PART II

ECONOMIC CONDITIONS
To begin with we must understand that the economic conditions of the 7th century A.D. did not differ much from the Gupta period. The Guptas inherited a well developed economic system with its multifarious activities from the Maurya and post Maurya age. Such economic activities were greatly developed during the peaceful and prosperous reigns of the imperial Guptas. The Gupta empire collapsed during the 6th century A.D., but the States which came after continued the economic set up of the Guptas.¹

Kantalya's Arthashastra deals at length with the agricultural products, various industries and items of trade and commerce along with their different aspects of the Mauryan times. The Gupta inscriptions and literature indicate that these economic aspects continued in the developed form in the Gupta era.²

The testimonies of Huen Tseng and Baná along with the evidence of contemporary inscriptions prove that the economic progress during this period was maintained with only small changes here and there.³

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CHAPTER VII
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The seasons were particularly hot. The country was well-watered and fertile. It was bounded on the north by a chain of mountains and hills, where the land was dry and salty. The east was a well-watered plain fruitfully cultivated. The southern part was rich woodland. The western side was dry and stony. This description holds good even to-day.

Since times immemorial the economic structure of India has rested on

b. ownership:

land. Literary and epigraphic evidences describe different types of lands, their products, their ownership, the taxes upon them, their measurements and ways and means of selling and purchasing land. Huien Tsang and Ba'na corroborate most of the facts. Originally all the land possibly belonged to the state, but some portions of land or some villages were donated to Brähmins, scholars or religious institutions. The state gave up all rights of ownership and of taxation upon such lands or villages. It was duty of the state to protect them from the harassment of Chāta-Bhāṭa (irregular and regular soldiers). Harsha offered to give 80 villages to a learned person named Jayamāna in Orissa. Vaitraka inscriptions, the inscriptions of Harsha and of Bhāskaravarmen and Ājatārāṇī refer to such grants of lands. The remaining land belonging to the state was called the crown land.
The Damodarapura grants (6th century A.D.) mention Khila (untilled or fallow land) and Vastu land (set apart for building purposes only).  

The Mālyā grant of Bharasena II (671–72 A.D.) refers to the type of land called 'pādraka'. Fleet interprets it as a village land. It may mean farm land (Kanetra) or a grazing place.

The grants of land were made on some conditions and on the basis of certain systems of land tenure. They were mainly (i) The Bhūmicchidra or Nyāya (ii) Māvi-Dharma (iii) Aprada Dharma and (iv) Tribhoga. The Bhūmicchidra system had been well known from Kautilya's times. The Mālyā grant of Bharasena II (671–72 A.D.) states that the village of Antarātra was given to the Brāhmin Āndrabhūti for three generations according to the system of Nyāya (Bhūmicchidra). It was given with the rights of ādranga, sparikara, Vāta, Bhūta, Bhānya, Kiranya, ādeya and forced labour when required. The Banskherā grant of Sarīgā also mentions the term 'Nyāya' in the same sense. It may be compared to the permanent land revenue system of Lord Cornwallis. The Damodarapura grants refer to terms 'Māvidharma' and 'Aprada' – Māvi-dharma. The terms perhaps meant the land granted to one person for the duration of his life.
time only. 'Nivi' may mean untitled land. Obviously the state reserved for itself the right to take back the land once given according to these systems and could regrant it to another person. The person who received it had no right to transfer it to another person without the special sanction of the state. The Alinā copper plate of Śīlavatya VII (766-67 A.D.) mentions 'tribhoga' system which probably meant the land donated to a brāhmin, a deity or a king. The contemporary sources mention Bhūmi, Patakā, adāvṛta, Kulyavāpa, Nivartana, Hali (plough), Pitaka etc, as different land measurements.

Unfortunately contemporary authorities do not give details about their precise dimensions. It seems that Kulyavāpa was slightly larger than an acre and a Nivartana was equal to about 2½ acres. Kulyavāpa was used in Bengal. While Nivartana was in use in south Gujarat. Central Gujarat used pitaka (a basket).

