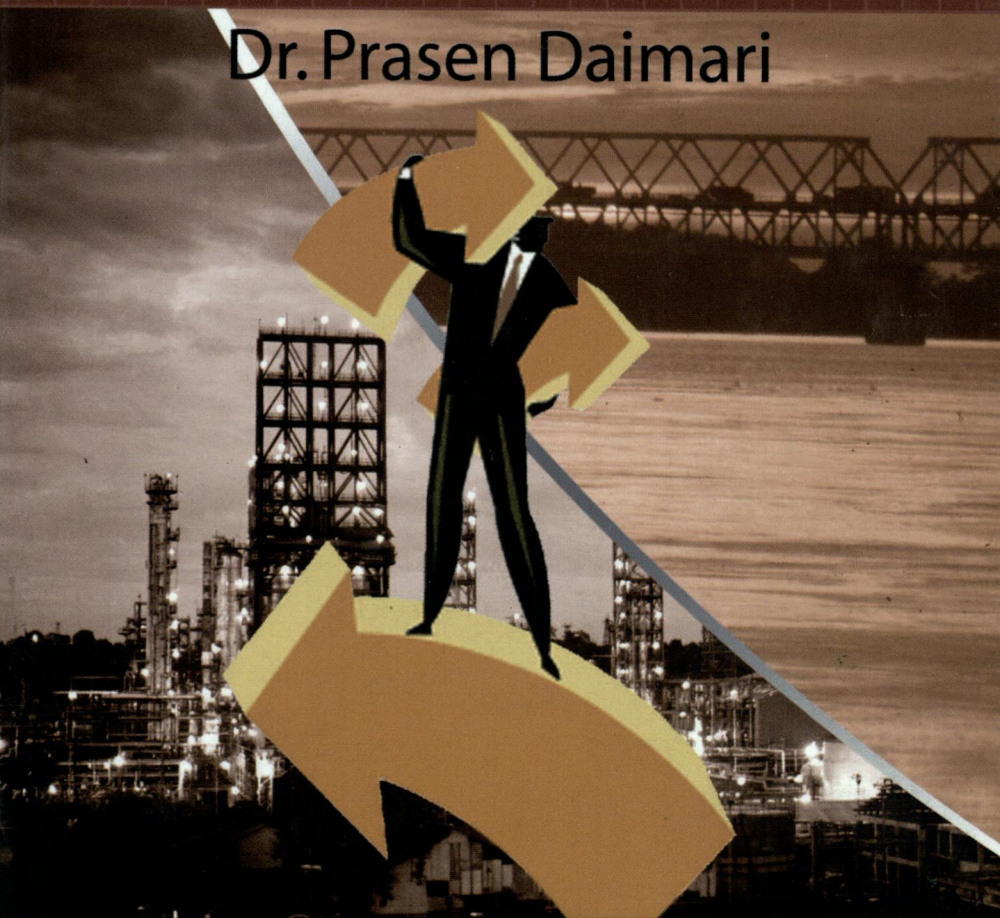


# FIVE YEAR PLANS & INDUSTRIALISATION IN ASSAM

Dr. Prasen Daimari



Assam has experienced over 50 years of Development Planning. The fundamental objective of economic planning in Assam has been to accelerate economic development of the State through optimum utilisation of its resources so that a reasonably high standard of economic well being can be attained by the masses. Another very important objective of economic planning in Assam has been to reduce the disparities in income and wealth to the minimum level.

These objectives have been sought to be obtained through development of the different sectors of the Assam's economy of which industrialization is one of them. But studies reveal that it has failed to experience desired level of development in the industrial sector. One of the reasons behind this failure is that the economic planners of Assam have failed to identify industrialization as a major priority sector. Various industrial policy formulations also have remained just in papers and lacked implementation.

It is to be noted that, effective planning for development may be possible only if there is an understanding of the mosaic of the area concerned. The mosaic of Assam is so complicated that it often misleads the planners as well as the administration whose understanding of the problems is generally influenced by observations and experiences of other not so completed regions.

This book aims to highlight the principal objectives of the different Five Year Plans and their allocation of resources, priorities as well as their achievements and failures. Further, this book has also attempted to point out as to how much of emphasis and priority that the industrial sector has received under various plan periods.



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Including this, three books authored by him are being published simultaneously by Eastern Book House Publisher in 2007. The two other books are: (i) Economic Structure of the BTAD: A Study of Udalguri Subdivision and (ii) Economic Development of Assam: Problems and Prospects. A few numbers of his articles have already been published in different journals.

