and provision for the army. Before attacking Bhira in 1519 he again explicitly mentions that "Nothing to count had fallen into the soldiers' hands during the three or four months we had been leading this army. Now that Bhira, the border land of Hindustan, was so near, I thought something might fall into our men's hands if, riding light, we went suddenly into it."\textsuperscript{59}

It is quite obvious, that Babar who was ruling over hilly regions, with a meagre surplus and income was unable to feed a large army which he had to keep due to the pressing danger of Uzbecks and the Shah of Iran. Abul Fazl also realised this need of Babar as he mentions that "He ruled over Badakhshan, Qandahar and Kabul which did not yield sufficient income for the requirements of the army. In fact, in some of the border territories the expense of controlling the armies and administration was greater than the income." With the meagre resources of the regions

\textsuperscript{58} R.P. Tripathi, \textit{Rise and Fall of the Mughal Empire}, Allahabad, 1963, pp. 25-6.

\textsuperscript{59} BN, p. 378.
which were in Bahar's possession, it was not possible to provide well for his nobles and Kinsmen.

Another factor which prompted Babar to move towards India was the fact that though he was able to consolidate his power in Kabul and Qandahar considerably, he was always under the constant threat of attack from the Uzbecks and considered India to be a good place of refuge and a suitable base for operations against the Uzbeks. Moreover, the political situation in Hindustan was suitable for Babar's entry. Ibrahim Lodi had succeeded Sikandar Lodi in 1517 and had tried to establish a large centralised empire which alarmed the Rajputs and Afghan chiefs. Daulat Khan Lodi, the governor of the Punjab, was almost an independent ruler and wanted to strengthen his position by annexing the frontier tracts of Bhira etc. This created some tension between Babar and Daulat Khan. However, the policy of Daulat Khan was to avoid a conflict both with Babar and Ibrahim Lodi. Ibrahim Lodi was also not too keen on precipitating a conflict with Daulat Khan as his attention was for the moment rivetted on consolidating his power and keeping his energies reserved. It was around 1524 that Babar was invited by Daulat Khan Lodi and Alam Khan Lodi to invade India. Babar conquered India by defeating Ibrahim Lodi at Panipat in April 1526, and then defeating Rana Sanga at Khanwa in 1527. This was a long step towards the establishment of an Indian empire.

The influence of Babar on the history of India was
enormous. He not only changed the entire political situation of northern India, but also linked India once again directly with central and west Asia. For the first time since the downfall of the Kushans, Kabul and Qandahar became integral parts of India. Throughout the early Turkish period the frontiers of India remained very vulnerable, for the conqueror of Kabul was always tempted to cross the Indus and at least threaten the province of the Punjab. Kabul and Qandahar had always acted as staging places for an invasion of India. Dominating them, Babar and his successors were able to give to India security from external invasions for almost 200 years. Economically also, the control of these two regions strengthened India's foreign trade since these two towns were the starting points for caravans meant for China and the Mediterranean sea ports.

**Humayun:** Humayun who succeeded Babar in 1530, was left to take care of a vast empire which extended from the river Amu to Bihar. Kunduz, Badakhshan, Kabul, Ghazni and Qandahar were his western possessions, while the Indo-Gangetic plains upto Bihar, formed parts of his empire. Biyana, Ranthambore, Gwalior, Alwar and Chanderi formed the irregular boundary-line between the empire and the Kingdoms of Rajputana and Malwa. He had also inherited many of Babar's problems. The administration had not yet

60 R.P. Tripathi, *op.cit.*, p. 60.
been consolidated and the financial condition was unsound. The Afghans were still strong and hoping to expel the Mughals from India. Moreover, the old Turko-Moghol custom of partitioning the empire among all the brothers had to be followed. Babar, however, was against it and had advised Humayun not to partition the infant Mughal empire but to treat his brothers with generosity. Partition of the empire, he thought, would be dangerous and disastrous.

Theoretically Humayun was the successor of Babar to the Imperial throne and enjoyed undivided sovereignty. However, the empire was already divided up. Kamran had already got Kabul and Badkhshan; Askari, who was fifteen, received the province of Sambhal; and, Alwar fell to the share of Hindal, a boy of thirteen. With this arrangement, however, Kamran was not satisfied as he found that the regions given to him had very limited resources as compared to the Indo-Gangetic plains, possessed by Humayun. Kamran marched on Lahore and Multan and occupied them. Humayun was not interested in a civil war, as he was busy elsewhere and had little option but to agree. Kamran accepted the suzerainty of Humayun and promised to help him. In a way, this arrangement suited Humayun, at least for the time being, because after granting Lahore and Multan to Kamran, he was free to devote his attention to the eastern parts of his empire without having to bother

61 Ibid., p. 67.
62 Ibid., p. 68.
about his western frontiers.

Humayun was faced with problems from two fronts; on the east the power of Afghans was growing rapidly. Bahadur Shah, the ruler of Gujarat had consolidated his position by conquering Malwa and invading Chittor again and again. Humayun, destroyed for ever the threat posed to the Mughals by Bahadur Shah. But during his absence from Agra for two years (February 1535 to February 1537), Sher Khan, the Afghan noble, had further strengthened his position and had become master of Bihar. He also compelled the Bengal King to pay an indemnity of 1,300,000 dinars (gold coins).

Humayun defeated Afghan at the fort of Chunar but in the mean time Sher Khan captured fort of Rohtasgarh and Gaur, the capital of Bengal. After these conquest, Sher Khan made an offer to Hunayun that he would surrender Bihar if he was allowed to retain Bengal. But obviously Humayun was not prepared to leave Bengal as it was the land of gold; rich in manufactures, and a centre of foreign trade. Humayun had, thus, to undertake the campaign, which was purposeless and was a prelude to the disaster which overtook his army at Chausa, almost a year later (March 1539).

**Humayun's Loss of Empire:** After the defeat of Chausa, only the united force of Timurid princes and the nobles could have saved the Mughals. But unfortunately due to some misunderstanding and lack of proper judgement the Mughal forces could not unite and Humayun lost bitterly contested battle against Sher Khan at Kanauj in May 1540.
After this war Humayun became a prince without a Kingdom. Kabul and Qandahar remained with Kamran. Humayun wandered for two and a half years in Sind and its neighbouring regions, preparing various schemes to regain his kingdom. But neither, Maldeo, the powerful ruler of Marwar, nor the rulers of Sind were prepared to help him in this enterprise. Worst of all, his own brothers, due to different reasons, turned against him, and tried to have him arrested.

Humayun left Sind for Qandahar via Siwi, but, at Mashtang he was informed that Askari, under Kamran's instructions, was coming to arrest him and was not far from the place. Leaving his belongings and baggage and the infant son, Akbar, to the care of reliable men, Humayun set off his wife and twenty-two loyal followers for Persia by way of Ghazni.63

According to the instruction of the Shah, Humayun was received by the Governor of Seistan and was escorted to the presence of Tahmasp who was at Surliq, the summer capital of Persia (July 1544). Humayun felt humiliated in his heart, but had to keep up appearances.64 However, with the help of 13,000 horses sent by the Shah under the nominal command of Prince Mirad,65 Humayun was able to conquer Qandahar (September 1545). He subsequently conquered Kabul from Kamran (November 1545).

63 Ibid., p. 106.
64 Ibid.
65 Ibid., p. 160.
Sher Shah's Afghan Empire: After defeating Humayun, Sher Shah ascended the throne of Delhi in 1540 and ruled over the mightiest empire which had come into existence in north India since the time of Muhammad Bin Tughlaq. His empire extended from Bengal in the east to the Indus on the west. In the south-west he conquered Malwa and almost the entire Rajasthan.

Sher Shah paid great attention to the development and growth of trade and commerce and improvement of communications in his kingdom. He restored the old imperial road, now known as the Great Trunk Road, from the river Indus (western boundary of the empire) to Sonargaon in Bengal (near the eastern most corner of the empire). During his reign, a road was also built from Agra to Jodhpur and Chittor, evidently linking up with the road to the Gujarat sea ports. He built a third road of importance from Lahore to Multan. Multan was at that time the staging point for caravans going to west and Central Asia. These roads were useful both for commerce and military purposes. Along these roads were sunk wells for the comfort of travellers at a convenient interval of four miles. In these places the state provided the travellers with hot or cold water; beds; food, cooked or uncooked and grain and hay for horses and cattle. Sher Shah is credited with having repaired or constructed about 1,700 caravan-Sarais. They were largely for the convenience of the royal post. 66

Direct steps were also taken to tone up commerce. The merchants and shopkeepers were ordered to maintain uniformity of weights, prices and quality of articles. The state officials were forbidden to buy things at a price lower than that prevailing in the market. Sher Shah also opened free trade between the provinces of his empire. He charged the transit duties only at two places in the empire, i.e., at the place for entrance, which was Sikrigali pass in the east and Rohtasgarh in the west; and, at the place where commodities were sold.

The noble sentiments of patriotism with which Sher Shah had been able to inspire and unite the Afghan nobles dissipated during the reign of Islam Shah. Though there was no loss of territories or strength of empire, but after Sher Shah's death in October 1553, due to the absence of a commanding personality, the pent-up feeling and ambitious of the Afghan nobles were let loose and the whole empire was in no time broken into pieces.

Humayun after setting the affairs of Kabul and considering the army reached the banks of Indus on the last day of 1554. After capturing Lahore and defeating the Afghans at Sirhind, the gates of Delhi once again opened for Humayun on July 20, 1555. He entered the fort of Salimgarh, which had been built around the Din Panah of Humayun.  

67 Ibid., p. 157.
68 Ibid., p. 168.
Akbar: Humayun died a few months after his conquest of Delhi. Akbar, who was then only thirteen years and four months old was crowned at Kalanaur in February 1556. The political climate of his empire at that time was very uncertain. The Afghans who were still strong beyond Agra, were regrouping their forces under the leadership of Hem Raj or Hemu for a final show down. Sikandar Sur, the defeated Afghan ruler, was loitering in the Sivalik hills. Kabul had been attacked and besieged by Sulaiman Mirza. However, Bairam Khan, the tutor of the Prince and loyal and favourite officer of Humayun, rose to the occasion. He became the Vakil of the kingdom, with a title of Khan-i-khanan, and rallied the Mughal forces.

The threat from the side of Hem Raj, the most powerful commander of the Afghan forces, was considered the most serious. He marched through Gwalior and took possession of Agra and also captured Delhi in October 1556. Akbar who was in Punjab with Bairam Khan at that time marched towards Delhi and fought a decisive war against Afghans at Panipat on 5th November 1556. Hem Raj was defeated.

69 Ibid., p. 172.
70 Ibid.
71 Ibid., p. 173.
72 Ibid., p. 174.
73 Ibid., p. 175.
74 Ibid., p. 176.
His defeat sealed the fate of Adil Shah. Shortly after the occupation of Delhi and Agra, Bairam Khan marched along with Akbar to deal with Sikandar, who fortified himself in Mankot. The fort was siezed and for six months Sikandar defied the besiegers. However, when the news of the defeat of the two big Afghan generals and of the death of Adil Shah reached him he lost all hopes of relief and sued for peace. Sikandar was allowed to go to Bihar (May, 1557) where he died after a few years.

The imperial affairs at Kabul also took a favourable turn. After besieging Kabul in vain for several months, Sulaiman Mirza thought it prudent to come to settlement with Munim Khan because the Uzbeks were moving in Central Asia and winter was approaching. Qandahar was surrendered to the Persians by Shah Muhammad, the governor of the place, who was obliged to take that course owing to the rebellion of Bahadur Khan, brother of Ali Quli Khan-i-Zaman.

During the four years of Bairam Khan's regime not only the most formidable dangers were overcome but the Mughal armies showed a very satisfactory progress. From Kabul to Jaunpur and from the northern Punjab hills to

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75 Ibid., p. 177.
76 Ibid.
77 Ibid., p. 178.
78 Ibid.
79 Ibid.
Ajmer, the sovereignty of Akbar was recognized. The Ghakkers were also persuaded to accept the suzerainty of the Mughal Emperor.

While outwardly Bairam Khan's power and prestige were supreme, numerous forces were active in undermining his influence, which was eventually destroyed by 1560. Bairam Khan who became arrogant was unable to realise that Akbar was growing up and was interested in taking the helm of the empire in his own hands. On the pretext of going on a hunting expedition, the Emperor fled away from Agra (March 19th, 1560) to Delhi with some of his most confidential men. From Delhi, Akbar issued farmans suspending Bairam Khan. Those who were unhappy with Bairam Khan rallied at Delhi. Bairam Khan rebelled halfheartedly but later on submitted to the king who received him cordially.

Akbar had freed himself from the control of Bairam Khan not to fall under the influence of any other power. The following sixteen years were far from peaceful and Akbar faced problems practically from every corner of the empire. However, he managed to conquer all those territories, which traditionally were parts of Hindustan. Mughal armies were able to conquer the following regions; Malwa in

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80 Ibid., p. 179.
81 Ibid., p. 180.
82 Ibid., p. 181.
83 Ibid., p. 182.
1561; 84 Merta in 1562; 85 Gondwana in 1564; 86 Chittor in
1568; 87 Ranthambhor in 1568; 88 Kalingar in 1569; 89 Gujarat
in 1573; 90 and Bihar and Bengal between 1574-76. 91 The
Mughal army also won the famous battle of Haldighati against
Rana Pratap in 1576. 92 The Rana retired into the most
interior parts of the hills. 93 The defeat at Haldighat did
not weaken Rana Pratap's resolve to fight on for indepen­
dence. However, the cause for which he stood had already
been lost; most of the Rajput states had accepted the
suzerainty of the Mughals. Akbar succeeded in cementing
his alliance with the Rajput rulers by the policy of
inducting them in the Mughal service and treating them at
par with the Mughal grandees; by according broad religious
toleration to his subjects and by his courteous behaviour
to his former opponents.

In the mean while, Akbar faced some serious problems

84 Ibid., p. 184.
85 Ibid., p. 186.
86 Ibid., p. 192.
87 Ibid., p. 205.
88 Ibid., p. 206.
89 Ibid.
90 Ibid., p. 212.
91 Ibid., pp. 215-18.
92 Ibid., p. 225.
93 Ibid., p. 226.
in Punjab. Mirza Hakim, brother of Akbar, who was driven out of Kabul by an invasion of Sulaiman Mirza of Badakhshan, came to India to seek Akbar's help. Akbar gave orders to the Punjab officers to do their best to help the Mirza in his distress. Meanwhile the Mirza changed his mind. Encouraged by the Uzbek rebellion and instigated by his maternal uncle Faridun, Mirza Hakim invaded the Punjab. Plundering Bhera on his way, he came to besiege Lahore. Akbar marched from Agra to repel his brother on November 17, 1566. He hardly reached the Sutlej when he got the news that Mirza had raised the siege of Lahore and had returned to Kabul. Akbar, however, sent an army up to Indus to hound the Mirza out. He had no intention of taking an offensive against Kabul.95

After many years, in 1580, Akbar faced, perhaps the most serious threat to his empire from Mirza Hakim. This time, political discontent among the nobles was at its peak due to certain socio-religious and economic factors. The new system of administration introduced by Akbar, implied the tightening of the administrative machinery, greater control over the nobles and more concern for the interest of common people. This system was, therefore, not to the liking of many nobles. The most serious rebellion during this period was in Bengal and Bihar which had a long tradi-

94 Ibid., p. 196.
95 Ibid.
tion of forming separate kingdoms. The discontent was fanned by some religious men who were unhappy at Akbar's liberal views. Due to the mishandling of the situation by local officials, Bengal and almost the whole of Bihar passed into the hands of the rebels who proclaimed Mirza Hakim as their ruler. The rebels, even got a religious divine to issue a fatwa, calling in the faithful to take the bield against Akbar.