The measurement of Hali (plough) was common in central India in the empire of Harsha. Bāna records how Harsha in the region of Sarasvati, bestowed upon the brāhmans a hundred villages measured by a thousand ploughs. The length of the plough is unfortunately not mentioned, although the stipulated number of plough lengths made up the length and breadth of the village. In modern times, one plough land is
equal to 50 acres. One village has roughly 5 to 10 plough land. It means that each village has 250 to 500 acres of land. The grant of Śiśāditya III (dated A.D. 666) mentions padavartas measure. The ruler granted to three brāhmins a field of 50 padavartas in a village of Saurāśṭra. One padavarta may mean one foot square as suggested by Fleet and not one square foot as supposed by Williams. Thus 50 padavartas may mean land measuring 2500 square feet (50x50) and not 50 sq. feet of land which is too small to be donated. Land measuring 50 padavartas (2500 sq. feet) is just equal to one bigha of land in modern terminology.

There were special officers appointed by the state to survey, measure and donate lands. It appears that 'Dutaka' or 'Sandhivigrahaka' was the chief officer in charge of land donations. He was assisted by 'Lekhaka' a writer or engraver. A grant of Maitraka king Śiśāditya Dharmāditya I (A.D. 608) mentions a Sandhivigrahadikrita Divirapati as the lekhaka. The grant of Dharamaśena II (A.D. 633) mentions Śāmañña (feudal king) Śiśāditya as the Dutaka. The grant of Śiśāditya III (A.D. 676) mentions Rājaputra Kharagraha as the Dutaka. The Banakhera plate (A.D. 628) and the Madhuban plate (A.D. 631) of Sārgaṇa refer to
Mahāsēmant Skandagupta as Dutaka and Iahvara and Gurajara as writers respectively. The Nidhmānpura-plate of Bhāskaravarman (A.D. 663) mentions officers like simāpradasta (possibly the officer marking the boundaries of land), a Kāyastha (scribe) and a Śassayita (officer entrusted with the execution of the charter). Just like Valабā grants the Kājatarāṅgini also refers to 'Dīvīra' and Stein translates it as a writer or a Secretary. Grants were made on certain conditions and the documents pertaining to these were safely preserved under the royal seal by the state. Huien Tsang also refers to ni-lo-pi-tu (state papers) in charge of separate officers.

B. Agricultural Products:

Huien Tsang writes, "The climate and the quality of the soil being different according to area, the produce of the land varied in character. There were people whose duty was to sow, plant and reap according to the seasons." The same authority informs us that among the products of the ground, rice and corn were most plentiful. Ginger and mustard may be named as edible herbs and plants. Like his predecessor Fa-hien Huien Tsang also states that onions and garlic were not common and very few persons ate them. The flowers and plants, the fruits and trees were of different kinds and
had distinct names. According to the testimony of Huien Tsang rice, wheat, cereals, sugar cane, oil seeds, cotton, various types of vegetables and different kinds of fruits and flowers seem to have been the main products of Northern India. It was produced in Lancham, Tekka, Jālandhara, Puryatra, Kosāmbi and Magadha. Puryatra (probably Bairat) produced a strange kind of rice which ripened after sixty days. Julien calls it a species of 'dry rice' or mountain rice. Magadha yielded a kind of rice with large grains and of extraordinary fragrance called by the people the rice of grandees. It had an exquisite taste and shining colour. Julien supposes that it was probably the rice called Vahaśāli and Sucandhika. This type is also mentioned by Kālidāsa and Bāṇa. Rice was grown in Khetaka (Kheda) region and in some parts of Gujarāt. Kashmir produced a large quantity of rice and probably it was used there as one of the articles of barter. According to Bāṇa the region of Śrāvastī also produced rice and other crops. Bengal also possibly produced rice as farming was done on an extensive scales there.