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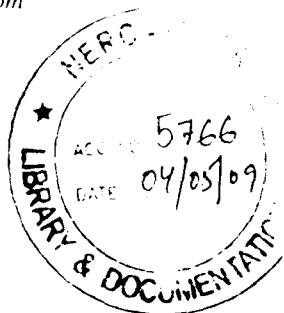
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## Chapter 1

# Pre-independence Colonial to Planned Economy

### 1. Introduction

It is difficult to deny that foundation of the modern economic system of Assam was laid during the British regime. In Assam, British rule commenced from 1826. British rulers in the early period of their rule undertook two socially beneficial measures having great economic significance. These were the suppression of slavery in 1843 and the poppy cultivation in 1860.

The establishment of a modern economy in Assam based on capitalist principles was the greatest achievement of British regimes which was possible mainly due to the development of tea plantation. Along with tea industries, a modern industrial sector grew up in Assam with the establishment of different industries like petroleum, saw mills, plywood and coal mining, etc. Besides, a modern transport and communication system was also built up during the British regime with the gradual development of river, road, and railway transports; postal and telegraphs services. All these developments ultimately led to the growth of Commercial sector in Assam.

But the agricultural sector which engaged three fourth of the total population of the State was more or less unaffected by the activities of the modern sector. Thus there was colonial pattern of development in Assam which created a dual economy - a small modern sector and a huge traditional subsistence sector existing side by side. Thus during the pre-independence period there was secular stagnation in the economy of Assam.

### 2. Agriculture in Assam during Pre-independence Period

During the British period, the principal agricultural crops of Assam were rice, mustard, pulses, Jute, cotton, sugarcane etc. With

the arrival of Muslim immigrant cultivators from East Bengal. Jute cultivation started in Assam at the beginning of the 20th Century. During this period, the cropping pattern of Assam was not at all balanced, and in respect of its diversification, it was negligible. Thus cultivation of rice covered the maximum area of the total cultivated land. In respect of trend in the sown area, it was very much irregular and fluctuating. In case of other crops, excluding Jute, increase in sown areas was minimal.

In respect of the production of principal agricultural crops during this period, there was no continuous rise in production rather it was marked by fluctuation. During the period 1923-24 to 1947-48, total growth rate of production of rice was only 13 percent. Again during the last period of nine years 1938-39 to 1947-48 the growth rate was as poor as 4 percent. Further, during the 15 year period 1923-24 to 1938-39 rape, mustard and sugarcane had a growth rate of only 3 percent. But it was the production of Jute only which could maintain an increasing trend and its total growth rate was 68 percent during this period.

Although there was fluctuation in the production and area sown in case of rice its productivity maintained a continuously raising trend during the period 1933-34 to 1947-48.

During the pre-independence period, Assam exported a good quantity of rice regularly besides meeting her own requirements. On the whole, Assam was a net exporter of food grains even after considering the large quantity of wheat import by the state.

Thus considering all these previous positions it can be concluded that during the pre-independence period, agriculture in the state was more or less stagnant, having all the traditional and orthodox approaches applied into it.

### **3. Industrialisation in Assam during Pre-independence Period**

The process of industrialisation in Assam dates back to 1830s onwards with the introduction of tea plantation. During that period,

industrial activities in Assam were centered around tea, petroleum, coal mining, cottage and village industries, etc. In spite of having huge development potential, the industrial sector in the state could not develop at a satisfactory rate due to various constraints faced by it. We will now look into the condition of the above mentioned industries before independence.

**(a) Tea Industry** - Establishment of Tea Industry was one of the greatest land marks in the economy of Assam during the British period. In 1833, the first tea garden was established in Assam by the Government. Just after this, various private companies and enterprising individuals were induced to take up tea plantations in the state. Initially, a huge amount of capital, mostly from British, was invested in this industry. A sum of Rs. 63.8 million was invested in the plantation sector of the state in the decade ending of 1881 as against an investment of Rs. 13.8 million in the preceding 12 years. Again a sum of Rs. 110.9 million was invested in tea industry during the next two decades. Further, under the waste and settlement Rules, the Government also encouraged the growth of tea industry by supplying sufficient land for tea plantation under very liberal terms. In Assam proper, the area of waste lands settled with planters increased from around 3 lakh acres in 1871 to 6.4 lakh acres by 1901. Further, with the aim of driving the farmers into the plantation jobs, the Government also raised land revenues. With the same intention, tea garden labourers were also offered comparatively higher wages including other facilities like concessional rice, free fuel and grazing land and a plot of land for private cultivation, etc.