Akbar was fortunate in that Mirza Hakim's project of invading India was postponed owing to civil war in Badakhshan. When the Kabul army marched upon India the political situation had somewhat eased, though the rebellion in the east was yet far from being brought under control.

It was in December 1580 that the advance of the Kabul troops crossed the Indus and Mirza Hakim advanced on Lahore with 15,000 horses but could not take the city due to the strong defence of Raja Man Singh and Bhagwan Das. His disappointment was great when he found that not a single officer joined him against Akbar.

Akbar was quite prepared to meet an invasion and had collected an army of 50,000 cavalry and 500 elephants besides numerous infantry and artillery. He left the

96 Ibid., p. 263.
97 Ibid., p. 266.
98 Ibid.
99 Ibid., p. 267.
100 Ibid.
capital on 6th February 1581, with probably the largest army that he had ever led in his life. Hakim came to know of the strength of Akbar's army, lost his nerve, hurriedly decamped and fled from India. Akbar received the delightful news of the retreat of Mirza Hakim from Lahore when he was near Sirhind.

Conquest of Kabul: Akbar, however, decided to proceed to the frontier to organise the defences there and to lay the foundation of a strong fort at Attock to act as a bulwark against an invasion from Kabul. Man Singh was ordered to cross the Indus and proceed to Peshawar as Hakim did not reply to Akbar's message suggesting to settle terms. Ultimately, Akbar, against the advise of all the nobles, crossed the Indus. His example had a salutary effect on the nobles, who eventually decided to follow him. In the meanwhile, prince Murad and Man Singh defeated Mirza Hakim at Khurd-Kabul. Nevertheless Akbar pushed on and reached Kabul on August 10, 1581. This was the first time in the history of India when one of her own rulers made entry into Kabul. Mirza Hakim loudly protested his loyalty and sought for forgiveness but refused to appear personally

101 Ibid., p. 269.
102 Ibid., p. 268.
103 Ibid., p. 269.
104 Ibid., p. 270.
105 Ibid.
106 Ibid., pp. 270-71.
before Akbar. The Emperor left the charge of Kabul to his sister Bakhtunnissa Begam. After the return of Akbar from Kabul, Hakim came back to Kabul but ruled in the name of his sister. Mirza Hakim died on July 30, 1585, leaving behind two young princes and a disturbed Kabul. Uzbek power under the leadership of Abdullah Khan had increased significantly and they had conquered Badakhshan in 1584.

On August 24, 1585, Akbar left Fatehpur for the northwest. Many Mughal officers advised the Emperor not to go beyond Rohtas but he pushed on as he was obviously very anxious to maintain the integrity of the empire by closing every possible route to India. On December 20, 1585, expeditions were sent to conquer Kashmir, Swat and Bajaur. An expedition was also sent to Baluchistan. The full control of the Khaibar pass and the submission of Pathan tribes inhabiting the country along the Kabul river were the first requisites for a comprehensive and systematic opposition to the Uzbeks. The debacle of Swat region has already been discussed, when thousands of Mughal soldiers and important nobles, including Raja Birbal were killed. Subsequently, expeditions were sent again and again to crush the power of the Pathan tribes, with some success.

107 Ibid., p. 271.
108 Ibid., p. 294.
109 Ibid.
110 Ibid.
111 AN, III, p. 714.
112 Ibid., p. 716.
at least Khaiber pass route became safe for the travellers.

**Conquest of Kashmir:** Humayun, after his defeat by Sher Khan, was invited to conquer Kashmir but he could not accept the proposal. However, Mirza Haidar Doghlat, the cousin of Babar welcomed the proposal and conquered Kashmir in 1540-41. The death of Mirza Haidar in 1557 once again gave rise to furious struggle between different factors. During Akbar's period the relations of the king with Husain Shah and his brother and successor Ali Shah were not satisfactory. Ali Shah had gone to the extent of proclaiming Akbar sovereign of Kashmir in public prayers. But after the death of Ali Shah, in 1578-79, when his son Yusuf succeeded him, a civil war broke out. Yusuf sought help and protection from the Emperor. In 1580 Akbar dispatched Man Singh for his assistance. But when the Kashmiris sued for peace and requested him to come alone, Yusuf without informing the Mughal officers, slipped off and seated himself on the throne.

In 1585, when Akbar was marching towards the frontier, he sent an order to Yusuf either to come in person or send back his son, Yaqub who had fled from the imperial camp. Yusuf was probably willing to come but his nobles would not

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114 Ibid.
115 Ibid., p. 299.
116 Ibid.
117 Ibid.
allow it, so the attempt became futile. 118 Due to uncertain conditions prevailing in the north-west at that time, Akbar was not interested in leaving Kashmir in a state of doubtful loyalty. 119

In December 1585, Akbar deputed Shahrukh and Bhagwan Das to lead an invasion into Kashmir by way of Pakhli route (Jhelum Gorge). At Buliyan pass, a well contested battle was fought, but with no decisive result. Yusuf himself was not interested in fighting against the Mughal army but he could not convince his nobles. At last he secretly fled from his camp and came over to Bhagwan Das. 120 The Kashmiris placed Yaqub on the throne and came out to fight the Mughal army. Although they defeated Yaqub's forces but they could not afford to stay there any longer as famine and cold grew so threatening that it was difficult to get a meal for an asharfi. 121 This forced the Mughal commander to patch up with Yaqub and come to some treaty. This step was thought unreasonable from the Mughal point of view.

Akbar received this news at the time when the ambassador of his rival, Abdullah Khan of Turan, was staying at the court. 122 Akbar might have felt disgusted and humiliated

118 Ibid.
119 Ibid.
120 Ibid, p. 300.
121 Ibid.
122 Ibid.
to receive the bad news in the presence of the ambassador and so he refused to recognize the treaty which had been imposed upon his officers in the face of hardships. Moreover, Yaqub had thrown to winds the fiction of Akbar's overlordship and in 1588 ordered the Khutba to be read and coin struck in his own name; instead of Akbar's. 123

Finally, Akbar decided to conquer Kashmir and sent Qasim Khan to deal with Yaqub. After some serious fighting, on October 7, 1586, the Mughal troops reached Srinagar and read the Khutba in Akbar's name. 124 But it was only in 1589 that Yaqub was compelled to surrender. 125 The conquest of Kashmir made a great impression on the half subdued Rajas of the Punjab hills. The Rajas of Nagarkot, Jammu, Man, Jeswal and a dozen other chiefs hastened to offer their submission and presents to the Emperor (1590). 126 In 1591 Ali Rai the ruler of Little Tibet also sent presents and gave the hand of his daughter to Salim. 127 The tribal situation in the North-West has already been discussed. It has been noticed that Babar as well as Akbar tried to subdue the tribals of the Kabul Basin. Babar at times did it to get provisions for the army as the regions ruled by him were not generally productive. But Akbar's interest in crushing their forces was mainly to make journeys on the road safe

123 Ibid., p. 301.
124 Ibid.
125 Ibid.
126 Ibid., p. 302.
127 Ibid.
and to keep a watch on all the possible entries to India through the North-West. For this purpose, Akbar sent forces to the tribal regions time and again.

The tribal problem became more acute by the popularity of the Roshaniyya sect among the Pathan tribal groups of the Kabul and Swat regions. Bayazid Ansari, the founder of the sect, was born in 1525 at Jullunder but returned to Kaniguram, his parental home and was brought up there.\footnote{128} Bayazid's faith brought him into conflict with the Sunnis but his fervour and profundity won for him the devotion of a number of Afghan tribes. Bayazid became unpopular in his homeland and so fled to the Mohmands in Ningrahar and thence to the Khalils and Muhammadzais, among whom he made many converts in and around Peshawar and Hashtnagar.\footnote{129}

Bayazid transferred his headquarters to Tirah, where the Afridis, Orakzais, Khalils, Mohmauds and Bangala flocked to his standard.\footnote{130} In Tirah he conceived the idea of mobilizing the tribes to overthrow Akbar's empire and actually issued drafts of the treasury of Hakim, the feudalroy in Kabul. He was arrested by Faridun and tried in Kabul for heresy but was acquitted.\footnote{131} Successful in many skirmishes, he was finally brought to battle by the Mughal

\footnote{128} Olaf Caroe, \textit{The Pathans}, p. 200.  
\footnote{129} \textit{Ibid.}, p. 203.  
\footnote{130} \textit{Ibid.}.  
\footnote{131} \textit{Ibid.}.  

general Muhsin Khan and defeated with great slaughter at a place called Baro in Ningrahar.

His mantle fell on his son Omar, but he estranged the sympathies of Yusuf Zais and was defeated and killed. His youngest brother Jalaluddin or Jalala, a boy of 14 years was taken prisoner and brought before Akbar in 1581 while he was returning from his first Kabul expedition. Akbar ordered that Jalala be set at liberty. It was an act of clemency which involved not only Akbar himself but his son and grandson, in disturbances which lasted for another fifty years.

Akbar, after a few encounters with the tribes of the region, realized very well, that the full control over these negative tribal areas is neither profitable nor advisable and, of course, least possible. Thus, it seems that he made a working plan of controlling the Khaibar pass road. For this he not only sent the imperial army but also employed the local tribal group Khatak in warding off the continual forays of the powerful Yusuf Zais who made a habit of raiding carvans passing on the highway from Attock to the west. This arrangement worked quite successfully and carvans usually passed through Khyber without any problem.

The compulsions and advantages of the conquest of Gandahar region have already been discussed (2.3.1.6). It was

132 R.P. Tripathi, p. 303.
134 Ibid., p. 212.
felt necessary to conquer Qandahar and to make the Indian empire stable and strong. Akbar was also aware of the fact that in order to conquer and control Qandahar, it was necessary to hold Sind or Thatta. Circumstances in which Thatta region was conquered have already been discussed (2.3.3.4). After the conquest of Qandahar and Baluchistan in 1595, the boundaries of North West India reached its maximum extent and remained so far more than 25 years.

Apart from extending the boundaries of the empire, Akbar did try and succeeded in bringing socio-economic reforms, in the country. The political stability, based on economic development, administrative reforms and social justice, provided suitable conditions for the development of strong inter-regional linkages in the North-West India and elsewhere in the country.

**Jahangir:** Jahangir, who succeeded Akbar in October 1605, consolidated the administrative system which had developed under his predecessor. He maintained the alliance with the Rajputs and tried to further broaden the political base of the empire by allaying with powerful sectors such as Afghans and Marathas. The Mughals played a positive role in establishing India's relations with the neighbouring Asian powers such as Iran, the Uzbeks and Ottoman Turks, thereby opening up greater avenues of India's foreign trade. Trade concessions given to various European trading companies were also aimed at promoting India's foreign trade.
The strength of the Mughal empire grew considerably during the reign of Jahangir. However, parts of Kabul and Qandahar regions remained under partial control of the mighty Mughals. The Mughal repression did not crush the independent and rebellious spirit of the Pathans but kept them within reasonable bounds and did not give them any other opportunity of collecting a considerable force.

In the beginning of Jahangir's reign (1606-7), the Persian ruler, Shah Abbas, had made a half hearted attempt to capture Qandahar but could not succeed.\textsuperscript{135} He, however, kept his eyes fixed on Qandahar and changed his course of action and opened a friendly correspondence with the Emperor, sent presents, and, at intervals sent at least four ambassadors. By those means he expected to persuade Jahangir to transfer Qandahar to Persia. He, at last, succeeded in deluding him because the military equipments at Qandahar were neglected and its garrison was allowed to dwindle.\textsuperscript{136}

In 1621, it was rumoured that the Shah of Persia had collected a large army with a view to capture Qandahar. Jahangir could not believe this. However, by way of precaution he sent a farman to Shah Jahan to come to the court with his army, elephants and artillery.\textsuperscript{137} In the meanwhile it was reported to Jahangir that Shah Abbas had come

\begin{itemize}
\item \textsuperscript{135} R.P. Tripathi, \textit{op.cit.}, p. 388.
\item \textsuperscript{136} Ibid.
\item \textsuperscript{137} Ibid., p. 389.
\end{itemize}
personally and besieged Qandahar.

Shah Jahan refused to go to Qandahar immediately as he wanted to be allowed to stay on at Mandu till the end of the rains. He also wanted to have an absolute command of the army and full control of the Punjab. He was aware of the importance of a full and unqualified co-operation of the province situated on the main road and contiguous to the field of operations.\(^{138}\) Apparently, the attitude of the Prince was plausible. But Jahangir was interested in immediate action with all available force to save Qandahar before the Persians had consolidated their position. He was deeply vexed at the conditions proposed by Shah Jahan and thought these were excuses. While the Emperor was still engaged in collecting the army and settling the affairs with Shah Jahan, the Persian King captured the fort of Qandahar after a siege of forty-five days.\(^{139}\)

Jahangir was anxious to recover Qandahar if he could when the Shah of Persia sent his ambassador, Haider Beg, with a letter stressing the claims of Persia over Qandahar and expressing his intention of maintaining friendly relations with the Mughal court.\(^{140}\) Jahangir replied "what could be in a petty village (Qandahar) that he should set out to take it, and he should shut his eyes to so much

\(^{138}\) Ibid., p. 390.  
\(^{139}\) Ibid.  
\(^{140}\) Ibid.; T.J., II, pp. 240-42.
friendship and brotherly feeling".\textsuperscript{141} Taking advantage of the rebellion of Shah Jahan and the loss of Mughal prestige caused by the fall of Qandahar, Nazar Muhammad, the Uzbek lord of Balkh sent an expedition against Kabul and Ghazni in the nineteenth year of Jahangir's reign.\textsuperscript{142} The Uzbek commander Yalahktush captured some territory of Ghazni and wanted to subdue the Hazaras. The governor of Kabul reinforced Hazaras and defeated the Uzbek officer. The Uzbeks attacked again but were defeated and plundered by the Mughal forces. The Uzbeks now realised the futility of their attempt and Nazar Muhammad sent a letter of apology saying the Uzbek commander had done the mischief of attacking without his permission.\textsuperscript{143}

As mentioned earlier, Akbar as well as Jahangir tried to develop friendly relations with the neighbouring countries. It was possible only after they consolidated the Indian Empire. When the Uzbeks realized that the Mughals, their arch rivals, had established their own powerful empire in India, they treated them with respect and on equal terms. The same was the case with the Persians. The Mughals on the other hand, after the death of Humayun, lost interest in their traditional homeland which was under the effective control of the Uzbeks. This also helped in maintaining relatively better relations with the Uzbeks. As observed earlier, Qandahar was the only bone of contention

\textsuperscript{141} T.J., II, p. 244.
\textsuperscript{142} R.P. Tripathi, \textit{op.cit.}, p. 391.
\textsuperscript{143} Ibid.
between India and Persia. Although both were interested in possessing the strong and strategically located fort of Qandahar, but neither of them were interested in capturing it at the cost of their friendly relations. In fact Qandahar changed hands during the period under study frequently, but, without much bloodshed. Close and friendly political relations were necessary for the development of trade and commerce, they realized.

Thus, it is clear that for the development of inter-regional linkages political integration of the country under the rule of Akbar and Jahangir played a crucial role. Political consolidation helped in the establishment of conditions of law and order over extensive areas and buttressed the friendly relations with the neighbouring countries and with European traders.

3.1.3 Social Bases

The significance of the social bases of regional linkages can hardly be denied. Two important factors which strengthen regional linkages are social stability and cultural synthesis in a country or a region. Conversely, social injustice and lack of communal harmony may create a sense of suspicion among people and make linkages weak. Hence the movement of people, culture, ideas and commodities is only possible when different social groups feel a sense of security.

India became economically and politically very strong
under Akbar and Jahangir. This strength of the empire was mainly due to the socio-cultural synthesis of various communities living in the country. This synthesis resulted from Akbar's deep rooted secular policies which united the Hindus and Muslims of the country. His benevolent attitude towards his opponents and parental love towards his subjects without distinction of sect or creed, developed confidence among different communities. Jahangir followed the same policy with success.