Wheat was grown extensively in various parts of India such as Tekka.
The soil of Sālawā and of Sindh was specially suitable for wheat cultivation and great quantities of winter wheat were produced in these countries. The soil in most parts of Northern India was rich and fertile and therefore they yielded good crops, Taxila, Kulata (Kulu), Nathura, Sthanesāvara, Brahmāpura, Prayāga, Kapilvastu, Benāras, Magadha, Kājughara, Kāmarūpa, dra (orissa), Sālawā, chi-ki-to (north east of Ujjain), Vallabhi, Sindh and Multān produced various crops in abundance. Nathura produced a fine species of cotton cloth. Sāna also refers to the wide use of cotton (Sādar) and other cloth. Chi-ki-to (Bundelkhand) yielded beans and barley in...
abundance. Sindh produced millet and pulses besides wheat. Various kinds of grain grew in Adyana. The fertile soil of Takshashila bore good crops. Tekka produced silk. Kullu (Kulata) had a rich vegetation and many valuable medicinal herbs because it was close to the snowy mountains.

Though Huen Tsang mentions that most places in Northern India produced rich crops, there were some regions which were not suitable for cultivation. The soil of Bharukccha (Breach) was brackish and vegetation was sparse. Salt was made by boiling sea water and the people were supported by the sea. (Perhaps by maritime trade). Surat had also saltish soil and fruits and flowers were scarce there. The original word 'a-la-ch-a' is interpreted by Beal as "surashtra", while Watters explains it as 'Surattha' (Surat). The latter interpretation seems to be correct because the land of a-la-ch-a is said to be saltish. As the sea is very near to Surat, its land could have been impregnated with salt at that time. But we cannot accept that Surashtra (Surat-Sirnar district) was brackish and fruitless. In the contrary it must have been rich in vegetation. Huen Tsang also states that Mo-hi river (mahih) is on the
west side of Su-la-ch-a. These facts help us to identify Su-la-ch-a with Surat.

Irrigation was not uncommon at that time. The Aphasad inscription of Adityasena (probably 672 A.D.) states that the queen of Adityasena got a big reservoir constructed for irrigation purposes. Maitraka inscriptions mention occasionally the donation of wells and step-wells (vâpîs). Bâna mentions the use of Persian wheels in farming. Hiuen Tsang informs us that water led from the river or from banked up lakes (reservoirs) flowed round the towns.

C. Fruits, flowers, trees and forests:

Hiuen Tsang names various types of fruits and flowers that were grown in different states of Northern India. He mentions mangoes, melons, grapes, plantains, apples, coconuts, pears, peaches, plums, nöme-granates, apricots, jujube, tamarind, akadhuka, jack-fruit, sweet oranges and wood-apples. The Chinese pilgrim refers some times to the saffron flower. He gives the names of several trees some of which have not yet been identified. He states that great forests bordered some cities and villages.

Kunach (a dependency of Kâsmir) produced Amras (mangoes), udambaras (figs), nuchas (plantains
and other fruits except grapes. The country yielded sugar-cane and flowers also. The fruits though abundant, were prized on account of their taste. The fruit trees were grown in orchards near the dwelling houses. The people of Mathura carefully cultivated the Amalaka or Amra trees (Mango) which grew there abundantly.

According to Hana the products of the Srikantha region including the Sthaviravara tract consisted of different coms, sugar cane of the Sundra variety, vines and of pomegranates. Vaidana produced grapes in abundance. Vaisali abounded in fruits and flowers and Amra fruit (mango) and the mocha (banana) were very plentiful and much prized. Undravardhana was famous for sugar canes and the panas fruit (Jack or bread fruit), it was as large as a pumpkin. Though plentiful, it was highly valued. Kamarupa produced the panasa fruit and the Na-Lo-Ki-Lo (Nârikela) coconut fruit. Though there trees were plentiful, they were considered valuable. In Udra (Orissa) every kind of fruit was grown extensively. Huen Tsang writes, "It would be difficult to name the strange shrubs and the famed flowers that grow here." Ta (Orissa) fruits were larger than those from other parts.