During the period 1884 to 1900 there was an increase of 92 percent in the area under tea plantation. But since the turn of the 20th Century, i.e., during the fifty years period from 1900 to 1950, the acreage increased by 48 percent only. Total number of tea garden in Assam gradually increased from 906 in 1924 to 1120 in 1938-39. The

yield of black tea in Assam increased from 99 thousand tonnes in 1933 to 118 thousand tonnes in 1938. Average number of labour force, daily engaged in these tea gardens in Assam was 497106 in 1924, 486250 in 1933 and 489425 in 1938.

Tea being a leading industry in the state, encouraged the growth of several ancillary industries in Assam like plywood, saw mills, coal mining, general engineering works and also river transport and railway transport services. Further as good as 12 to 15 percent of the total population of Assam were dependent on this tea industry.

Although the tea industry of Assam was a leading sector during those days, but its role in the economy of the state was very limited as the growth stimuli produced by the industry was very small and confined within the modern sector only.

Further, most of the tea gardens were owned and managed by British companies. Area under Indian owned tea estates was only 16 percent of the total area under tea in Assam. Again majority of the owners of India owned tea gardens were non-Assamese. Naturally out of the huge earning of these tea industries in Assam only a part of it was used for financing the expansion of area sown and the remaining major part of the earning was remitted outside the state as dividends.

The tea industry in Assam also did not lead to the development of other industries of the state as the European owners and managers depended mostly on the consumer goods imported from abroad or other parts of India. Moreover, tea industry in Assam helped very little in the growth of managerial quality and entrepreneurship in the state as very few people of the locality were given the superior managerial posts in these tea gardens.

**(b) Petroleum Industry** - During the pre-independence period petroleum industry was also developed in Assam by the British rulers. In Assam, Oil was discovered in 1825. But the commercial production

of petroleum began in 1899 after the formation of Assam Oil Company under the patronage of the Assam Railway and Trading Company. With the taking over of the management of A.O.C. by the Burma Oil Company in 1921, the petroleum production in Assam increased to a great extent. The production of petroleum thus gradually increased from 11 million gallons in 1918 to 24 million gallons in 1926, 32 million gallons in 1928, 56 million gallons in 1931 and then to 65 million gallons in 1946.

Assam, being a monopoly producer of petroleum during the pre-independence period, earned a good amount of Government revenue from the production of petroleum apart from saving a good amount of foreign exchange for the country.

But as the petroleum industry was highly capital intensive, its contribution towards the development of the economy of state was very little. This industry provided employment to a limited number of persons of which local people were very few in number.

Besides, the petroleum industry was also owned and managed by foreign interests and thus major portion of the profit was repatriated keeping only a little portion of profit for reinvestment in Assam. A group of subsidiary industries like petro-chemical complex which could have been developed in the state side by side the petroleum industry, did not come up due to lack of capital, entrepreneurship and Government patronage.

**(c) Coal Mining** - During the British period coal mining was also undertaken in Assam. Coal was discovered in Assam as early as 1825. But the commercial exploitation of coal started only after the development of railways in Assam. Most of the coal fields in Assam were situated in Makum area which contained 80 to 85 percent of the total known Coal reserves. Coal reserves were also situated in the Khasi and Jaintia hills. Although Assam had a huge amount of coal reserves, only an insignificant portion of the reserve was exploited during the pre-independence period. Out of the total amount of Coal,

explored in the state, the maximum portion was utilised by the tea gardens and the railway system of Assam.

**(d) Factory Industries** - During the pre-independence era, the progress of factory industries was very slow, irregular and unbalanced as a very few number of new factories were added in different years. Among the total number of new and old registered factories, tea factories formed the largest number in the state. Those other factories registered in Assam were rice mills, general engineering workshops, Oil mills and Saw mills, etc.

**(e) Cottage and Village industries** - During the pre-independence period, a good number of Cottage and Village industries were existing in a precarious condition due to lack of finance, market and government patronage. Moreover, these cottage and village industries had to close down their business due to cut-throat competition from the cheap manufactured good both from abroad and other parts of India.

Later on, the Government realized the importance of these industries as they provide scope for employment to a huge number of populations both seasonally and throughout the year. Thus a separate Department of Industries was created in 1981 for the promotion and growth of indigenous industries in Assam. This department took many important measures for building up an infrastructure for the development of these village and cottage industries. These include establishment of Gauhati weaving school, Shillong weaving school for imparting industrial training, Titabar Muga Silk-worm Station for experimentation and a Government emporium for promoting the sale of cottage products at Gauhati.