It is necessary to discuss some of the policies of the Mughals which helped in establishing permanent ties among different communities living in the country and led to rapid cultural development by amalgamating the Indian traditions with the Turko-Iranian culture, brought to the country by the Mughals. In this section we shall highlight some of the policies which were responsible for the social integration and cultural synthesis in the region under discussion.

Social Integration: In 1562 Akbar took the momentous step of entering into systematic matrimonial alliances with the Rajputs. It was, however, doubtful if at that time he was very clear in his mind about his secular policy and its far-reaching consequences. But, when in 1563 he abolished the pilgrim taxes at Mathura (levied at the sacred places of the Hindus) and announced in 1564 the abolition of the jizya on the Hindus, it became clear that he was not acting
without a definite purpose and plan. Further reforms might have followed but the outbreak of the Uzbek rebellion with all its manifold complications diverted his attention to wars and conquests.

The marriages between Rajput women and Muslim rulers were not unusual but most of these had not led to the establishment of any stable personal relations between concerned families. Akbar followed a different policy. He gave complete religious freedom to his Hindu wives and gave honoured place to their parents and relation in the nobility. Bara Mal was made a high grandee. The infant prince, Danyal, was sent to Amber to be brought up by Bara Mal's wives. Bara Mal was also placed in charge of Agra which indeed was a great honour. His son Bhagwan Rao, rose to the rank of 5,000 and his grandson, Man Singh to the rank of 7,000 - the rank accorded by Akbar to only one other noble, Aziz Khan Kokas, Akbar's foster brother.

After the conquest of Chittor, most of the leading Rajput rulers accept Mewar had accepted Akbar's suzerainty and paid personal homage to him. The ruler of Jaisalmer and Bikaner had also entered into matrimonial relations with Akbar. Not that Akbar insisted upon matrimonial relations as a precondition of peace with the rulers who

144 R.P. Tripathi, op.cit., p. 229.

145 In 1562, Bara Mal Kachwaha, Raja of Amber came to Akbar to seek protection from the Governor of Mewat. Akbar received the Raja with kindness and promised to bring his trouble to an end. Raja Bara Mal gave one of his daughters in marriage to Akbar. (Tripathi, op.cit., pp. 185-86).
submitted Akbar. No matrimonial relations were entered into with Hadas of Ranthambhor, and yet they remained high in Akbar's favour. The relations between Mughals became strong and cordial. When Udai Singh the ruler of Jodhpur married his daughter Jagat Gosain or Jodha Bai to Salim, a number of Hindu practices were followed. Apart from these Rajput houses, Akbar also had close personal relations with the ruler of Bikaner and Bundi.

Akbar's Rajput policy proved beneficial to the Mughal state as well as to the Rajputs. The alliance provided to the Mughal Empire the services of the bravest warriors of India, and made consolidation and expansion of the empire easier. It is interesting to note that unlike the Sultans of Delhi, who tried to consolidate and strengthen their forces with their own kith and kin, Akbar by inducing the Rajputs into the Mughal army made the empire absolutely Indian. Jahangir a son of a Rajput mother continued Akbar's Rajput policy and ultimately was able to settle the outstanding dispute with Mewar successfully. Thus, Jahangir completed the task began by Akbar and further strengthened the alliance with the Rajputs.

Akbar not only tried to develop ties with the Rajputs but he also tried to promote greater understanding among all the communities of the country. In fact, during the fifteenth century, a number of rulers in different parts of the country had tried to promote greater understanding between the Hindus and Muslims by having secular and reli-
gious literature in Sanskrit translated into Persian; by giving patronage to local languages and literature; by adopting a more liberal policy of religious toleration and in some cases by giving important jobs, including service at the court and in the army to the Hindu. Popular saints, such as Chaitanya, Kabir and Nanak, in different parts of the country emphasised the essential unity of Islam and Hinduism, and laid stress on a religion based on love and devotion rather than one based on a literal interpretation of revealed books. Akbar not only followed this philosophy but persuaded it to its ultimate limit.

Akbar possessed a complex personality but a distinct individuality. He had inherited the daring and broad mindedness of Babar, the patience and mysticism of his father, and the religious-mindedness of his mother. From his childhood he had been mixing with Mughal, Turkish, Afghan and Persian nobles and had thus escaped the contamination of a parochial outlook which renders men incapable of understanding the views and ways of others. 146

From the very beginning of his reign, Akbar gradually accepted a policy of dynamic toleration and active sympathy for religious and spiritual movements. As mentioned earlier, he abolished the poll tax on jizyah which the non-Muslims were required to pay in a Muslim state. Although it was not a heavy tax, it was disliked because it made a distinction between Muslims and Non-Muslims. At the

same time, Akbar abolished the pilgrim tax on bathing at holy places such as Prayag, Banaras, etc. He also abolished the practice of forcibly converting prisoners of war to Islam. This laid the strong foundation of an empire based on equal rights to all citizen, irrespective of their religious beliefs.

Akbar's attitude towards his non-Muslim subjects is closely linked with his views of how a sovereign should behave towards his subjects. A true ruler was distinguished by a paternal love towards his subjects without distinction of sect or creed, a large heart so that the wishes of great and small were attended to. It was also the duty of the ruler to maintain equilibrium in society by not allowing people of one rank or profession to interfere in the duties and obligations of another.

In 1575, Akbar gave orders for the construction of the Ibadat Khana, which was intended for the gathering of selected representatives of theologians, lawyers and mystics. In the beginning Muslim Ulamas and scholars were invited to discuss religious and spiritual matters. Instead of developing better understanding and appreciation the Mullahs wrangled, shouted and even in the presence of the emperor abused each other. At this stage, Akbar opened the Ibadat Khana to people of all regions - Christians, Zoroastrians, Hindus, Jains and even atheists.

147 Ibid., p. 249.
148 Ibid.
149 Ibid.
Unfortunately, debates in the Ibadat Khana had not led to a better understanding between the different religions. In a way, it created greater bitterness, as the representatives of each religion denounced the other and tried to prove that their religion was superior to others. Hence, in 1582, Akbar discontinued the debates in the Ibadat Khana but continued his quest for truth.

_Cultural Synthesis:_ Though Akbar did not succeed in uniting scholars of different religions but he established his image of a King above all the sectarian considerations. His open and inquisitive mind gave rise to an outburst of many sided cultural activity in India. The traditions in the field of architecture, painting, literature and music created during the period of Akbar and Jahangir, deeply influenced the later generations. The development of art and culture in various regions of India during the fourteenth and fifteenth centuries had led to a rich and varied tradition from which it was possible to draw upon. During this period people belonging to different faiths and races contributed to this cultural development in various ways. In a way, this emerging culture lead towards the development of a truly national culture.

_Architecture:_ The Mughals built magnificent forts, palaces, gates, mosques, public buildings and baolis. These buildings display a lot of architectural synthesis which the Mughal rulers patronized.
In 1572, Akbar commenced a palace-cum-fort complex at Fatehpur Sikri which was completed in eight years. Built on top of a hill, along with a large artificial lake, it included many buildings in the style of Gujarat and Bengal. In the Panch Mahal, built for taking the air, all types of pillars used in various Hindu temples were employed to support flat roofs. Persian and Central Asian influence can also be seen in the glazed blue tiles used for decoration in the walls or for tiling the roofs. The most magnificent piece in this complex, however, was the Buland Darwaza, built to commemorate Akbar's victory in Gujarat. The half-dome-portal style of the gate was borrowed from Iran. With the consolidation of the empire, Mughal architecture reached its climax.

Painting: During this period a lot of development took place in the field of painting. New themes of depicting the court battle scenes and the chase were introduced. New colours and forms were also added. The richness of the Mughal style of painting was due to the fact that India had an old tradition of painting. Apart from palm-leaf manuscripts and illustrated Jain texts from thirteenth century, some of the provincial kingdoms, such as Malwa and Gujarat extended their patronage to painting during the fifteenth century.

When Humayun was at the court of the Shah of Iran, he employed into his service two master painters who accompanied him to India. Under the leadership of these painters,
during the reign of Akbar, the art of painting was organized in one of the imperial establishments. A large number of farmers from different parts of the country were invited, many of them from low castes. Jaswant and Dasawan were two of the famous painters of Akbar's court. The school developed rapidly and became a celebrated centre of production. Apart from illustrating Persian books of fables, the painters were asked to illustrate the Persian text of the Mahabharat and Akbar Nama and others. Indian themes and Indian landscapes thus came in vogue and helped to free the school from Persian influence. Under Akbar, European paintings were also introduced at the court by the Portuguese priests.

The art of Mughal painting, however, reached a climax under Jahangir. Under him special progress was made in portrait painting and painting of animals. Mansoor was the great name in this field. From Mughal courts the tradition of painting reached the states of Rajasthan and the Panjab hills.

**Language, Literature and Music:** The knowledge of Persian was quite widespread in north India by the time of Akbar. Persian prose and poetry reached a climax under Akbar's reign. Abul Fazl, leading historians of the age was a great scholar and stylist. He set a style of prose-writing in Persian which was emulated for many generations. The leading poet of the age was his brother Faizi who also
helped in the translation department set up by Akbar. The translation of the Mahabharata was carried out under his supervision. Utbi and Naziri, were among the many poets who migrated from Iran to India during this period and made the Mughal court one of the most important cultural centres. Hindus also contributed to the growth of Persian literature.

Regional languages developed significantly and acquired stability and maturity and some of the finest lyrical poetry was produced during this period. Ramayana and Mahabharata were translated into regional languages. A few translations and adaptations from Persian were also made. Medieval Hindi in the Brij form was also patronised by the Mughal emperors and Hindu rulers. From the time of Akbar Hindi poets began to be attached to the Mughal court.

Akbar was a great patron of music. There were numerous musicians at his court; Hindus, Iranis, Turanis, Kashmiris, both men and women. The court musicians were arranged in seven divisions, one for each day in the week. Tansen was the best musician of Akbar's court. He is credited with creating many new melodies (ragas). He was from Gwalior gharana as was Baba Ramdas - second only to Tansen. The development of Indian music is the true indication of a high degree of cultural synthesis in the Indian society.

It is interesting to note that cultural synthesis

151 Ain, I, p. 681.
and development of art, literature, architecture, painting and music took place most during the reign of Akbar, a king who did not learn the art of writing and did not like reading even if he could.  

The whole socio-cultural atmosphere of the country changed by the liberal policies of Akbar and Jahangir. The impact of Akbar's liberal and tolerant policy was so much that "The Hindus were soon made to feel much their protector as of any one else. By his policy of Sulh Kul, namely, peace with all, the Hindus were brought round to feel enthusiasm for the Mughal Empire and shed their blood for it."  

Thus, during the early Mughal period in India conditions were perfect for socio-cultural interaction among the people belonging to different regions, religious, linguistic groups, castes and creeds etc. Apart from the Mughal court, various cultural centres grew in North-West India and other regions. These cultural centres, not only attracted people from Iran and Turan but from different regions of the country. The presence of scholars, artists, architects, artisans and musicians from different regions in the urban centres of North-West India proves the point.  

3.2 Physical Determinents of Regional Linkages  

Physical features can either have a stimulating or

152 R.P. Tripathi, op.cit., p. 343.
153 Ibid., p. 341.
an impeding influence on the development of regional linkages. Throughout history features like mountain passes and rivers have played a crucial role in the development of regional links by providing well defined natural routes. The determinability of these features increases as we go back in time and as transport technology becomes less efficient.

In mountainous regions, like the one under study, mountain passes have played a decisive role in providing natural passages connecting two regions. They have made communication possible even among regions which are physically separated. Similarly in the plain regions with mighty and broad rivers, fords have played a determining role in the development of possible routes for communication. An attempt will, therefore, be made in this section to identify the popular and known mountain passes and river fords which were being used during the period of early Mughals in North-West India.

3.2.1 Mountain Passes

Mountain passes in North West India have played a decisive role in the history of the sub-continent of India at least upto the Moghul times. Almost all the conquerors of India during the ancient and the medieval times have come through these passes. The Aryans, the Sakas, Kushans and Huns used these passes during the ancient period. Subsequent invasions during the medieval period by Mahmud
of Ghazni, the Ghouris, Khiljis and Lodis were also routed
through these passes. The case of Europeans in general and
Britishers in particular was, however, different as they
came to India through the southern water ways. Their know-
ledge of these passes was very poor, as they knew very
little about the geography of this region. To them this
area was 'Indian trans-frontier' and these passes appeared
very mysterious. In this section, an attempt will be made
to recapture the knowledge of the early Mughals and contem-
porary chroniclers, of the mountain passes of the region.
The passes, mentioned in the contemporary literature consul-
ted, may be grouped under the following heads:

1) Passes through Hindu Kush Mountains,
2) Passes through the Swat Hills,
3) Passes through the Sulaiman Ranges,
4) Passes through the Peshawar Hills,
5) Passes through the Hills surrounding the Kashmir
valley.

3.2.1.1 Passes Through the Hindu Kush Mountains:

The Hindu Kush mountain, forms a water-shed between
the Indus river system and the Amu system, and separates
the Kabul region from Balkh, Qunduz and Badakhshan. There
are several important passes in the range. Seven of them
were mentioned by Babar while describing the Kabul region.154

154 There are other passes also through the Hindu Kush
mountains, but probably Babar mentions only those
seven passes which were more important and less
of these seven, according to Babar three lead to Panjshar. He mentions that out of these three passes, Khawak was the highest. South-east of Khawak pass was another pass on the Tul road. According to Babar the pass "on the Tul road is the best, but the road itself is rather the longest whence, seemingly, it is called Tul." East of Tul road was the Bazarak road and difficult to traverse. It is possible that other passes, with higher altitude and difficult climb, were being used only by local tribal groups and were not suitable for commercial purposes and military campaigns. Some of the roads through other passes were developed later on.

It is Panjshar of ancient times. Panj means five and sher means lions. It refers to the five lion-suns of Pandu.

BN, p. 204. Khawak means hollow. As also mentioned by Babar, this is the northern most pass of the Panjshar valley. This pass has an elevation of 11640 feet. This road is rather long because from Charikar it is along the Panjshar river in the direction of north-east. After passing through the pass of Khawak it follows the Andrab river towards the west almost from its source.

Tul means long, so it is a long route. Like Khawak pass route, Tul pass road is also long and both these passes lie very close to each other. Certainly both of these routes were long to go to Kabul from Balkh and Qunduz. Though these passes are close to Badakhshan, but due to the physical structure of the region there was no good direct road between Andrab river and Badakhshan region. Although Babar mentioned during a later period that this pass road is the best which may be due to construction of better roads.

BN, p. 205.

Bazarak means small-bazar road. In comparison with the Khawak and Tul passes of Panjshar valley, this
Babar mentions that "Bazarak is the most direct like Tul, it leads over into Sar-i-ab, as it passes through Parandi, local people call its main pass the Parandi."  

Abul Fazl, probably copied the description of these passes from Babarnama, but it seems that he could not follow the language of Babar. While referring to the Khawak pass he mentions that it is the highest instead of stating that it is the upper most or northern most pass. He writes "the highest ... is over the Khawak pass, below this is Tal, and next lower in succession Bazarak."  

There is a break between the hills of Panjsher and Ghorband Valley. From this break strikes off one well known route across the backbone of the Hindu Kush. From the Kabul side the route starts from Parwan, an ancient town, and the head-quarter of Sabaktarin and leads to the main pass (presently referred to as Baj-gah). The head of the pass was known as Sar Alang. Babar mentioned this pass separately. In the words of Babar, "Another road leads up through Parwan, it has seven minor passes, known as Haft-bacha (seven-young lings), between Parwan and its pass road is more direct. The road on the Kabul side, starts from Bazarak village, on the Panjsher river, crosses Hindu-Kush through Parandi pass and reaches Andrab river. Though it has an elevation of 15984 feet (meter), due to being shortest of the Panjsher valley passes, it has been used very frequently.