The same authority states that from Kashmir, pears, plums, peaches, apricots and grapes were planted here and there. Huen Tsang mentions pears,
plums and peaches rarely in his account of India. Therefore it seems that these fruit trees were not common in India. Perhaps they were imported from Kāshmir, Ibn Batutā does not mention them. Probably they were grown in the region between Kāshmir and China and not in India.

Kanisā, Udāna, Jālandhara, Matipura, Kānyakubja, Ayodhā, Prayāga, Kāṃśavārṇa, Kalinga etc. produced various fruits and flowers in abundance. While fruits and flowers were scarce in Vāryātra, Braoch and Surat. The date, the chestnut and the red and green persimmon were not known in India.

Bāna mentions various trees, plants and shrubs growing in the forests of the Vindhyās, he names trees such as banyan, bamboo, karnikar, champaka, namoru, sallaki, Nārīkela (coconut), Naga Kesāra (Harikesāra), Sarela, kurbaka, Red Asāka, Bakula, Kesāra, Tilaka, Singa, Priyangu, Kuchukund, Tamāla, Devadāru, Nāgavalli (Betal - nut), Jamura, Nimbu, Shulikadamba, Kutaja, Filu, Sharifa (asadafala), Kafala, Shefālika, Lavalilata, Lekusha and Jayafala (Jāti fala). Most of the names cannot be identified, but it is certain that some of them supplied great quantities of fruits, flowers and wood. Bāna refers to some kind of tax on the selling of fruits and other vegetable products. Some of the trees might have been good sources of income to the state as well as to the
individuals.

As already noted, Euen Tsang enumerates several fruit trees. He also refers to timber and saffron flowers. Of Mālāwā, produced the pepper tree and the perfume tree (elogetherm) from which spices and scents might have been prepared. In Kalinga there were extensive forests for some hundreds of li. Between Southern Kosala and Mahārāṣṭra there were great forests inhabited by wild beasts, yielding ample wood and animal products like hides, bones, horns etc. Forest dwellers had garden enclosures with clumps of gavedhuka, garmut, sigru, Granthinama, Suraga, Suraga, Vasigaka, Vaca and the castor plant. They grew different vegetables and medicinal herbs. The statement of Euen Tsang that in Gandhāra he saw a pippala tree over 100 feet high with wide-spread foliage affording a dense shade seems to be an exaggeration. In Ahikshatra and in Kanauj there were many woods and fountains. There were beautiful gardens. Near Kuśinagara on the western bank of the river Ajitavatī, there was a grove of śāla trees with a greenish white bark and very glossy leaves. Four of the trees were of unusual height. The Maithraka inscriptions also mention trees such as Banyan, Ankoll, Śāka, Khādir, Baduri (Berry), Salmali, Kango, Odhbara, Jāibu, Nimba, Kalāśa, Pippal, Bilva, Bamboo, Sami, Kadamba and Shirisha.
We have mention of parks and gardens.\textsuperscript{95}

Wines were prepared from the leaves of certain trees, fruits and flowers. According to Hsien Tseng there were distinctions in the use of wines and other beverages. The Kshatriyas distilled wines from vine and sugar cane, the Vaiśyas drank a strong distilled spirit. The Brāhmīnas and the Buddhist monks drank syrup of grapes and sugar cane. The mixed and low castes used any type of drink.\textsuperscript{96}

Banā also mentions 'Ullaka' a kind of drink sipped from cups, neweras brought from the king of Assām. Cups or 'Ullaka' which gave out a fragrance of sweet wine.\textsuperscript{97}

The fruits and other products of the forests described above, might have played a great role in the economic life of the age. We have no means to ascertain how much income was derived by the states and the people from these sources. But it is certain that it was fairly good.