All these efforts on the part of the Government created a congenial atmosphere which resulted in the growth of many handloom weaving and sericulture industries in Assam. In 1945, it was observed that "handloom weaving and sericulture, which are the most important cottage industries of the province, have developed considerably during

the last 20 years. This development is particularly due to the grant of subsidies by the Government of India since 1935-36. During this period, the number of fly-shuttle looms introduced by the Department through demonstration staff has more than doubled, the production of handloom fabrics has largely increased and the weavers have been enabled to earn larger income".<sup>1</sup>

But the condition of other traditional cottage industries deteriorated during the pre-independence period due to lack of attention paid by the Government towards these industries.

#### **4. Development of Infrastructures in Assam during Pre-Independence Period**

Availability of infrastructure facilities like transport and communication, power, proper health care of the industrial workers, agronomic and Agro-marketing infrastructure, warehouses and cold storage facilities, marketing infrastructure, financial institutions, sufficient credits, etc., is regarded as one of the mains pre-conditions of industrial development. But, the development of these infrastructures was in a very poor shape before the British rule in Assam. With the interest of developing tea industry, petroleum and the coal mining, the British Government did a lot in providing a modern transport system in Assam. Although inadequate, the progress made in the case of different types of transport - river, road and railway, during the British regime was pioneering in nature. Let us now look into the development of various types of infrastructural facilities in Assam during the pre-independence period.

1. *River transport*: From the very early part of their rule, the British authorities started to develop river transport in Assam considering the constraints in the development of roads and railways. The East India Company started a steamer service in 1847. Later, two more private companies were formed to provide regular

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Industrial Development of Assam @ [http://www.vedanti.com/Assam\\_Mirror/economy.htm](http://www.vedanti.com/Assam_Mirror/economy.htm)

commercial services to Assam in 1864 these were- the Indian General Navigation Company and the Rivers Steam Navigation company. Afterwards, these two companies were joined together to form the Joint Steamer Companies which ultimately maintained steamer services in the state throughout the British period. The steamer services helped the state in exporting bulky products like tea, Jute, timber, etc. and also in importing other consumer goods at a very low transit cost.

2. *Railways*: In the pre-British period, there was no railway system in Assam. With the growth of tea gardens in the interior places of the state, the need for a well developed railway system was felt for providing cheaper means of transport to these tea gardens. In 1881, the Assam Railways and Trading Company were formed by the British and the first railway line from Dibrugarh steamer ghat to Jaipur road was inaugurated in the next year. Two more companies, viz: Jorhat Provincial Railway and Tezpur-Balipara Railway, were also set up in 1885 to cater the need of transport for the tea gardens of Jorhat and Tezpur area.

In 1892, the Assam Bengal Railway was formed to provide railway connection to Assam with the rest of India. In 1902, Dhubri was connected with Calcutta by the extension of the Eastern Bengal Railway line. Again in 1909-10, Amingaon was connected with Calcutta through Dhubri. During the period 1896 and 1933 there was rapid expansion of railway lines in Assam.

3. *Roadways*: Rivers in Assam helped the state to develop the cheapest means of transport, i.e., the river transport. Thus the British rulers, in the very initial stage of their rule neglected the development of road. So the Public Works Department (P.W.D.) of the Government was established in 1868 for the construction of road in Assam. Again in 1880 Local Boards were formed for the improvement of roads in rural areas of the state.

After the First World War, Government realised the need for better roads and thus a Road Board was constituted at the provincial level in 1926-27. Again in 1927, a new fund - Tea Rates Road Fund

was created by imposing additional local rates on the tea lands for improving roads in the state.

In 1929-30, two more funds were created at the national level for the development of Roads in British India. These were - a Special Reserve Fund and a General Road Development Fund. During the period 1929-30 to 1937-38, financial assistance to the extent of Rs. 21.8 lakh from the General Fund and Rs. 36.9 lakh from the Reserve Fund was sanctioned in Assam. Thus, the British rulers spent only a small amount for the construction of roads which was the main reason behind the backwardness of road transport in the state.

4. *Development of Power:* From the very beginning, Assam had a huge potentiality for the development of power. But the utilisation of these potentialities both by the Government and the private sector was very limited during the pre-independence period.

Generation and supply of electricity in those days was managed by private companies under the license issued by the Government. The first electrical undertaking in the state was installed at Tezpur in the year 1913 for supplying electricity to the people. Similarly, more electrical installation was established in different towns of Assam for the same purpose. Later on, some of these companies were closed down.