Cont'd... f.n. 159

160 BN, p. 205.
161 Ain, II, p. 405.
162 Holdich, Gates, p. 414.
PASSES THROUGH HINDUKUSH
Based on Babar Nama
main pass (Baj-gah). It is joined at its main pass by two roads from Andrab which go on to Parwan by it. This is a road full of difficulties.

Though there are various passes through the Hindu Kush mountains in the Ghorband area. Babar took note of only three important ones. According to Babar, "Out of Ghorband... three roads lead over." Abul Fazl once again, could not follow the language of Babar and not knowing the region well, observed, "Three other roads lead by Paran up the Ghorband Valley." While discussing these three roads Babar mentions that "The one next to Parwan, known as

163 This pass might have been more important before the times of Babar, as it leads to "Parwan a commercial site more ancient than that of Kabul the headquarters of Sabaktan, the Ghuri conqueror, when he wrested Kabul from Hindu kings, and of Timur the Tartar in later ages. Consequently, the pass which bears north from that point is often called the Parwan". Holdich, Gates, p. 414. The seven small passes mentioned by Babar are difficult to locate because the detailed maps of the area are not available.

164 It is difficult to locate, the second road from the main pass to Andrab, the first one being the road which comes from Khinjan. Possibly the other road was from the village of Yach, but, may be, due to the improvement of the eastern pass-road the traffic had been diverted towards this road.

165 The difficulties of the road are also mentioned by Holdich while discussing Lord William Bentinck's March in 1832 'Lord selected the Parwan or Sar Alang Pass, narrow, rocky, and uneven with a fall of about 200 feet per mile, and was fairly defeated in this attempt to cross, on October 19, by snow. This is about the closing time of the passes generally, the Parwan being only 12300 feet in altitude, although Lord estimated it at 15,000", Holdich, Gates, p. 414; BN, p. 205.

166 EN, p. 205.

167 Ain, p. 405.

168 Babar did not take note of another important pass bet-
the Yangi-yul pass\textsuperscript{169} (New road), goes through Walian\textsuperscript{170} to Khinjan".\textsuperscript{171} Next to this pass road is Qipchag road.\textsuperscript{172} Babar refers to it as the crossing where the water of Andrab meets Surk-\textsuperscript{173}ab (Qizilsu) this also is an excellent road. The last and westernmost pass road on Hindu Kush

Cont'd... f.n. 168

ween Parwan and Walian, known as Kushan or Kaoshan. According to local tradition this pass was traversed by Alexander.

169 It is now known as Walian (Saints) pass. Probably, it was a newly developed pass-road during Babar's times. According to Holdich it is "an alternative to the Kaoshan when latter is in flood", Holdich, Gates, p. 414.

170 Pass at Walian has an elevation of 15100 feet (meter) whereas more known pass of Kushan, east of Walian is 14350 feet (meter). Maybe, due to the newly developed Walian road, Kushan pass became less important, for some time. Like Parwan road this road also leads up to Andrab near Khinjan.

171 BN, p. 205.

172 Pass of the Qipchag road is chahardar, the highest on Hindu Kush with an elevation of 18900 feet (meter).

173 Holdich describes the difficulties of the pass-road in these words. "It is well also to remember, that it is not the physical difficulties of the rough roads and narrow passes which form the chief obstacle to the movement of large bodies of troops. Roads can be made, and crooked places straightened with comparative ease, but altitude sheer altitude, still remains a formidable barrier". Holdich, Gates, p. 419. One can imagine the difficulties of this pass during Babar's time but Babar praises it "for the brave warrior road was excellent". Babar used this pass while he was coming to Kabul, for the first time from Farghana. This pass lead to Doshi, near the confluence of Andrab with Surkhab. BN, p. 205.
according to Babar was Shibr-tu. Babar mentions that "those
crossing by this in the heats take their way by Bamian and
Saighan, but those crossing by it in winter, go on by Ab-
dora (water-valley). Shibr-tu excepted, all the Hindu
Kush roads are closed for three or four months in winter,
because no road through a valley bottom is passable when the
waters are high. If anyone ventures to cross the Hindu Kush
at that time over the mountains, instead of through the
valley-bottom, his journey is hard indeed. The time to
cross is during the three or four autumn months when the
snow is less and the waters are low. Whether on the moun-
tains or the valley bottoms, Kafir high waymen are not
few."

This long passage from Babarnama not only provides
information regarding the pass but also proves that Babar's
geographical knowledge and understanding was excellent.

174 Beveridge saw the significance of the use of tur
with the Shibr pass. As he writes "Shibr is a Hazara
district between the head of the Ghurbund Valley and
Bamian. It does not seem to be correct to omit the
tur from the name of the pass. Persian tu, turn
twist (syn pich) occurs in other names of the local
passes; to read it here as a turn agrees with what
is said of Shibr-tu pass as not crossing but turning
the Hindu Kush (Cunningham)"; BN, p. 205 (fn. 2).

Certainly it is not exactly a pass through Hind Kush
range but it turns and avoids the range. The eleva-
tion is at least, 9800 feet (meter), as compared to
other passes of the Hindu-Kush range. An alternative
route to Andrab valley, after passing Shibr-tu pass,
is Ab-dora or Jal mish. This road is along one of
the tributaries of the Surkh-ab, rising from Koh-i-
Baba, and has no mountain pass. The other road is
through the Bamian, an ancient town and leads upto
Saighan. This road passes through two mountain
passes, Ak Rabat and Katarsun. Ak Rabat has an
elevation of 10,200 feet (meter).

175 BN, p. 205.
3.2.1.2 Passes Through Swat

The Sarkar of Swat, was mostly a hilly terrain. To the south of the hilly parts of Swat and Bajaur districts and north of the Kabul river, lay a fertile plain, known as the Samah. Several passes lie between these plains and the rugged hills of the north. These passes were however inconsequential because very little interaction took place between the Yusufzai Pathans inhabiting the hilly tracts and the Mughals since the Yusufzai's were opposed to any idea of Mughal rule in this region.

The roads to the hilly areas of Swat and Bajaur through these passes were difficult to traverse both from "Hindustan or from the Kabul region. The terrain and the ascents and descents of the passes was so difficult that a very strong Mughal army while passing through them lost thousands of its soldiers in its campaign against the Yusufzais in the Swat region in 1586.

Abul Fazl has refered to some of the important pass-roads of the Sarkar of Swat. According to him there were

176 AN, III, pp. 715-35.

Swat region was attacked by Akbar's army in 1585-86. In this campaign two of Abul Fazl's brothers also took part with other important courtiers of Akbar. Abul Fazl, thus, might have been well informed about the happenings of the region, but it seems that due to the confusion in the camp and a disastrous defeat of the army against the Yusufzais, some important information was not included in the Akbar Nama. Regarding pass-roads to Swad, information given by Abul Fazl is insufficient and the name of these passes do not coincide with the names of passes of earlier and later periods.
two roads in the Buner district of Swad. One led from Hindustan, viz. the Sherkhani pass and the second Balandari Kotal. Although both routes are difficult to traverse, the first is more rugged (see Map 3.2.).

District of Swad, the largest of the three districts of the Sarkar of Swad, is mentioned as having many pass-roads from various regions. According to Ain, "It possesses many defiles. Near, Damghar pass which leads to Kashghar is a town of Manglor the residence of the governor."

177 There is no reference to Sherkhani pass, in any other source, and so it is difficult to identify it. Abul Fazl also gave no other detail of this pass-road. But with the help of various books on historical geography and modern as well as old maps of British period and above all Olaf Caroe's book, it seems definite that the Sherkhani pass cannot be any other than Ambela, east of Malandrai pass, as there are no other important passes to Buner district, than Ambela and Malandri.

178 Balandari is certainly a clerical error for Malandri, as in Persian script, difference is not much ( ). Although exact heights of both Ambela and Malandri have not been mentioned in any of the sources used but from the maps it is clear that these passes are not higher than 5000 feet (meter). The road, due to a difficult and steep climb, was dangerous during Akbar's period.

179 Ain, II, p. 397.

180 Regarding Kashghar, Javett writes "By Kashghar cannot be meant the well known pass to E. Turkastan which is so far removed, but chitral or Kash kar, which according to Erskine (Babar's Memoirs) is corruption of Kashghar with the territory of which it was long included". Ain, II, p. 397, fn. 2. It is not possible to find any pass of this name in the maps, north of Manglor.

181 Ain, II, pp. 397-98.
Apart from this pass, two roads lead to Hindustan through the passes of Malkhand, Baj and Sherkhandah.

Abul Fazl refers to many passes leading from Kabul to Bajaur without naming them. Possibly, the passes referred to lie on ranges which separate Bajaur from Kunar and Nurgul. Of these passes, Suka pass is the most important. According to Ain, "It has only three roads, one from Hindustan called Damishkol, and two from Kabul, one called Samaj and the other Kunar and Nurgul, the easiest of these being Danishkol." There is however, no reference to any pass on these roads. Possibly, Kunar and Nurgul route was more popular to go to the Bajaur fort (Khahr) from Kabul side as compared to Samaj (Possibly Smah) road.

Apart from these passes there were some other important ones between Swat and Buner districts. Abul Fazl, while describing the humiliating defeat of the Imperial Army by the strong Yusufzais, refers to Karakar pass better:

182 Ain, II, p. 398. It is Malakand pass of modern maps. Still this is the most important pass of the Swat region. The pass of Malakand lies just across the low range which separates Malakand from the Samah. Samah is a Pakhtu word for plain, and is applied to the part of the Peshawar (Bigrum) valley north of the Landai river. It has an elevation of 3580 feet (meter). As it is very close to the northern most point, the Samah has been important from the viewpoint of strategy. Abul Fazl, also refers to it as Malakand in AN, III, pp. 721-27.

183 Ain, II, p. 398. There is no pass of this name now. Like the pass of Sherkhani of Buner, this pass of Sherkhanah has not been referred to in any of the sources. In all probability, it is Shahkot of the modern times. Shahkot pass lies east of the Malakand and has been less important as compared to Malakand pass.

184 Ain, II, p. 398.
ween Swad and Buner. The pass according to him was difficult to traverse particularly for big armies.

3.2.1.3 Passes Through Sulaiman Ranges

The Sulaiman Ranges run roughly north-east and south-west but has many divagations. The most important of these is in its highest part, i.e. the Safed Koh (Koh-i-Safed) running east and west. The Sikaram peak with an elevation of 15620 feet (meter) is the highest point in the whole region, south of the river Kabul and east of Kabul-Ghazni axis. There are several other snow covered peaks in the Safed Koh. Babar mentions that it is called Safed Koh because its snow never lessens. Though there are a few passes on the Safed Koh range but due to the high elevations and snow covered areas, there was no practicable road through it. Babar states this clearly as he states, "no riding road crosses it". Thus, all the roads connecting Kabul with Peshawar were through the north of the Safed Koh range.

185 AN, III, p. 721.
186 Caroe, p. xviii.
187 BN, p. 209. Safed Koh means white mountain; in Pakhtu, Spin-ghur (Spin Ghar).
188 BN, p. 209.
189 Though in the modern maps, few tracks are shown connecting Kabul Valley with certain settlements on the northern slopes of Safed Koh but these settlements are not higher than 7000 feet (meter). There is only one track which joins Jalalabad with Kurram and passes through the Safed Koh range. This track was, however, not meant for heavy traffic.
The mountain ranges, south of the Safed Koh, have few considerably broad river valleys to allow traffic along them. Prior to Babar, these river valleys and the mountain passes were being used by various invaders from the west and by merchants of Hindustan and other regions. Babar and Abul Fazl, both refer to these pass-roads of Sulaiman ranges, without mentioning the name of these passes. However, it is not difficult to identify these passes, as the names of the regions through which these roads passed are mentioned.

According to Babar as well as Abul Fazl there were three roads passing through the Sulaiman ranges.\(^{190}\) As mentioned earlier, it seems that Abul Fazl copied the description of these Passes from the Babar Nama. The knowledge of Abul Fazl, about this part of the Kabul region, was limited as compared to Babar since the region was not under the effective rule of Akbar. About the passes through Sulaiman (Mehtar Sulaiman) range Babar writes, "one is by way of Bangash,\(^{191}\) another by Nagh\(^{192}\) (Naghz) and another through


191 Bangash lies south of Anangnihar tuman which is in the sarkar of Kabul. Bangash tuman consists of the upper reaches of Kurram river which rises from the Safed Koh mountains. The Bangash road must have been through the Kurram Valley. The pass of Kurram route is Pawai, lying 25 miles (kms) north west of Kurram fort, at an elevation of 8,600 feet (meter). In fact, it has been an alternative route to Khaibar pass route. Holdich considers these two routes Khaibar and Kurram "as a twin system, with Kabul as the common objective." Holdich, \textit{Gates}, p. 135. The Kurram pass, being the direct road between Bannu to Kabul and Ghazi, has been considered for centuries as one of the most important pass route across the Sulaiman mountains.

192 It is difficult to identify this road, as this was
Farmul, the passes being also low (see Map 3.3).

Passes on these roads were not very difficult to cross, as Paiwar is 8,600 feet (meter) high while Balai and Tochi passes are still lower. The importance of these passes declined with the conquest of Kabul and Hindustan by the Mughals. Of these passes, Paiwar was perhaps the most important pass and thus Bangash road was the most popular of the three roads mentioned. (See Map 3.4)

Apart from the above routes, Babar refers to some alternative routes through the Sulaiman range. When he was near the Bannu region and was planning to Ghazni. Babar writes about these roads and mentions that "one was the Tunnel-rock (Sang-i-surakh) road, passing Birk (Barak)

Cont'd... f.n. 192

not a regular route for heavy traffic. In comparison with Bangash road it was little known. However, the Naghaz road was through the pass of Spin Tangi (Batai Pass) east of Matum or Khost.

Farmul was the southern most tuman of sarkar of Kabul. Tochi, a tributary of Kurram river which rises from the hills of Farmul or Urgun provided a direct route from Bannu to Farmul. Tochi pass is located, west of Bannu where the plain ends. According to Holdich "the Tochi does not figure largely in history, but it has been utilized in the past for sudden raids from Ghazni in spite of the difficulties which nature has strewn about its head." Holdich, Gates, p. 136.

BN, p. 206.

Ibid., p. 235.

According to Beveridge if Birk means fastness than Kaniguram road may be identified as the Sang-i-Barakh road. According to Raverty this name is given to three or four 'daraahs' on Dasht-Farmul road.
KABUL - LAHOR ROUTES

Based on Babar Nama & Ain-i-Akbari
PASSES THROUGH SUB-MONTANE INDUS & SULAIMAN RANGE

Map 3.4
and going on to Farmul; the other was along the Gomal, which also comes out at Farmul but without touching Birk (Barak). 197

The Gomal route was not only important in comparison to the Surakh-i-Sang road but also in comparison to the Tochi route. The pass on the Gomal road is known as Ghwaliri pass. This pass is through a defile, with perpendicular walls 50 to 100 feet high and about 200 yards wide. This pass was used for several centuries as it was lying on the most important trade route between India and Ghazni. There is another pass on Gomal road. This pass is known as Sarwandi 198 and lies south of Kattawar plains.

In the region lying south of Gomal and north of Bolan, there are various routes of local importance. These routes, however, were through rugged and difficult terrain and were, therefore, not being used by large armies and caravans. There is a description of this region in Babar-Nama 199 But since Babar's knowledge of the region was poor, he could not follow any regular route to Ghazni. In fact as mentioned above, there is no pass of any consequence in this region.

197 In fact Gomal was the most convenient pass to reach Hindustan from Ghazni. Ghazni which lies between Kabul and Qandahar was the capital of Mahmud Ghaznavi and during his times Gomal pass was used very frequently. But it seems that with the decline of the Ghazni region and the city of Ghazni there was a setback to this pass route. As mentioned earlier, during the times of Babar, Ghazni was not an impressive town; BN, p. 235.