\textbf{D. Animals and animal products:}

The contemporary evidences show that the domestication of animals was well advanced during this age. These give a hint that various animals were used for economic, military and social purposes. The hunting of wild animals was
a regular profession. The forests of the Himalayas, Kamarupa and Vindhyas abounded with elephants in those days. Some parts of Gujarat such as Rājarāpelā and Chitrānāgapura also had elephants. Konyodha and Kalings produced dark wild elephants which were capable of long journeys and were much prized by the neighboring countries. Contemporary sources occasionally mention ivory articles.

Excellent horses were bred in Kapisa. Kashmir yielded horses of the dragon stock. The horses from Tekka were greatly valued. Persian horses fetched high price in the Indian market. In paryātra (Bairat, oxen and sheep were numerous. Sindh bred, oxen, sheep, dromedaries (The Arabian camels who were comparatively small in size and had only one hump), mules and other beasts. Naturally paryātra and Sindh must have produced much wool. Nepal yielded yaks which were perhaps beasts of burden there. Farming was done with the help of oxen. Of course the cow, the buffalo, the goat and others must have been common animals. They must have formed the backbone of the village economy. Tsang and Bapa mention milk, butter, curds and ghee as common items of food of the Indians. Fish and mutton of gazelle and deer were eaten fresh or salted. Bandin describes how a deer was shot, skinned and
Lions were possibly found only in the forest of Gira (Sorath) as they are found even today. Bana mentions 'Lions' dwelling in the forest of the Himalayas also, but this is very doubtful. Other wild animals were probably found almost in all the forests of India. Bana states that hunters roamed with their traps in the forests. Skins and bones of big animals might have been used for making various articles. Garments of skin and ornaments of bones are mentioned by Hiuen Tsang and Bana. Animals such as horses, camels, mules, asses and elephants served as vehicles during this period.

IV. Mineral Products:

The mineral products seem to have increased in this period. Hiuen Tsang takes note of a number of states which produced metals like gold, silver, iron and copper. Gold and silver coins appear to be very common. Copper coins seem to be rare. Precious stones were found in some states. Salt was procured from hills as well as from the sea.

Kacisâ, Udyâna, Tekka, Kullu, Satadrû and Sindh yielded gold, silver and copper. Udyâna and Tekka also produced iron. Tekka and Kullu (Kuluta) were also famous for bell-metals. The Crystal lenses of Kullu and precious substances of Satadrû were famous. Many rare commodities from different places
were collected at Kapisā, Sthēnesāwar, Kānyakubja, and Valabhi. Suvarṇagotra in the midst of the great snowy mountains (the Himalayas) produced a superior sort of gold and hence it was called suvarṇa. This place is perhaps the savarnabha or gold-region mentioned in the Brāhat-Samhita, which Kern regards as "in all probability" a mythical land. Mathurā also yielded a superior quality of gold. Nepal produced red copper and it used copper coins as the medium of exchange. Atali produced valuable gems and precious substances in great quantity. The houses of U-Tien-lo-Chil-Lo (probably Kaccha, province of Sindh) were richly ornamented and many possessed rare and costly substances. The country of Langala (subject to Persia) abounded in precious gems and stones.

From the above discussion it seems that most of the places in North-western India were rich in mineral products. Precious metals and rare commodities were perhaps transported from these regions to other parts of India. The states of old India seem to have been rich in agricultural crops, while the eastern and southern regions mostly abounded in forest products. Most of the states boasted of rich luxuriant vegetation and abundant fruits. The salty land of Bharukaccha, Surata, Sindh, Kaccha and Vitāśila produced salt. The first two prepared salt by boiling sea water.
a great quantity of salt of various colours such as red salt like cinnabar, white salt, black salt and rock salt. This salt was used for medicines in places far and near. 133