Installed capacity of electricity was very low in Assam in comparison to other states both in absolute and relative terms. In 1939, Assam generated only 0.1 per cent of total electricity generated in British India. In Assam, the per capita generation of electricity was as poor as 0.26 Kwh as against 7.27 Kwh in British India

Thus, in the pre-independence era, the infrastructural facilities of Assam were not at all developed. The present form of the infrastructure facilities have been developed in the post independence period with the help of various phases of Five Year Plans.

## **5. Economic Development in the Post Independence Period**

Economic development has been the central theme of study all over the globe. Economic development is a combination of economic

growth and social change. Rapid economic growth can be achieved through structural changes of the economy of a country. In other words, economic development is associated with the structural transformation from an agriculture dominated economy to that of an industrial dominated one.

At this juncture, it will be appropriate to describe as to what is meant by the term "structure of an economy". The structure of an economy comprises the characteristic features of and the interrelationships among its constituent parts and subsystems. These characteristic features and interrelationships typify the economy and give to it a style, an appearance and individuality of its own.

Different economists in the past have studied the structure of an economy, although differently. Perhaps the earliest treatment to the study of the structure of a market-oriented economy is due to Sir William Petty who, in 1691, concluded that there is much more to be gained by manufacture than husbandry; and by merchandise than manufacture.<sup>2</sup> In the 18th Century, the leading Physiocrat Quesnay's *Tableau Economique* visualized an economy as an interacting system of three sectors, identifiable with those of the landowners, the farmers and the artisans, and three economic process-cum-activities - production, distribution and consumption. The lifeblood of this system was a mixture of the produce raised on farms and the articles made by the artisans that circulated in a closed circuit through the three sectors and the three processes/activities.<sup>3</sup> At that time the manufacturing sector made a tiny contribution to the income and employment in the economy (the French economy in particular) - the overwhelmingly large contribution was due to agriculture - and therefore the Physiocrats grossly undermined the manufacturing activities.

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<sup>2</sup> Clark, Colin (1951) *The Conditions of Economic Progress*, London, MacMillan and Co. Ltd., p. 395, pp. 24-28.

<sup>3</sup> Blaug, Mark (1983) *Economic Theory in Retrospect*, Delhi, Vikas Publishing House Pvt. Ltd.

Katouzian<sup>4</sup> suggests that Friedrich List's descriptive scheme of Agricultural, Agricultural-and-Manufacturing and Agricultural-Manufacturing-and-Commercial stages of economic development can now be explained in terms of the Primary, Secondary, Tertiary stages associated with the names of Allan Fisher, Colin Clark and Simon Kuznets. Friedrich List considered education, administration and communication to be historically important productive forces. It is interesting that the work of List intellectually led to the stages-of-growth thinking in the 20th Century.

Adam Smith visualized the economy as a system of economic agents, grouped into labourers, land-owners and the manufacturers by the criterion of ownership of resources, the activities they perform and the rewards they get. This system is market-oriented. For Smith, the market/price system is a mechanism that automatically imposes orderly rules on behaviour of economic agents, which, embedded in an appropriate institutional environment, is capable of harmonizing the pursuit of private interests with the achievement of the social goods.<sup>5</sup>

The structure of an economy as the characteristic feature and interrelationship among various classes (labourers, manufacturers, farmers and landlords) became more prominent in Ricardo and subsequently in Marx. In their systems conflict among class interests overrides the harmony visualized by Adam Smith. In a grand outline, the Ricardian view of the economy comprises two classes, the first of the landlords and the second of the manufacturers, peasants and the labourers conjoint. In Marx, however, the two classes are the labourers, and the industrialists, landlords and the peasants combined. In Marx we find an elaborate discussion on production conditions and relations.

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<sup>4</sup> Katouzian, Homa (1980) *Ideology and Method in Economics*, New York, New York University Press, p. 37.

<sup>5</sup> Blaug, Mark (1983), *Ibid.* p. 61.

The neo-classical revolution diluted the conception of the structure of an economy as the characteristic feature and interrelationship among different classes (of economic agents). The economy was visualized as a two-faceted market, the product market and the factor market. The inputs to the product market came from the factor market and the output of the former went to the latter (factor owners) as income and the consumables. Although the distinction among various types of factors of production was maintained, but the neoclassicists held that the rewards of all factors of production are determined by the same or very similar principles, namely productivity in particular.