198 From Gomal (about 3000 feet (meter) high) there is a continuous ascent to the pass of Sarwandi (7500 feet-meter - high).

Certainly, the most important of the southern passes, joining Qandahar with Multan was the Bolan pass. In fact, for the trade with Persia it was even more important than the Khaibar itself. It is strange to note, that there is no reference to the Bolan pass, by name, in any of the contemporary sources of the period. But there is no doubt that this pass, which lies between the territories of Shal and Sibi was being constantly used for several purposes. There are various references to the movement of Shah Beg, contemporary of Babar, from Qandahar to Sibi via Shal. The only direct route between Shal and Sibi is through Bolan pass. Hasumi after describing the areas of Sibi and Gandeva mentions that the 'route to Qandahar is from the centre of this plain'. This route is no other than the Bolan pass route. Humayun had also passed through the Bolan while proceeding to Persia from the Sind region.

3.2.1.4 Passes Through Peshawar Hills

Between Swat Hills and Sulaiman Ranges lies the Valley of Peshawar, surrounded by hills on three sides. There are few passes through these hills - providing possible line of communication between Peshawar and Kabul. Though Khaibar pass - road is the most direct and the most convenient between the cities mentioned, yet surprisingly it was only during the times of Babar that the Khaibar route came into prominence. In fact there is no clear reference to prove

200 The pass proper extends from Kolpur (known to the natives as Kharlakai Kotal) to Rindli, and is about
that this pass was used by any of the early invaders. Perhaps other alternative passes were being used before the development of the Khaibar as the main trade route during the times of Akbar.

It is doubtful whether in Alexander's time, with unbridged rivers, the Khaibar route would have been the easiest or even most direct\textsuperscript{201} between Jalalabad and Charsadda. Thus, it is not correct to assume that the Khaibar was the only route connecting Peshawar and Kabul. It is however, reasonable to conjecture that prior to the Khaibar pass getting the status of the Imperial Highway much traffic might have passed through other passes located in the hills north of the pass.\textsuperscript{202}

Yet with time Khaibar pass - road became the most important linkage between the Kabul region and Hindustan during the Mughal period. It played a dominant role in the political and socio-economic life of the Indian people. It

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fifty-four miles long. It is the widest in the Laleji plain on the south, whence it narrows to a gorge known as Afghan Pon-Zak.

The Bolan pass is about 500 miles (800 kms) south of Khaibar pass. The opening is five miles north-west of the town of Dadar 742 feet above sea level and the route leads over the mountain chain', by a succession of narrow valleys and gorges. The crest of the Bolan pass is 580 feet above the sea and total length from Dadar is 60 miles. Since the ancient times, this pass has been the most used track connecting Qandahar region with the Punjab and Sind.

\textsuperscript{201} Caroe, p. 49.

\textsuperscript{202} Ibid.
was used not only by invaders and conquerers but also by traders and administrators. It helped in the development of close socio-economic ties between Hindustan and Kabul and regions beyond.

Babar passed through Khaibar\textsuperscript{203} route a number of times.\textsuperscript{204} Humayun fortified the fort of Jalalabad in 1552 in order to guard this pass. It was traversed by Humayun's army in his march to conquer Hindustan. However, it was during the times of Akbar that this pass-road became the "king's Highway". It was developed to the extent that it became passable even for wheeled traffic. The improvement of this pass road, gave new impetus to Indian trade. There are various references to Khaibar pass in the contemporary sources in relation to various socio-economic and political activities.

While discussing the distribution of tribes it has

\textsuperscript{203} The Khaibar pass begins at Jamrud, about ten miles (16 kms) from Peshawar. The total length of the pass upto Dakka is thirty-three miles (53 kms). At Jamrud, the hills close in on either side and the width of the pass is 450 feet (meter) with almost perpendicular sides. (The pass here has more the character of a valley than a ravine). During the British period many travellers passed through this pass road. There are various geographical factors which helped Khaibar route to remain as the most important route between India and Kabul (later Afghanistan). First it developed as the shortest route between the above mentioned places and could be traversed in two easy marches or in one day. The height of the pass (3500 feet) also played an important role in given it a special advantage - remains open throughout the year. Lastly water is available at regular distances.

\textsuperscript{204} BN, pp. 229, 382, 411-13.
already been mentioned that the Khaibar region gradually became a troubled area and at times, due to highway robbery, travelling was not safe. Akbar made every possible effort to keep these tribal activities in control so that the pass may remain safe for travellers, traders and administrators. Akbar not only tried to keep the Khaibar route safe but also tried to develop an alternative route i.e. the Karapa pass-road.

Babar in his list of roads between Kabul and Hindustan does not mention Karapa pass-road. It is also confirmed by Abul Fazl that during the times of Babar this pass was not used. This pass, however, was not a new discovery and had been under constant use prior to Babar. The pass begins at Peshawar, and, after traversing two defiles, leads to Jalalabad. Hephaistion, Alexander's general is said to have come through Karapa pass.

3.2.1.5 Passes Through the Hills Surrounding the Kashmir Valley

The Valley of Kashmir is surrounded on all sides by

205 Karapa or Karappa, lies north of the Kabul river near Abkhana. Through this pass, Jalalabad may be reached from the valley of Peshawar (Samah) after traversing two defiles. During the British period also this pass-road was some times more secure than the Khaibar route. Holdich reports that Masson also mentions two other routes as being popular in those days i.e. those of Abkhana and Karapa, and he asserts that they were far more secure for traders than Khaibar, but "not so level nor so direct". Gates, p. 351.

206 Ain, II, p. 404.

207 Caroe, p. 49.
high mountains. All the writers and travellers who have written about this valley make a special mention of the impregnability of the surrounding mountains. Hieun Tsiang took special notice of the mountains enclosing the Kashmir Valley and refers to several passes through them. Most of these, according to him, were, however, "narrow and contracted." 208

While writing about Kashmir, Alberuni refers to the fact that Kashmiris "are particularly anxious about the natural strength of their country and, therefore, take always much care to keep a strong hold upon the entrances and routes leading into it." 209 Kalhana gives a mythological touch to the location of these mountains and refers to them in these words, "to protect, forsooth, the Nagas who came (to seek shelter) afraid of Garuda, it stretches all its arms high above in the guise of mountain-walls." 210

Mirza Haider, Abul Fazl and Jahangir are unanimous in referring to the general impregnability of the surrounding mountain walls. 211 These mountain ramparts undoubtedly


211 TR, p. 430, 432; Ain, II, p. 351; TJ, II, p. 143.
increase the relative importance of the passes and of the river valleys which provided natural routes to territories outside Kashmir. However, these numerous passes were very difficult to traverse. During the times of Akbar, only two, Bhimbar and Pakli out of twenty-six roads to Hindustan, were "generally practicable on horseback."\(^{212}\)

There are numerous mountain ranges around the valley of Kashmir and so on every road there are many passes, generally difficult to traverse. These passes on the major roads leading to Kashmir, will be discussed in a subsequent chapter. It should however be pointed out here that passes on the major routes i.e. Pir Panjal (Bhimbar) and Jhelum Gorge (Pakli),\(^{213}\) were relatively easy to cross. The efforts which were being made to keep these routes practicable have been mentioned in section, on Roads (3.3.2).

Though, there are several passes, defiles and ravines on both the roads to Kashmir, few are worth mentioning. For instance, on the Pir Panjal route there were only two significant passes i.e. the Ratan Panjal\(^ {214}\) pass and the Pir Panjal pass\(^ {215}\) itself. Although, of these two the Ratan

\(^{212}\) *Ain*, II, p. 351.

\(^{213}\) *Ibid.*

\(^{214}\) Ratan Panjal Pass has an elevation of 8200 feet (meter) above sea level. The slope from the southern side to the summit is quite steep and the climb is difficult. There is hardly any depression in the ridge at the summit. From the summit of the pass, towards Baramgala, there is a descent of 1,700 feet (meter) in a distance of 2 miles (kms.).

\(^{215}\) The elevation of the summit of the pass is 11,400
Banjal pass is relatively lower but according to Abul Fazl it was "high as heaven."\(^{216}\) The Pir Panjal pass, lying north of the Ratan Banjal, on the Pir Panjal range is higher (11,400 feet) and very difficult to traverse as the upper half of the valley remains covered with a thick sheet of snow. Abul Fazl describes the difficulties of the pass route in these words, "shall I describe the severity of the cold? Or shall I tell of the depth of the snow, and of the bewilderment of the nature of India? Or shall I describe the height and hollows of this stage."\(^{217}\)

There are few quite dangerous, though not very high passes on the Pakli (Jhelum Gorge) route. Of these passes, according to both Abul Fazl and Jahangir, Kuwarmat (Kuwar-mat) was the most difficult on this route.\(^{218}\) According to Jahangir Kuwarmat "is the last of the Kotals on the road."\(^{219}\) The other important pass on this road is Bulias or Bhu1-bus.\(^{220}\) This pass was also fairly arduous to traverse. In the words of Abul Fazl, "The road was almost unparalled for

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feet (meter). It is reached from the western side by a steep, narrow, boulder-strewn path, cut in zig-zag from out of the mountain side. From the summit of the pass, which is comparatively level, with lofty walls of mountain masses on either side, is a gradual and easy descent over a grass-covered plateau, like a mountain meadow, hemmed in by walls of rock, a glen 5 miles long by half a mile in width.

\(^{216}\) AN, III, p. 822.
\(^{217}\) Ibid., p. 823.
\(^{218}\) Ibid., p. 848; T.J., II, p. 133. It is Kokaramast of Elphinstones map.
\(^{219}\) T.J., II, p. 133.
\(^{220}\) AN, II, p. 850; T.J., II, p. 131. It is Pelissa of
difficulty, narrowness and height and hallows."221 Jahangir, while he was proceeding to Kashmir was also informed about the difficulties of the road. He was told, according to him that, "these hills were very narrow and difficult (to pass), and they could be crossed by a crowd of men only with great trouble."222 The last important pass on this road was known as Pin daraug. Jahangir explains the name which literally means delay in cotton thus, "As the rulers of Kashmir had placed a superintendent there, who took duties from loads of cotton and delay takes place here for the collection of the duty.223 It is said to be a "Kotal of great height, ascent being 1 Koss, and the descent 1 to \( \frac{1}{2} \) koss.224

Apart from these two well known roads to Kashmir from Delhi and Kabul there were two others. According to Tarikh-i-Rashidi, where Zafar Nama has been quoted, "the road leading to Khorsan is so difficult that it is impossible for beasts of burden with loads to be driven along it."225 Mirza Haider also travelled through this road and found it

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the map. Stein calls it as Buliasa.

221 AN, III, p. 850.
222 T.J., II, p. 131.
223 Ibid., p. 128.
224 Ibid.
full of dangers.

The road, leading to Tibet has also been referred to by Mirza Haider in the Extract from the Zafar Nama. It is said to be "easier than these two (to Hindustan and Khurasan) but during several days one finds nothing but poisonous herbs which makes the transit inconvenient for travellers on horseback, since the horses perish."\textsuperscript{226} Mirza Haider, refers to these passes in these words: "... on the road to Kashmir there are many passes, which the Khan's strength will not allow him to cross."\textsuperscript{227} One of these is the Zoji pass, through which Mirza passed.\textsuperscript{228}

Mirza Haider refers to some other passes by name. Two passes on the Yarkand (So-Ch'e) and Kashmir road are referred to as Sanju\textsuperscript{229} and Askardu.\textsuperscript{230} Mirza Haider mentions that the journey between these two passes is of twenty days. Other important passes which were used by Mirza Haider but were not referred to by name are Karako-

\begin{align*}
\textsuperscript{226} & \text{T.R., p. 432.} \\
\textsuperscript{227} & \text{Ibid., p. 421.} \\
\textsuperscript{228} & \text{Ibid., p. 423.} \\
\textsuperscript{229} & \text{Ibid., p. 405.} \\
\textsuperscript{230} & \text{It is in fact Skardu pass in the Baltistan area. It is a Tibetan name. According to the editor of Tarikh-i-Rashidi the passes in that quarter "are now-a-days blocked by glaciers, and the road has become impracticable for travellers", p. 405, T.R., p. 405n.}
\end{align*}
Apart from all these passes, there were hundreds of other passes in the surrounding mountain ranges but which, during the period under study, remained of little consequence.

3.2.2 River Fords

Certainly fords were the earliest mode of crossing a river or stream. During the primitive stages of technological development, fords had to be sought to cross streams. Location of fords was a determining factor in the human movement in areas where streams or rivers were deep or wide. During the periods under study, location of fords on the major rivers must have played a determining role in deciding the nature and the extent of interaction between various communities.

The changes in the river courses of the Indus system have already been mentioned. Obviously these changes in the river courses, must have simultaneously changed the location of fords. These changes in their turn must have affected the existing routes in those regions, and like the political and economic factors, must have been responsible for the growth and decay of certain settlements during ancient and medieval periods.

231 T.R., p. 405n.
232 Ibid., p. 446n.
233 Ibid.
Though, carpentry and masonry were fairly developed in India during ancient and early medieval periods, bridges were scarce during the Mughal period. In the absence of bridges, possible ways of crossing rivers were boats, rafts and fords. Caravans, not having boats or rafts, usually crossed the rivers of Punjab and Sind through fords. Many of the fords were not 'permanent' as they could be used only during the dry seasons. Caravans reaching river banks during the floods were required to stop and wait for the rivers to calm down. The cart-drivers, well aware of the formidable streches would then take them safely through stony shallows.

Babar as well as Humayun, before they became rulers of India, usually forded the rivers of the Indus system. Regarding Indus river, Babar mentions that it is fordable above its confluence with Kabul river, but, only during the winter season. In the words of Babar "In winter, however, people ford the Sind-water" above its junction with the

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234 According to Beveridge, Indus ford was at Haru or Leech's Harroon, apparently, 10 miles above Attock. EN., p. 206. But Caroe mentions that this ford was close to the village Hund. Caroe asserts that Babar must have crossed the Indus by the "old and well-known ford close to the village of Hund, the only place it can be forded, and that only at low flood in winter time." The Pathans, p. 163. Regarding the name of ancient settlement of Hund (Chind) there has been a considerable difference of opinion. According to Cunningham, Hieun Tsiang's U-to-kia-han-cha or Udakhanda "tallies exactly with the position of Chind, on the north bank of Indus about 15 miles above Attock". Ancient India, p. 44. There is no reference to Attock in Babar Nama as it probably came into prominence during the time of Akbar when a ford and a bridge was constructed at this place. But the deve-
Kabul-water\textsuperscript{235} and ford this also.\textsuperscript{236} Babar must have forded the Indus above its confluence with the Kabul river near the village of Hund or Ohind. He mentions it clearly, "In most of my expeditions into Hindustan, I crossed those fords, but this last time (1525) when I came, defeated S.I. Ibrahim and conquered the country, I crossed by boat at Nilab. Except at one place mentioned above, the Sind-water can be crossed only by boats."\textsuperscript{237}

Babar perhaps crossed Indus seven times during his life time. There are references to five of his expeditions to Hindustan in Babar Nama and several other sources of the period. In his first expedition to Hindustan, in 1505, Babar did not cross Indus due to certain unfavourable circumstances and returned through a circuitous route to Kabul. For the first time in 1519 he crossed the Indus through a ford, at Hund or Ohind above the junction of the Kabul and the Indus rivers. About the fording of the Indus, Babar mentions "Mr Muhammad the raftsman and his elder and younger brethren were sent with a few braves to examine the...

\textsuperscript{Cont'd... f.n. 234}

lopment of Attock, must seriously have affected its prosperity and its gradual decay. In any case, Ohind or Hund, was the place which Babar referred to.

\textsuperscript{235} Beveridge in a footnote writes "the text might be read to mean that both rivers were forded near their confluence, but finding no warrant for supposing the Kabul river fordable below Jalalabad, I have guided the translation accordingly. This may be wrong and may conceal a change in the river", B.N., p. 206, fn. 5.

\textsuperscript{236} B.N., P. 206.

\textsuperscript{237} Ibid.
Sind-river (darya) about and below the ford. He further writes "Next day... the horses and baggage - camels crossed through the ford and camp - bazar and foot-soldiers were put over rafts ... at the Mid-day Prayer of this same day ... every one had crossed."

In his return journey, Babar reached the Indus and found that "a great raft of grain had stuck in the mud of that same ford, and do what its owners would, could not be made to move." But the language of Babar Nama, thereafter, is confusing as Babar mentions that "Near noon we were a little below the meeting of the waters of Kabul and Sind, rather above old Nil-ab, we dismounted there between two waters." Possibly 'below' here means 'before'

238 BN, p. 378.
239 February 17, 1519, as mentioned earlier, Indus was fordable during this time (winter). During this expedition Babar reached Indus through the Sawati region (north of the Indus) so there was no question of his crossing the Kabul river.
240 BN, p. 378.
241 Ibid., p. 392.
242 Nil-ab, here refers to, ferry-station and not to the Indus river. There were two Nil-abs; the one referred to here lies in the north, and the other one shown in various maps, including Cunningham, lies south of Attock on the western bank of the Indus.
243 It shows, that Babar crossed the Indus river through the ford of Hund or Chind and then dismounted between Kabul and the Indus rivers. But Beveridge tries to prove that Babar was still below the Attock and not above it as he mentions "Perhaps this aiki-su-arasi (miyan-du-ab) was the angle made by the Indus itself below Atack; perhaps one made by the Indus and an affluent" BN, p. 392, fn. 4. However, Babar possibly crossed the river at the ford as he had reached the
as subsequently he mentions that "From Nil-ab six boats were brought, and were apportioned to the right, left and centre who busied themselves energetically in crossing the river."244 It is clear from the above references that Babar first crossed the Indus and then dismounted between the Kabul river by boat as it also was not fordable after Jalalabad. It had taken them more than three days to cross the river by these boats245 which are said to have been six in number.

Unfortunately, our knowledge regarding Babar's third and fourth expeditions is very limited and hence it is not possible to determine the route of these expeditions. But Babar must have crossed the Indus through the fords in two of his expeditions, i.e., in 1520 and 1524, crossing it twice on both occasions. The fifth and the last time, when he used boats to cross the Indus he had a large number of people and animals.

The Kacha-Kot or Haru river, a small tributary of Indus, running in the east-west direction, was crossed by Babar on various occasion. During his second expedition to Hindustan, he forded the Kacha-kot246 water but the name

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ford and there was no reason for him not to cross it, the water was still low (it was 21st of March) as indicated by the raft which was almost grounded; BN, p. 392

244 Beveridge is of the opinion that the river means the Indus but in all probability Babar was referring to the Kabul river; BN, p. 392.

245 BN, p. 392.

246 Ibid., p. 379.
of the ford is not given, probably the river was easily fordable. The river was forded by Babar in his return journey from Bhira, after more than a month.\textsuperscript{247} There is a reference to this in Babar Nama in connection with the fifth and last expedition of Babar.\textsuperscript{248}

Babar forded the Suhan river whenever he crossed the Indus to come to Hindustan. This tributary of the Indus is much bigger than the Kacha-kot and flows from the north to south-west. Babar forded the Suhan river first in 1512 both while going to Bhira\textsuperscript{249} and on his return from there.\textsuperscript{250} Since the names of the villages, near the fords were not given, it can be surmised that this river was also generally fordable. On the fifth expedition, when Babar took a more northerly route, he found the Suhan "a torrent, the waters of which were standing in pools. These pools were all frozen over. The ice was not very thick, as thick as the land may be."\textsuperscript{251}

The Jhelum or Bihat, was forded by Babar and his men, each time they crossed the Indus. Babar conquered Bhira in

\begin{itemize}
\item \textsuperscript{247} EN, p. 392.
\item \textsuperscript{248} Ibid., p. 452.
\item \textsuperscript{249} Ibid., p. 379.
\item \textsuperscript{250} Ibid., p. 391.
\item \textsuperscript{251} Ibid., p. 452. According to Beveridge "Presumably this was near Parhala, which stands, where the Suhan river quits the hills, at the eastern entrance of a wild and rocky gorge a mile in length. It must have been this gorge that Babar approached Parhala in 925." Fn. 2.
\end{itemize}
1519 and remained for one night on the right bank of the Bihat on the opposite side of Bhira, though his language suggests otherwise. "At the mid-day Prayer we dismounted on the east of Bhira, on the bank of the Bahat." This was a misjudgement that Babar made. It is possible that he encamped on the western side of the Jhelum - north of Bhira instead of the east. Next day (February 22nd 1519) he visited Bhira. Although there is no reference to fording of the Bihat, he, most probably, forded it. Interestingly, he refers to the Ford of Bihat only on occasions when it was unfordable. "On Sunday (February 27th) so much rain fell that water covered all the plain ... while at the ford near Bhira there was no footing for more than an arrow's flight, people crossing had to swim." Any how, it is clear that during the winter season, Bihat near Bhira was fordable and they found a ford in the river, only two miles of it, next day.

Babar forded the Bihat, for the last time, on December 24th 1525, below Jhelum. The same spot was selected during the period of Akbar and Jahangir, for the construction of boat-bridges on the Bihat, at the time of their journeys, a cross it. Babar might have forded Chinab also.

252 BN, p. 382.
253 Ibid., p. 383.
254 Ibid., p. 384.
255 Ibid., p. 453.
though there is no clear description of this. However, he encamped near Chinab. 256 Babar, forded the Ravi near Kalanur 257 and the Beas opposite Kanwahin. 258

Humayun also forded most of these rivers, after his defeat against Sher Shah Suri. Obviously, he was moving in uncertain conditions and the only way to cross the rivers was by fords. He crossed the Sutlej river through a ford near Machiwara, though at that time it was full of water. Humayun, crossed the river at Machiwara ford while returning to India to conquer it. Jauhar mentions about the ford in these words, "the Afghans, being puffed up with pride and self-sufficiency, marked out a ford across the Sutlej, opposite to the town of Machwarah ...." 259

There are references to Humayun's crossing of other rivers, but no detailed account of their fords is available. Even the names of fords are not given. The only reference to the ford at Chenab near Bhira is given by Jauhar. "... King ordered an elephant to be swam across, and as soon as the elephant had entered he spurred on his own horse, and was followed by all the party now reduced to forty persons." 260

256 BN, p. 453.
257 Ibid., p. 458.
258 Ibid.
259 Jauhar, p. 123.
260 Ibid.
On the basis of the above references, few observations can be made. Babar on all occasions, barring the final expedition to Hindustan, forded Indus through the traditional and ancient ford, near Ohind or Hind. Moreover, he made all his expeditions during the winter seasons. One can think of certain geographical reasons for this. Though this area is not a high rainfall area, but during the rainy season, travelling was difficult for larger groups in the Punjab plains. The Punjab rivers were thus fordable only during winter season. With his limited resources Babar had no other means of crossing the rivers but to ford them. Perhaps, high temperatures also prevented Babar to come to India in summers as his army-men were recruited from colder regions.

3.3 Technological Determinants of Regional Linkages

It has already been observed that physical factors have played a crucial role in determining the routes of communication and interaction not only within this region but also from outside it. The deterministic influence of the physical factors, over the actions of man was stronger during the ancient period than in the medieval times. The influence of these factors became less decisive with the technological attainments of the people. In fact the technological attainments of society, at any time, determine the role of the physical environment. It is therefore
necessary to know about the level of technology achieved by the people during the reign of the Early Mughals.

For the purposes of the present study it is not necessary to go into the details of all aspects of technological development of the period. An attempt is therefore being made here to study those aspects of prevalent technology which determined the level of trade and communication in the region. The most important technological determinants therefore, were the bridges, roads and means of transport because these must have influenced the flow of traffic on the possible routes. We shall, therefore, initially try to obtain information about the types of bridges and their location within North West India and subsequently, with the help of contemporary literature, we will attempt to ascertain the level of technology of road construction in order to understand the general conditions of highways and other important roads within this region. Lastly, an attempt will be made to assess the means of communication, their importance and extent of their use in the different parts of the region.

3.3.1 Bridges

During the early Mughal period there were only a few permanent bridges on the rivers in the region under study. The probable reasons for this were mainly technological and strategic. Technological problems were obvious. With the given level of technological development, it was not
possible to construct permanent bridges over the major rivers of the region, in their lower reaches. In the upper courses of these rivers also bridges were constructed only at those places where they were considered beneficial, politically and economically. It seems, that due to strategic considerations in this region only few permanent bridges were constructed.

The permanent bridges, of any consequence, were constructed only after the consolidation of the Mughal empire by Akbar. There is no reference to any permanent bridge on the major rivers, either of the Indus system or of the plains, prior to Akbar's region. Earlier these rivers were being crossed through fords by ferries or boat bridges. We have classified the region's bridges into two categories; permanent and temporary for a better understanding (see Map 3.5).

3.3.1.1 Permanent Bridges

As mentioned above in the contemporary literature of the pre-Mughal period there are few references to permanent bridges over the rivers of the region. With the development of suitable technology of bridge making, during the early Mughals, a lot of permanent bridges of various types were constructed. Construction of better roads was meaningless in Punjab without bridging the major rivers of the region. Hence with the construction and repair of roads,
Akbar and then Jahangir gave orders to construct bridges where ever they were considered necessary, possible and safe. Apart from the bridges constructed by the monarchs, there were also those built by the governors for administrative and strategic requirements. Even some bridges were constructed "by the merchants, officials and zamindars from philanthropic motives."^{261}

The permanent bridges constructed during the pre-Mughal as well as the Mughal period in the different parts of the region were of various types. This regional variation in the type of bridges was mainly due to physical, economic and technological factors. For a better understanding of the distribution of permanent bridges it is necessary to divide them into three categories; stone bridges, wooden bridges and rope bridges.

**Stone Bridges:** Though references to stone bridges are not numerous in the sources consulted, but certainty stone bridge of small size existed. Monserrate who accompanied Akbar during his expedition to Kabul (1581) mentions of a stone bridge near Karnal^{262} in Punjab. Another stone bridge was built during Akbar's reign near Nakodar under the supervision of Abul Fazl. Jahangir refers to this bridge and mentions that Akbar had given Shaikh Abul Fazl

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262 Monserrate, p. 98.
gold of the weight of 20,000 rupees to build an embarkment between these two parganas and prepare a water fall."263

A bridge was constructed on Baba Hasan Abdal, in the fourth year of Jahangir's reign. Jahangir refers to this in these words "Five thousand rupees more of the money from my weighing were entrusted for the construction of a bridge at Baba Hasan Abdal and the building that is there."264

There are references to the construction of some other bridges during the time of Jahangir but the material used in their construction is not known.

As mentioned earlier, there were other bridges, built by governors, merchants and local zamindars on their own initiatives. "There were many bridges of stone in and around both Delhi and Agra. The Athpula bridge, Khairpur Ka pul, east of Sikandar Lodi's tomb, was built by Nawab Bahadur, one of Akbar's nobles."265 There are reference to a stone bridge over a branch of Jamuna to provide access to the tomb of Humayun in Delhi. William Finch, who travelled India during the reign of Jahangir refers to this bridge in these words. "A little short is a stone bridge of eleven arches over a branch of Gemini (the Jamuna); from thence a broad way shaded with great trees leading to the

263 T.J., I, p. 135.
264 Ibid., p. 160.
265 A.K.M. Farooque, p. 46.
sepulchre of Humaron (Humayun)." De Laet also refers to this bridge more or less in the same way as he mentions "Not far from these ruins a branch of the river Jemini or Gemena(146,205),(860,508)

"William Finch, on his way to Lahore from Agra, found a bridge near Sirhind and mentions "Syrinaur (Sirhind) 7 C; it hath a fair tank with a summer house in the middest to which leads a bridge of fifteen stone arches." De Laet also noticed the beauty of this spot and mentions "This city (Sirhind) has a beautiful tank, in the middle of which is a temple approached by a stone bridge of 15 arches." In Lahore, a strong bridge was built by Bayazid Biyat, the author of Tarikh-i-Humayun Wa Akbar in 1590. In Kashmir, Jahangir saw various bridges of stone and wood, as he mentions "There have been built in the city four very strong stone and wooden bridges, over which people come and go. They call a bridge in the language of this country

266 William Foster, Early Travels in India (1583-1619), London, 1921, p. 156.


268 Foster, Early Travels, p. 158.

269 De Laet, pp. 49-50.

270 Bayazid Biyat, Tarikh-i-Humayun Wa Akbar, Calcutta, 1941, pp. 374-75.
Possibly there were many more stone bridges in this region for which there is no record. Though we are not directly concerned with the bridges of eastern and southern regions, but construction of the stone bridges in these regions proves that technology of bridge making was fairly advanced during that period. De Laet refers to a bridge on Gumti near Jaunpur. This bridge was built by Munim Khan Khan Khannan, who completed it in 1567. The bridge which blends art and utility marvellously, still stands today in all its glory and grandeur.

On the basis of the distribution pattern of the stone bridges, a few observation may be made. Nearly all the stone bridges were either built in the gardens, on small streams or were constructed near historical monuments, like Sikander Lodi's tomb or Humayun's tomb. Though the technology of bridge making was fairly developed still it was not possible to construct stone bridges on major streams of considerate width. Consequently, there was no stone bridge on any of the major rivers of Punjab or Sind. Moreover, not a single stone-bridge was helpful to the travellers in the region as they were not located on the major routes. It may, therefore, be surmised that they were meant for

272 De Laet, p. 65.
beauty rather than utility.

Wooden Bridges: There are various references to permanent wooden bridges in the contemporary sources and in the accounts of travellers of the period. Monserrate while going to Kabul with Akbar in 1581, saw a wooden bridge being built over the Sutlej\(^2\) (in Machivara, Ludhiana district) and noticed several others across the Beas (Dungarri), the Ravi (Kalanaur) and near Sodhra.\(^3\)

During his march to Kabul in 1581 Akbar gave orders to construct a bridge near Attock on Indus. Abul Fazl mentions this in the following words, "He encamped at the place where the Indus and the Kabul river meet. He left the main camp with an immense quantity of baggage on the banks of the Indus, and gave the command of that spot to Qasim K. in order that he might, subdue the refractory spirits there and construct a bridge."\(^4\) Akbar received the news of the completion of this "excellent bridge over the great and turbulent river Indus"\(^5\) when he was near

\(^{2}\) Monserrate, p. 103.

\(^{3}\) Monserrate, pp. 104, 108 and 110.

\(^{4}\) AN, III, p. 523. Farooque, perhaps could not follow the language as he writes "On the same march Akbar ordered the building of a bridge over the Indus and Kabul rivers". This bridge was not constructed over the Indus and the Kabul rivers, but was built on the Indus, below its confluence with Kabul.

\(^{5}\) AN, III, p. 545.
Bigram. Akbar crossed the Indus through this newly constructed bridge, on his return journey from Kabul. 278

On two more occasions, Akbar crossed the Indus by this bridge in 1589. Once while going to Kabul from Kashmir 279 and again on his return journey from Kabul 280 while going towards Lahore. But when Jahangir was going to Kabul he did not find this bridge though he found that "The water of the Nilab (Indus) was low." 281 A bridge of eighteen boats was made to cross the river. 282 So either the bridge, which was constructed by Qasim K. was weak and did not survive till 1607 the year Jahangir went to Kabul or it was a semi permanent bridge.