Leon Walras formally described the interrelationship between the product and the factor markets in his general equilibrium model.<sup>6</sup> He elegantly showed how the quantities of different factors are used in the product market and how the prices of the factors as well as the products are determined and in this process how income is generated and distributed. The main achievement of Walras was to formally demonstrate the existence of equilibrium in the economy, which was well visualized and descriptively stated by Adam Smith.

The comprehensive concept of production became the prevailing one, especially after the publication of Marshall's *Economics of Industry*.<sup>7</sup> The modern national accounting in the Western world has been based on the comprehensive concept that owes much to Marshall. Except in the work of the Hungarian statistician Frederic Fellner and the national income calculations of the USSR and other socialist countries that were based on the Marxian concept, the basic methodology of national accounting is based on the sectoral composition of the economy as outlined by Marshall.<sup>8</sup>

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<sup>6</sup> Takayama, Akira (1974) *Mathematical Economics*, Illinois, The Dryden Press, pp. 265-265.

<sup>7</sup> Marshall, Alfred and Marshall, Mary P (1879) *Economics of Industry*, Bristol, Thoemmes Press; 18th edition (1996).

<sup>8</sup> Kenessey, Zoltan (2004) The Primary, Secondary, Tertiary and Quarternary Sectors of the Economy, Federal Reserve System, USA @ <http://www.roiw.org/1987/359.pdf> pp. 359-385.

In the middle of the twentieth century the importance of the growth of primary, secondary and tertiary industries, and of the shifts among them, were given prominence by Colin Clark.<sup>9</sup> Regarding the terminology itself Clark informs that the term tertiary industries was originated by Fisher<sup>10</sup> in New Zealand, and became widely known. It took its origin from the titles current in Australia and New Zealand of 'primary industry' for agriculture, grazing, trapping, forestry, fishing and mining, and 'secondary industry' for manufacture. In Australia and New Zealand these terms are not only used in statistical reference books but are widely current in popular discussion. The phrase 'tertiary industries' therefore immediately carries, in these countries, a suggestion of those excluded by the official definition of secondary industries.<sup>11</sup>

Leontief in his major work on the American economy<sup>12</sup> gave an explicit treatment to the study of structure of an economy. Unlike most of his predecessors in the classical and neoclassical traditions who conceived the structure in abstraction, Leontief gave an empirical meaning to it. The economy was conceived as a system of industries with inter-linkages established through the output of the one being used as input by the others. The so-called technical coefficient matrix that summarizes the structure of the economy of concern gives the quantitative description of this inter-industrial dependence. Besides the inter-industrial dependence, the complex of industries draw on the primary inputs (labour and natural resources) on the one hand and serves the consumption needs of the people.

Leontief's treatment to the study of the structure of an economy has multiple facets. In a way, the structure of an economy can be summarized in terms of income proportions generated by different

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9. Clark, Colin (1951) *Ibid*

10. Fisher, Allan GB (1935) *The Clash of Progress and Security*, London, McMillan Publishing Co.

11. Clark, Colin (1951), *Ibid*, pp. 395-396

12. Leontief, Wassily, W (1951) *The Structure of American Economy*, 1919-39, New York, Oxford University Press.

industries. It may also be summarized as the proportion of employment in different industries. Alternatively, the structure may be reflected in the proportion of output used as inputs (intermediate consumption by industries themselves) vis-à-vis being finally consumed by the people. Yet differently, the structure may be conceived as the configuration of complexes of industries with high intra-group linkages and sparse inter-group linkages.

Boeke conceptualized the structure of an economy in the socio-economic dualism. To him, it is possible to characterize a society, in the economic sense, by the social spirit, the organizational forms and the technique dominating it. These three aspects are interdependent and in this connection typify a society, in this way that a prevailing social spirit and the prevailing forms of organization and of technique give a society its style, its appearance, so that in their interrelation they may be called the social system, the social style or the social atmosphere of that society.<sup>13</sup> Less developed economies, especially with a history of prolonged colonial rule, often exhibit a simultaneous existence of two (or more) enclaves of socio-economic systems, characteristically and conspicuously different from each other, and each dominating a part of the society, the economy and the polity. These enclaves markedly differ in matters of ownership of resources, production relations, the social spirit, institutions, customs, mores and attitudinal structure, socio-economic and political organization, technological know-how and its application and so on. Of course, between these enclaves there exists a gray zone where distinction may not easily be perceived. This gray zone might be the crucible for integration, but it is equally likely that a colloidal admixture of heterogeneous elements persists for long and camouflages integration process.