There is one more reference to this bridge on Indus as Abul Fazl mentions that "Qasim K. was sent on to look after the bridging of the Indus." 283 This bridge was, however, as good as a permanent wooden bridge. The wooden bridges of Kashmir have been referred to by Abul Fazl and Jahangir. Abul Fazl mentions that Akbar, while going to Kabul from Kashmir crossed the Kishan Ganga by a bridge. 284

278 AN, III, p. 545.
279 Ibid., III, p. 855.
280 Ibid., p. 867.
282 Ibid.
283 AN, III, p. 851.
284 Ibid.
This bridge on the Kishan Ganga was also found by Jahangir, while he was going to Kashmir. He mentions "There was an old bridge over this river, 54 yards long and 1½ yards wide which footmen crossed by." Jahangir must have found it in bad shape or too narrow for this purpose, so he gave orders for the preparation of a parallel bridge 53 yards long and 3 yards broad. It is not clear about these bridges on the Kishan Ganga, whether they were of stones or of wood. Possibly the bridge which was used by Akbar, 32 years ago, had stone pillars since it lasted for so long.

Close to the Kishan Ganga, on the Nain Sukh (Kumar) river there were two small bridges when Jahangir crossed it. Jahangir writes "As at this place it forms two branches, they had according to orders prepared two wooden bridges for the crossing of the victorious army, one 18 cubits and the other 14 cubits in length, with a breadth each of 5 cubits." Fortunately Jahangir throws some light on the technique of bridge making of the region. He writes, "The way in which they make bridges in this country is to throw pine-trees on the surface of the water and fasten the two ends strongly to rock, and having thrown on these, thick planks of woods, make them firm with pegs and ropes, and

286 Ibid.
287 One cubit is equal to the length of the arm from the elbow to the top of the middle finger from 18 to 22 inches.
these, with a little repair, last for years."289 Obviously
this technique of bridge making was not suitable for the
broad rivers in the plains290 such as the Punjab rivers.
Apart from these bridges, as mentioned earlier, Jahangir also
saw wooden bridges in Srinagar.

Unlike stone bridges, wooden bridges were far more
useful for the travellers, as they were constructed on fairly
important rivers like the Indus, the Kishan Ganga and the
Nain Sukh etc. However, all these bridges were constructed
on rivers in the hilly regions, where rivers were not broad
and were located at places where the terrain was stony,
river crosses were more or less permanent and water was
swift but not deep.

**Rope Bridges**: There were rope bridges in Kashmir, and
probably also in the other hilly areas of the region. Jahangir,
though refers to only one bridge of this kind in the
Kishtwar region at Bhandarkot,291 but certainly there must
have been other rope bridges in Kashmir and elsewhere. These
bridges according to Jahangir were used in those areas where
crossing the river was difficult, and hence, "with a view
to coming and going of people on foot, they attach strong
ropes and place planks of the width of a cubit between two

ropes and fasten one rope's end to the top of the hilly and the other on the other side of the water." He further writes that, "they attach two other ropes agaz higher than those, that foot passengers may place their feet on the planks and taking hold of the upper ropes, may descend from the top of the hill to the bottom, and so cross the river. This bridge they call zampa, in the language of the people of the hilly country." Jahangir also found rope bridge on the rivers Maru and Chenab.

It is clear from the above descriptions that rope bridges were not meant for any other use but to carry foot-passengers. Obviously, the use of these bridges was restricted to that hilly terrain where any other type of travelling was not possible as the movement through these bridges was not only time consuming but also dangerous.

3.3.1.2 Temporary Bridges (Pontoons)

Since permanent bridging of the major rivers of the region was not possible, as discussed in the previous section, the early Mughals used to cross these rivers by fords or ferries. However, after they consolidated their empire they started making temporary bridges or boat bridges, on the rivers of the Punjab. There are many references to these boat bridges or Pontoons in the contemporary sources.

292 T.J., II, p. 137.
293 Ibid.
Babar was really impressed by the skill of bridge making of Mir Muhummad, the raftman who built the first-boat bridge over the Ganges, near Qanuj. He refers to the bridge in these words "Some of the braves went up and down the river and took boats by force (for the bridge), bringing in 30 or 40 large and small Mir Muhummad the raftsmen was sent to find a place convenient for making a bridge and to collect requisites for making it." 294 This bridge took nearly fourteen days for completion, may be due to the absence of required material for construction, lack of skill and above all the battle, which was going on near the place where the bridge was being made. However, after the completion of the bridge Mir Muhummad "was awarded for the excellent bridge he made over the river." 295

Humayun is said to have introduced various innovations in the technique of constructing boat-bridges, including a movable bridge made of several boats joined together, with iron nails. 296 This bridge could easily be broken down into its components, its boats could be put to their ordinary use and then reassembled when required. Camels and horses, as well as men, were able to cross rivers on such bridges. 297

The technique of bridging the rivers with boats deve-

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294 BN, p. 599.
295 Ibid., pp. 632-3.
296 A.K.M. Farooque, p. 41.
loped significantly during the period of Akbar. Mughal engineers were so good in making pontoon bridges that they bridged Ganges near Manikpur in 1566, only in one day when Akbar was going from Jaunpur to Agra. It seems that the sight of an army passing through the boat-bridge was a fascinating one, as Abul Fazl, praises Akbar for the arrangements and the systematic crossing of the Chenab by a boat bridge near Ciniot in 1579. According to Abul Fazl, "How could so numerous an army have marched if he had not been there to guide it ... Or shall I describe the completion of the bridge and the adornment (ain) of the boats?"

Not only Abul Fazl, but Monserrate also was very impressed by the technique of bridge making of the Mughal engineers as he mentions in his travel account, "The king overcame the difficulty and danger of constructing bridges; for if these are built over a broad river-bed they are apt to be swept away by the force of the current, and hence to bring disaster upon an army crossing them." After discussing the possible dangers of crossing the river through boat-bridges he further describes the technique of boat-bridge making in these words, "It is the custom in India to make temporary bridges of boats, which are tied together only by grass ropes. Over these boats is laid a road way made of branches of trees, bushes and hay."}

\[298\] AN, II, p. 399.
\[299\] Ibid., III, p. 341.
\[300\] Monserrate, p. 81.
\[301\] Ibid.
Like Abul Fazl, Monserrate also praises Akbar for the disciplined and successful crossing of the river through boat bridge by his army. Monserrate describes it in these words, "The king however, gave orders that care should be taken to see that only one type of troops or transport should approach the bridge at a time; and that the cavalry, the infantry, the camels, the other baggage animals, the blocks and herds, should pass over both separately and in single fill, so that if a bridge parted, the river should take no great toll of men or supplies."\textsuperscript{302} To cheque the crowding Monserrate further writes "a small block-house was set up and occupied by the Kings officers,\textsuperscript{303} who took care that a large number should not carelessly crowd the bridge at one and the same time, and so sink the boats."\textsuperscript{304}

There are numerous references to the construction of boat-bridges, over various rivers of the Indus system, in Punjab at the time of Akbar's visits to those areas. In 1578, when Akbar visited Punjab various rivers were crossed by these bridges. The Sutlej was crossed by a bridge made in the neighbourhood of the Lakhi Qiyampur.\textsuperscript{305} Bridges were

\textsuperscript{302} Monserrate, p. 81.

\textsuperscript{303} Bernier, a hundred years after Monserrate, saw a boat bridge constructed in much the same way. He deemed its builders tolerably skilled and the bridge useful, but did not find the army as well organised as described by Monserrate, Bunier, p. 380.

\textsuperscript{304} Monserrate, p. 81.

\textsuperscript{305} AN, III, p. 335.
also made over the Ravi at Khanpur\(^{306}\) over the chenals near Ciniot.\(^{307}\) Akbar went for hunting and crossed the Bihat, but without any bridge as the army remained on the other side of the river. When Akbar was returning from Punjab, bridges were made over the Chenab near the town of Kah ur,\(^{308}\) over the Ravi near Kalanur,\(^{309}\) and, over the Beas near Khokhrowal.\(^{310}\)

The rivers of Punjab were crossed by the boat-bridges during Akbar's expedition to Kabul in 1581. Boat bridges were made over the Sutlej at Maciwara,\(^{311}\) over the Beas between Khokowal and Kanwahan,\(^{312}\) over the Ravi at Kalanur,\(^{313}\) over the Bihat between Jhelum ferry and Rasulpur.\(^{314}\) It has already been mentioned that due to the vagueness of language, it is rather difficult to ascertain the type of bridge made over the Indus, but certainly, it was not a temporary boat bridge. While returning from Kabul all these rivers were crossed over by a boat bridge, except the Ravi- which was

\(^{306}\) AN, III, p. 337.
\(^{307}\) Ibid., p. 341.
\(^{308}\) Ibid.
\(^{309}\) Ibid.
\(^{310}\) Ibid.
\(^{311}\) Ibid., p. 509.
\(^{312}\) Ibid., p. 511.
\(^{313}\) Ibid., p. 513.
\(^{314}\) Ibid.
fordable at that time. The bridge was constructed over the Bihat at Rasulpur. Akbar crossed the Chenab by a bridge in the neighbourhood of Hailan at the ferry of Jugali. The Beas was also crossed by a bridge and so was the Sutlej.

The boat bridges are again referred to in the account of Akbar's expedition to Punjab in 1585. The Sutlej was crossed by a bridge at Madiwara. A bridge was made over the Beas at Jalalabad and the army crossed the river. The Chenab was crossed over by a bridge in the territory of Parsarur (Pasrur). The Bihat was also crossed by a bridge but the side of the bridge has not been mentioned by Abul Fazl. Akbar spent three months and twelve days in Attock-Benaras but did not cross the Indus. On his return journey, however, he crossed the Jhelum by a bridge and also Chenab at "Shop-keepers' ferry near Kanja by a bridge while re-

315 AN, III, p. 546. It is interesting to note that the Ravi was fordable during the last quarter of the year.
316 AN, III, p. 545.
317 Ibid., pp. 545-6.
318 Ibid., p. 546.
319 Ibid.
320 Ibid., p. 706.
321 Ibid.
322 Ibid., p. 708.
323 Ibid.
324 Ibid., p. 744.
turning from Kabul, in 1589 Akbar's army crossed the Jhelum and the Chinab by boat-bridge near Rasulpur \textsuperscript{325} and Banikab.

Unlike Akbar Nama, there is no reference to boat bridges in Tuzuk-i-Jahangiri, possibly due to the fact that at that time they became very common. However, due to technological constraints these boat-bridges remained the most popular way of crossing these mighty rivers otherwise difficult to bridge during this period.

3.3.2 Roads

There is hardly any information available regarding the technology of road construction in Medieval India. Possibly, there were only few metalled roads so it is likely that the chroniclers and travellers did not give any attention to the technology involved in their construction. The building of highways was, however, an arduous task during this period since road technology was not much developed.

Very little is known about the road making methods in India during the Sultanate period. Though there are many references to the cutting of forests, the making of new roads, clearing the roads of robbers and rebels, but these references to administrative measures throw little light on road making techniques. Since references to building act-

\textsuperscript{325} AN, III, p. 869.
\textsuperscript{326} Ibid., p. 870.
vities and to the public works departments are frequent, it is reasonable to assume that methods similar to those of the ancient period were being used. Some cities and towns could well have paved streets. 327

The road-building and other similar activities were more planned and supervised by a public works department under the Mughals. Whenever the emperor started on a journey, campaign or hunt, hundreds of sappers and labourers would be sent in advance to repair and improve the roads. In case of mountainous terrain, these people had to work very hard to level the road, clear the obstruction and make the way fit for the royal march. Monserrate was impressed by the work of the organisation responsible for the construction of roads and bridges, under the charge of Muhammad Qasim Khan Mir Bahr. Qasim Khan was initially sent to level the road upto the Indus 328 from Rohtas. Then he was given a more difficult job "to make the Khaiber and the road to Kabul passable for carriages. In a short time he accomplished this." 329

Important roads and highways may have been well maintained but lesser routes were repaired only before the march of the emperor. This obviously made the work of the advance party arduous and difficult. As the emperors did not always follow well known routes, new roads and routes were built and connected to existing roads.

328 AN. III, p. 709.
329 Ibid.
North-western India, the region under study, is generally hilly. The terrain in the mountainous regions is very rugged. Mughal technicians and road builders did their best to overcome these physical obstructions, but in the absence of a scientific knowledge of road building, of proper material and tools, their methods changed little from the times of the Delhi Sultans or even of an earlier period.

As mentioned earlier, the information on the road building techniques used by the early Mughals is almost non-existent. However, some idea about the road building activity and the techniques used in this period may be formed from the descriptions of the marches of the kings in different parts of the region. For instance, Kashmir which was a favorite summer resort of the Mughals had many roads, but they were all difficult to travel. The Pir Panjal route, perhaps the easiest, was travelled by Akbar twice.\(^3\) On his first visit, in 1589, "three thousand stone cutters, mountain miners and splitters of rocks, and 2000 beldars (diggers) were sent off under Qasim Khan. That they might level ups and downs of the road."\(^4\)

Although the work done by the men of Qasim Khan was highly appreciated, still the route was not easy to travel and Akbar felt the difficulty of the road. Abul Fazl mentions that "as the ladies were sent for... an order was issued that the officers who were in attendance on H.M. should sta-

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330 \textit{Ain}, II, p. 352.
331 \textit{AN}, III, p. 817.
tion experienced men at each stage and that every stage between Bhimbhar and Hirpur should be assigned to one of the officers, so that tents, fuel forage and food should be in readiness and that the ladies should not suffer any inconvenience. 332

The Pir Panjal route, though very important during the times of Akbar and Jahangir, deteriorated in its condition due to lack of proper and constant maintenance. Hence when Jahangir planned a visit to Kashmir, he "sent off Nuru-d-din Quli to hasten on before, to repair as far as possible the ups and downs of Punch route to it, and prepare it, so that the passage of ladden beasts over difficult hilltops might be accomplished with ease, and that the men should not undergo labour and hardship." 333 Like Akbar, Jahangir also despatched a "Large number of artificers, such as stone-cutters carpenters, spadesmen etc," 334 to make the road usable.

Though, Jahangir was informed by Nuru-d-din Quli that "he had repaired the Punch road, and levelled the defiles as far as possible" 335 the King could not use the route as the "snow fell for some days and nights, and lay on the Kotals to the depth of three cubits." 336 Instead of the Pir Panjal

334 Ibid., p. 98.
335 Ibid., p. 121.
336 Ibid.
route, Jahangir travelled through Pakli or Jhelum gorge route which was free from snow. He travelled through this route in his return journey and gave orders "that from Kashmir to the end of the hilly country building should be erected at each stage" \textsuperscript{337} for the accommodation of the king and the ladies.

There are also references to the repair work done on the Pakli road, which was one of the most important gateways to Kashmir. This route was used both by Akbar and Jahangir. Abul Fazl mentions that, "Hashim Khan the son of Qasim Khan, was sent off to put to right the Paki road, as H.M. intended to return by that way. Many stone-breakers and diggers accompanied him." \textsuperscript{338} This route was difficult, though it was low lying and generally free from snow.

These scanty references about road making and repairing give us a vague idea about the prevalent techniques of road building in difficult mountainous terrains. In fact we have seen that thousands of labourers, stone and wood cutters, mountain miners and splitters of rocks and diggers were employed to clear the roads and to make them fit for the imperial travel. The Mughals had the knowledge of explosive which they used in many sieges and campaigns which perhaps a small opening, path, or road was blasted out. But there is no reference to such measures for the construction and levelling of the roads. Perhaps explosives were used only for military

\textsuperscript{337} T.J., II, p. 178.

\textsuperscript{338} AN, III, p. 835.
purposes and not generally for road building. "The tree covered areas, wood-cutter cleared the live of road, while sappers and stone-cutters cleared stony ground. Probably some sort of rammer was used to level off the surface." 339

There is no reference to any systematic survey by the public works department in the areas, where the road construction was proposed. But the minute details with which these routes have been described by Abul Fazl and Jahangir prompt us to assume that records of surveys and land measurements, made before or during the imperial tour or campaigns, were utilized by the public works departments on such occasions.

3.3.3 Means of Transport

Travelling, during the period under study, was a difficult task due to the absence of good roads, bridged rivers and to the paucity of developed means of transport. In fact means of transport played a very significant role in determining the extent and volume of traffic on land. Human carriers, beasts of burden and wheeled traffic were the most prevalent means of transport both for short as well as long distance land travel. Water transport facilities were provided by boats on the rivers and small sailing ships in the coastal regions.

3.3.3.1 Means of Land Transport

The technology of manufacturing of vehicles was obviously

less developed during the sixteenth and seventeenth centuries as compared to modern times. Carts could be used in a level country, but due to unbridged rivers and mountainous terrain, bulk of the heavy traffic was moved by means of pack animals. Elephants, camels, horses, bullocks, bullock-carts, mules and litters were the usual means of land transportation during the period under study. 340

The use of elephants as a means of conveyance was reserved for the sovereign or for those who were granted his permission to do so. Moreover, the purchase and the maintenance of elephants was a costly affair as the price of an elephant varied from, "a lakh to one hundred rupees." 341 But elephants worth five thousand and ten thousand rupees were also pretty common. 342 The Mughals used them on all their tours and campaigns. The ladies of the imperial household were carried in a crossed litter, called imari which was set on an elephant back. Imari had the facilities of a small coach and resembled either a small house, or a wooden tower and was spacious enough to sleep in with comfort. Akbar is said to have invented a large cart, which was drawn by one elephant. It was spacious enough to hold several bath rooms, and thus serve as a travelling bath. 343 But historians subsequent to Abul

340 H.K. Naqvi, p. 71.
341 Ain, I, p. 124.
342 Ibid., p. 125.
343 Ibid., p. 285.
Fazl do not mention this cart. 344

Camels were used both for personal conveyance and transportation of goods. There are several stray references in the contemporary literature to camels being employed for personal transport specially where the travellers were pressed for time because Jammuaza, the she-camel, excels in swiftness of speed. 345 Camels used as a beast of burden could carry ten maunds of weight on an average. They also bore imaris and mihafs, 346 a type of litter much resembling the imari. Camels were, of course, also used in the desert areas, as they can endure great hardship and live without water for a long time. 347 According to Abul Fazl the swiftest camels were those of Ajmer. The best for carrying burden were bred in Thatta. 348

The use of horses appears to have been far more common in journeys undertaken by individuals. The horses were being used by the nobility as well as by common people in their journeys. These horses were imported in large numbers. According to Ain, " Merchants bring to court good horses from

345 H.K. Naqvi, p. 71.
347 Abul Fazl provides a detail account of camels, their stables, food, hayess, ranks etc. and mentions that camels were numerous in Rajasthan area. Regarding Sind he says that camels are " abundance; many inhabitants own ten thousand camels and upward."
348 Ain, I, p. 151.
Iraqi-Arab and Iraqi-Ajam, from Turkey, Turkestan, Badakhshan, Sherwan, Kirghiz, Tibet, Kashmir and other countries. Among those bred in India the horses from Cutch were the best and could be compared to those obtained from Arabia. The price of different types of horses varied from 500 muhur to 2 rupees.

The cavalry was the most important part of the Mughal army, so encouragement was given to horse dealers by establishing sarais for them and for the horses. Horses were also used for the postal service. According to Abul Fazl, some of the horses were able to cover a distance of 50 to 100 Kroh (Kos) in a day. Horses were also at times harnessed in wheeled carriages called ghur bahal, but they were not much in vogue except in Gujarat.

Mules and asses were cheaper than horses and were more suitable to carry goods. According to Abul Fazl: "The Mule possesses the strength of a horse and the patience of an ass... It never forgets the road which it has once travelled."

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349 Ain I, p. 140.
350 Ibid.
351 Ibid.
352 Ibid., p. 150.
353 Ibid., p. 141.
354 Ibid., p. 146.
355 H.K. Naqvi, p. 72.
356 Ain I, p. 160.
that, "It is the best animal for carrying burdens and traveling over uneven ground, and it has a very soft step." 357

In the mountainous regions of north-west India, Mules were frequently used." 358 Mules were chiefly imported from Iraq-i-Arab and Iraq-i-Ajam. 359 In India they were only bred in Pakli, and its neighbourhood. 360 Superior mules were often sold at Rs. 1,000 per head. 361 Asses were used for carrying burdens and fetching water. 362

Bullocks, however, were by far the most convenient and important means of transport during the period under study. They were much suited to carry heavy load or drive wheeled carriages. By virtue of their adaptability to long distances travel over paved, unpaved or uneven roads, and, also due to their numerical strength throughout the country, they may be graded higher than other animals as a beast of burden and means of transport during the early Mughal period.

Bullocks were also used as pack animals because they could carry, on an average, four maunds of weight. 363 They

357 Ain, I, p. 160.
358 Jauhar, pp. 62, 69.
360 Ibid., p. 160.
361 Ibid., p. 161.
362 Ibid., p. 162.
363 H.K. Naqvi, p. 73.
were also used for riding. The grain sellers, known as banjaras used the bullocks extensively. Some of them owned about 1,000 bullocks each. These banjaras supplied grains and provisions to marching armies. Banjaras were given encouragement and money by Jahangir to accompany the imperial army to Qandahar with provisions. 364

Though cattle of various kind was found throughout the country but Gujarati bullocks were best. 365 They are reported to have travelled 80 Kos (120 miles) in 24 hours, and surpassed even swift horses. 366 Oxen were used for travel in rough country, both on account of pebbles and because of the heat. 367 Ox driven wagons were often employed for conveying goods. These were of various sizes. In the larger ones more than a pair of bullocks were harnessed; those with three pairs had a capacity of forty-four maunds, but there were still larger varieties which could carry as many as eighty-one maunds of weight. 368 Palkis or Palanquins though mainly used for ladies were also occasionally used by old and infirm men. These were carried on the shoulders of four bearers, generally called Kahars, but during long journeys it must have been a common sight to see large number of Kahars

366 Ibid.
367 Foster, Early Travels, p. 104.
368 H.K. Naqvi, p. 74.
waiting for their turn. Larger palkis were carried by six or eight kahars, while the smaller ones, known as adis, were carried by just two men. The kahars or palki bearers, according to Abul Fazl, "Form a class of foot servants peculiar to India with their, palki, singhasans, chandols, and dulis, they walk, so evenly that the man inside is not inconvenienced by any jolting.... At court, several thousands of them are kept."^369

With the help of this general description of the means of land transport, it is not difficult to surmise that in different areas within this region, different means of transport might have been used by different sections of society according to their needs and capacity. However, with the given level of technological development, the means of transport were not suitable to overcome physical constraints of the region and thus land transport was generally difficult and cumbersome.

3.3.3.2 Means of Water Transport

In the absence of matted roads during the period under study, it was difficult in rainy season for wheeled carts, animals or even pedestrians to move. Although roads were not completely impassable but the journeys were difficult and slow. So during monsoon seasons, when roads and routes were inundated or even washed away travel by boats

^369 Ain, I, p. 264.
along the rivers was the only convenient means of transport.

The Mughal navy was not strong, but they had a well organised admiralty in the times of Akbar. About the utility of admiralty Abul Fazl writes, "This department is of great use for the successful operation of the army, and for the benefit of the country in general, it furnishes means of obtaining things of value." 370 Akbar, tried to improve the water transport by improving harbours and appointing experienced men as harbour-masters. Sea men, too were selected according to their ability and experience. 371

Along the coasts of the ocean, large ships were built, which were suitable for voyages. Large ships were also built at Allahabad and Lahore 372 from where they were sent to the coast. "In Kashmir, a model of a ship was made which was much admired." 373 Early in the seventeenth century (1616-1619) Terry observed that the Mughal sea-going ships were huge, weighed at least fourteen to sixteen hundred and carried many guns." 374 But from the point of view of warfare they were not strong enough to defend themselves. 375

370 Ain, I, p. 289.
371 Ibid., pp. 289-91.
372 Ibid., p. 290.
373 Ibid.
374 Foster, Early Travels, p. 301.
375 Ibid.
Manrique rightly observed that Mughal warships were more suited to be used on placid rivers than on high sea.\textsuperscript{376}

Though river-borne trade flourished before the advent of the Mughals but the admiralty was not systematically organised until Akbar's reign. Boats were constructed on the orders of the government to carry both passengers and goods.\textsuperscript{377} Ships were used throughout the country, where rivers were navigable, but in Bengal, Kashmir and Thatta they were the pivot of all commerce. Strong boats were constructed which were capable of carrying elephants. Other types of boats called ghicabs, were made "in such a manner as to be of use in sieges and for the conquest of strong forts.\textsuperscript{378}

In North-west India, due to the navigability of Indus and the large tributaries, there were strong intra-regional communication links through these rivers. Though, sailing down the Indus was easier and took lesser time than sailing up the river, still the flow of traffic on the river was continuous. The region of Sind was closely connected with Punjab through the Indus and its tributaries. It seems that the flow of traffic through the Indus was relatively less when compared to the Ganges. This was perhaps due to the infertile land and low density of population in the region. Nevertheless, the utility of the Indus river to the Sind region was such that nearly all important settlements were lo-

\textsuperscript{376} F.S. Manrique, \textit{Travels}, II, Hakluyt Society, 1927, p.278.  
\textsuperscript{377} A.K.M. Farooque, p. 117.  
\textsuperscript{378} \textit{Ain, I}, p. 289.
cated along it.

The rivers of Punjab facilitated the traffic at both ends. The town of Lahore, located on the bank of the Ravi, was linked with Kashmir and Multan and further down with Bhakkar/Sukkar and Thatta by the rivers of the Indus system. De Laet found many boats of 60 tons capacity, playing between Lahore and the trading centre of Thatta in Sind after the rainy season. Lahore-Thatta voyage used to take about 40 days.379 In the Thatta region, according to Ain, "The means of locomotion were the boats of which there were many kinds, large and small to the number 40,000."380 In Kashmir too, goods and merchandise were transported by boats.381

With the above discussion, it is clear that the means of transport, as one of the technological determinants of regional linkages, might have played a very crucial role in determining the type and extent of the movement of people, goods and ideas within and outside this region. During the latter Mughal period, with the change in the mode of transport and with the development of ships and naval power, the whole concept of travel and trade changed and many of the physical determinants like mountain passes and river fords became less important.

379 De Laet, p. 5.
381 Ibid., p. 354.
3.4 CONCLUSIONS

While describing the linkages as regional imperatives, some significant factors which were influencing their evolution became apparent and may be summed up as follows:

i) The regions suitable for settled agriculture, with a sound and strong economic base, were the most economically prosperous regions of North-West India during the period of Early Mughals. In these areas not only agricultural production was more but they were the producers of some of the most important industrial goods. The suba of Lahor, for instance was not only producing wheat, millet, cotton, indigo, sugarcane, poppy etc. in large quantities but was also a leading producer of cotton textile, silk products, chikan work and metal industries. The Multan region (which possessed fertile lands in lesser abundance than Lahor) was producing wheat, millet, cotton, indigo, sugarcane and poppy and had been famous for its cotton textiles. The Thatta region, which was attached to the suba of Multan, was producing poppy and Shali rice in large quantities. It was also famous for its cotton textiles and silk products. The Kabul region due to its limited productive lands was producing very little of foodgrains like small black coloured wheat. However to compensate this it was producing fruits in large quantities. It was also famous for its woollens which were in great demand. Gandahar was producing foodgrains in a very limited quantity due to lack of fertile lands suitable for the produc-
tion of foodgrains but it was producing fruits in large quantities. The valley of Kashmir, with fertile soil, and excellent climate was producing rice in large quantity. Kashmir region was also the chief producer of saffron and mulberry. The fruits of Kashmir were in great demand in different part of the country. Kashmir, due to the encouragement of the Mughal Kings, was able to increase the production of its woollen shawls, silk industry, wood and ivory work. The chief towns/cities of these regions became the major centres of the trade and commerce, during the period under study.

ii) While discussing the significant political developments of the period, it became apparent that North-West India, which remained in a politically fluid condition during the first three quarters of sixteenth century, got stabilized during the second half of the Akbar's reign. Akbar was well aware of the strategic location of the region and tried to strengthen the Mughal defence by annexing Kabul in 1585, Kashmir in 1589, Sind in 1591 and Qandahar and Baluchistan in 1595 to the Mughal Empire. The political stability provided by Akbar and Jahangir helped in the development of inter-regional linkages in North-West India and with the surrounding regions.

iii) It was found that there came a qualitative change in the socio-cultural atmosphere of the country during the period of the Early Mughals. The socio-cultural
synthesis of the various communities living in the country was the result of Akbar's deeprooted secular policies which united the Hindus and Muslims of the country. His benevolent attitude towards his opponents and parental love towards his subjects without distinction of sect and creed, developed confidence among different communities. Jahangir also followed the same policy with success. Hence, the conditions for socio-cultural inter-action among the people belonging to different regions, religious, linguistic groups, castes and creeds etc., were perfect during the later half of the period under study. This obviously provided a significant boost to the strength of the inter-regional linkages in the country in general and the region in particular.

iv) While discussing the physical determinents of regional linkages, it was observed that in the mountainous regions the passes had played a desisive role in providing natural passages connecting two regions. After identifying plotting and describing the known passes of the region it became apparent that there was a significant shift in the relative importance and frequency of use of the passes during the period under study. For instance the passes through the Sulaiman ranges which were used very frequently during the early medieval period lost their significance during the period under study.

v) The location and role of river fords has also been established as it was found that the journies were always made through the plains of Indus keeping in mind the
season of the travel. All the travellers, in the absence of the bridges over the major rivers of Punjab were quite conscious of the unfordable nature of these rivers during the rainy seasons. Thus in the plain regions of Punjab and Sind river fords invariably determined human movement and thus the regional linkages in the final analysis.

vi) While discussing the technological determinants, it was found that during the period of the Early Mughals the technology of construction of permanent bridges over the major rivers was not developed. Semi-permanent wooden bridges, however, were made on some of the major rivers of Punjab during the reigns of Akbar and Jahangir, after the consolidation of Mughal power in the country. This is a pointer to the fact that it was not only a question of lack of technological knowhow of bridge making but perhaps the earlier kings were not really interested in opening the gates of India to outsiders, by making the bridges when the North-West was not in their control. Even during the times of Akbar and Jahangir the temporary boat bridges were being constructed at the time of the crossing of the river. The technique of making pantoons was perfected by Akbar who took personal interest in their making.

vii) Road-building and other similar activities were well planned and supervised by a public works department under the Mughals. Important roads and high ways were well maintained but lesser routes were repaired only before the
march of the emperor. As the emperors did not always follow well known routes, new roads and routes were built and connected to existing roads. Mughal technicians and road builders, though did their best to over come the physical obstruction posed by the hilly nature of the North-West India, but, in the absence of the scientific knowledge of the road building, of proper materials and tools, their methods changed little from the times of the Delhi Sultans.

viii) It was also observed that the means of transport played a very significant role in determining the extent and volume of traffic on land. The use of carts, though was very common, but due to unbridged rivers in the plain regions and the rugged terrain in the hilly regions, was limited to short distance travels. Bulk of long distance traffic was moved by means of pack animals - elephants, camels, horses, bullocks and mules. During the rainy season in the plain areas of Punjab and Sind, when roads and routes were inundated or even washed away, travel by boats along the rivers was the only convenient means of transport. The region of Sind was closely connected with Punjab through the Indus and its tributaries. The town of Lahor, located on the bank of the Ravi, was linked by the rivers of the Indus system with Kashmir and Multan and further down with Bhakkar/Sukkar and Thatta.