Lewis analyzed the process of economic expansion in a dual economy composed of a capitalist sector (predominantly with profit

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<sup>13</sup> Boeke, Julius H (1953) *Economics and Economic Policy of Dual Societies, as Exemplified by Indonesia*. New York, International Secretariat, Institute of Pacific Relations.

motive) and a non-capitalist sector (mainly a subsistence economy). In his schema the structure of an economy obtains its configuration in the characteristic features of and interrelation between these two sectors.<sup>14</sup>

Among 20th century researchers Simon Kuznets<sup>15</sup> has been recognized as a foremost authority on studying the structure of economies. In his study "Toward a Theory of Economic Growth" he summarized certain findings, based on the review of long-term changes in the structure of production in the US and other economies. The first was, of course, the shift away from agriculture, as economic growth accelerated. Beyond that, mentions Kenessey, Kuznets wrote in the early 1950s "For the more advanced countries. . . we should also note some significant trends in the distribution of the non-agricultural sectors proper. The shares of mining and manufacturing in the total labor force grew significantly, but the increases have ceased or slowed down during the recent decades. The shares of the transportation and communications industries in the labor force also grew but became stable after World War I or even before; . . . The shares of trade and other service industries, a miscellaneous group including business, personal, professional, and government services, have grown steadily and have continued to grow in recent decades."<sup>16</sup> The basic thrust of Kuznets' finding apparently remained relevant for the 1960s and the 1970s as well and the many analytical points made by Kuznets continue to deserve close attention.<sup>17</sup>

The most traditional measures of economic structure are sectoral shares of the labor force, consumption patterns, and variables

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<sup>14</sup> Lewis, William, A (1954) Economic Development with Unlimited Supplies of Labour, *The Manchester School*, 22, 139-91.

<sup>15</sup> Kuznets, Simon (1965) Towards a Theory of Economic Growth" in *Economic Growth and Structure*, New York, WW Norton & Co.

<sup>16</sup> Kenessey, Zoltan (2004) Ibid. <http://www.nap.edu/readingroom/books/biomems/skuznets.pdf>

<sup>17</sup> Kenessey, Zoltan (2004) Ibid.; Fogel, Robert W (2001) Simon Kuznets : 1901-1985, in *Biological Memoirs*, 79, Washington, DC, The National Academy Press, @ <http://www.nap.edu/readingroom/books/biomems/skuznets.pdf>

measuring income distribution. All three categories have been analyzed in Clark (1951). Kuznets in his long series of papers (published in *Economic Development and Cultural Change*, mentioned before) examined these three categories in more detail and added the analysis of sectoral shares of GDP and some trade-related variables. Chenery and Syrquin<sup>15</sup> added some more categories of variables: investment, government revenues, education, urbanization, and demographic transition.

The structure of an economy evolves over time; it determines economic development as well as it is modified by the level of development the economy attains. Economic development is partly determined by the indigenous conditions and forces, and partly by the exogenous influences including the inflow of resources such as labour, capital, skill, technology, knowledge and information, contingent upon the openness of the economy to such external influences.

Douglass North holds that the structure of an economy is determined by the resource base, infrastructure, technology and institutions. The substantial content of a socio-economic system lies in its resource base in the short run and the natural endowments in the long run. At this juncture it is pertinent to distinguish between the resource base and the natural endowments. Only that part of natural endowments, which may be harnessed by using the available technology at the disposal of a socio-economic system, can be considered as its resource base. Technological development may be indigenous or imported. When it is indigenous, it is intrinsically consistent with the components of its natal environment. However, when it is imported, its host environment may modify its effectiveness. Adoption of an exotic technology and adaptation of the host environment to its

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<sup>15</sup> Chenery, Hollis B and Syrquin, Moises (1975) *Patterns of Development: 1950-1970*, New York Oxford University Press.

requirements and functions are time taking processes. They may call for changes in organizational structure as well as the inter-componential bounds that could be full of strife and resistance. Availability of infrastructure facilitates adoption and spread of technology, although it does not make a sufficient condition for that. Development of infrastructure is overwhelmingly capital intensive and time taking process. Besides infrastructure, institutions play a very important role in the development of indigenous technology as well as the adoption of the exogenous technology. To North, institutions are “the humanly devised constraints that construct human interaction”;<sup>19</sup> or, the rules of the game in a society. His conception of institutions is similar to that of Thorstein Veblen,<sup>20</sup> includes the moral sentiments of Adam Smith,<sup>21</sup> the *n-achievement* of David McClelland<sup>22</sup> and *pressures* of Harvey Liebenstein,<sup>23</sup> and foreshadows the legal framework of Richard Posner<sup>24</sup> and social capital of Robert Putnam.<sup>25</sup> Some institutions are favourable to development while some others may thwart it. If institutions are not favourable, the extension of the resource base to internalize the natural endowments by using the imported technology may be sluggish and often poorly effective. Nevertheless,

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<sup>19</sup> North, Douglass C (1981) *Structure and Change in Economic History*, New York, WW Norton & Co. p. 344.

<sup>20</sup> Veblen, Thorstein B (1899) *The Theory of the Leisure Class*. (Reprint, 1953), New York, The New American Library.

<sup>21</sup> Smith, Adam (1759) *The Theory of the Moral Sentiments*, Edinburgh, (reprint by Bell, London, 1907) and London, The Adam Smith Institute (2001 e-version).

<sup>22</sup> McClelland, David C (1961) *The Achieving Society*, New York, The Free Press.

<sup>23</sup> Liebenstein, Harvey (1966) Allocative Efficiency vs. ‘X-Efficiency’. *American Economic Review*, 65, 392-415.

<sup>24</sup> Posner, Richard A (1992) *Economic Analysis of Law*, (4th edn), Boston, Primeaux, Little Brown.

<sup>25</sup> Putnam, Robert D (1993) *Making Democracy Work*, New Jersey, Princeton Univ. Press; Putnam, Robert D (2000) *Bowling Alone: The Collapse and Revival of American Community*, New York, Simon and Schuster.

if institutions are favourable and such a technology can make a dent, it expands the resource base of a socio-economic system.

From the above discussion, we can come to a point that, the process of economic development emanates from an agricultural stage through an agricultural-industrial stage and finally, to an agricultural-industrial-commercial stage. In the present day context, the process of development has been described as being comprised of three main phases:

1. The pre-industrial phase in which economy is based on agriculture, mining, fishing, etc.;
2. Industrial phase in which there occurs a significant shift from agriculture to industry; and
3. The post-industrial phase in which economy becomes mainly a service economy.

The shift of economy from one phase to the other entails structural transformation of the economy's different sectors. The transformation may occur stage by stage, i.e., from phase 1 to phase 2 and then phase 2 to phase 3; or it may also be possible that, shift of the economic activities occur haphazardly from phase 1 to phase 3, as we can experience it from the Assam Economy with large share of income from primary and tertiary sectors with a meager contribution from the secondary sector. But, this is not a healthy sign of economic development because large economic activities and contribution of primary and tertiary sectors with tiny industrial sector signifies that neither agricultural sector nor services has provided enough support for industrial development in the economy. The higher rate of growth in the tertiary sector is the result mostly of the Government's welfare activities to the common people of the State or may be the result of the hefty salaries of the employees in various Governmental and Non-governmental organisations, which may not be termed as growth in

real sense. Therefore, it is desirable that, the development process takes place phase-wise.

## 6. Planning for Economic Development

Since under-developed states like Assam have very limited means for exploiting the various resources for economic development, it is only through the coordinated policy formulation that the resources can be utilized most efficiently. This is where the economic planning becomes the utmost necessity for such economies. "*Planning for*

*economic development implies external direction or regulation of economic activity by planning authority which is, in most cases, identified with the government of the state*".<sup>26</sup> Thus, planning for economic development aims at improving the per capita income, human resource development, standard of living of the people within its purview, etc. In other words, the economic planning for development aims at removing the deficiencies of the under-developed economy and putting it on a right track.

Along with the other States of Indian Union, Assam also stated planning for its economic development since 1951. The fundamental objective of economic planning in Assam is to accelerate its economic development through optimum utilisation of its resources so that a reasonably high standard of economic well being can be attained by the masses by removing all the bottlenecks of development. Another very important objective of economic planning in Assam is to reduce the disparities in income and wealth to the minimum level. So, all the objectives of the planning in Assam centre round providing equality and justice to its masses.

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<sup>26</sup> D.R. Gadgil, *Planning and Economic Policy in India*, p. 88.

In this particular book, attempts have been made to bring forward the development strategies that have been adopted in the Five Year Plans of Assam for industrial sector over the years. Industry as one of the sub-sectors of secondary sector plays a pivotal role in development of the economy of a state or a country. Therefore, industrial sector requires a special attention and analysis from the planners so that they can adopt appropriate measures to give pace to its development in particular, and economic development as a whole.

