CHAPTER VI

PRODUCTION

The manufactures produced enough commodities, which after catering to the home demand left enough for export. With her surplus products, agriculture as well as industrial, coastal Orissa under the Muslim Rule, could conduct widespread intra-local, inter-regional and foreign trade. At the intra-local level, as testified by the European travellers of medieval Orissa, in the *hats* or the periodical markets even of the smallest villages, trade was conducted on commodities like rice, pulses, oil, butter, milk, *ghee*, vegetables, fruits, salt, sugar, clothes, fish and other necessaries of life in abundance. The intra-local trade relation suggests that the people were provided with all that was required for life. The commodities of daily necessity, if not of luxury, were generally cheap except during natural calamities. The system or barter or *cowry* currency could well satisfy their needs without any complexity in commercial life. But by and large the craftsmen were unable to improve their standard of living. However, a section of the businessmen were able to benefit from the increased economic activity. In fact, some of them were very rich. But very often they were subjected to humiliation by the ruling class. Trade also brought prosperity to zamindars and officers in the Mughal administration. The increased production and higher exports were, no doubt, characteristic features of the crafts and commerce during the period under survey.

I. AGRICULTURAL PRODUCTION:

Agriculture played a dominant role in medieval Orissa’s economy. The fertile soil, river system and climatic conditions favoured the growth of agriculture in Orissa. M.D. Thevenot (1666-67) mentioned Orissa to be a fruitful province.\(^1\) Bowrey noted that Gingelly coast which extended from the Godavari to Puri was very rich and produced rice, wheat, barley, grams, plenty of cow, sheep and goat.\(^2\) In 1708,

\(^1\) M.D. Thevenot, *Indian Travels*, Ed. by S.N. Sen, p. 95.

Alexander Hamilton observed that the river of Cuttack (Mahanadi), flowing through Orissa increased the fertility of its soil.\textsuperscript{3}

Rice was one of the main crops of cultivation in coastal Orissa during our period.\textsuperscript{4} Manucci observed much of rice was produced in Orissa\textsuperscript{5} and Alexander Hamilton mentioned its cultivation extended to the whole of Orissa.\textsuperscript{6} Abul Fazl (1595-1596) writes that rice was staple cultivation of Orissa.\textsuperscript{7} Since Orissa produced rice abundantly, after meeting the internal rice consumption, it was exported to other parts of India. During the period under survey Orissa could also export rice to foreign countries. The European factors found it as an article of investment.

The main rice producing centre in this period was Balasore, though we have evidence that her two neighbours Pipili and Kanika, at the point Palmira also produced and exported rice at the close of seventeenth century and first half of the eighteenth century.\textsuperscript{8} Rice was produced in plenty in Jaleswar. Traders and ships from different parts of India and East Indies converged at these places even early in the seventeenth century to secure rice.\textsuperscript{9} In the entire period under review the prices of provisions in the Bengal’s Jurisdiction of Orissa was fairly cheap and cheaper than any other parts in India. To induce her merchants to carry on trade profitably not only with other parts of India, but also South East Asia, Ceylon, Maldives and the ports in the Western India.\textsuperscript{10}


\textsuperscript{5} Manucci, Vol. II, p. 427.


Puri was a great centre for the production of rice, wheat, butter, and oil. Tavernier observed that wheat, rice, butter, milk were distributed to the pilgrims who congregated in large numbers in Puri. A large quantity of rice was boiled every morning to feed the multitude.

Hedges observed that the valley around Nilgiri, situated near Balasore were full of rice, gram and all sorts of pulses. Pipli during the time of Thevenot, produced rice, corn, ginger, long pepper and various sorts of articles. The Dutch drove a good trade in rice at Kanika. It afforded plenty of boiled rice. Our sources also mentioned that according to the orders of Shaista Khan 20,000 maunds of rice were to be obtained from Jaipur, Bhadrak and other places of Orissa.

Ganjam and Harishpur produced rice, and the coast of Coromandel (beyond Godavari) depended upon Gingelly coast for their rice. Generally, a few areas in southern Coromandel produced sufficient rice, but in the time of any natural calamity they failed to meet their own need and imported from Orissa. Hence the places to which she exported rice, would depend on the situation there. Since Orissa produced rice abundantly, after meeting the internal rice consumption, it was exported to other parts of India; such as if there was any shortage in central or southern Coromandel, then almost all the shipments would be directed from Bimlipatam and Ganjam to places like Pulicat, Madras, Sadrasapatnam and Porto Novo. But if there was no shortage here then rice from Gingelly was exported to Achin, Malacca, Ceylon, Maldives, and even to West Asia. The European factor found it as an article of

12 J.B. Tavernier, *Tavernier’s Travel in India*, Calcutta, 1905, p. 419.
19 Ibid.
As the production of wheat is concerned although essentially Orissa fell into the rice producing division\(^\text{20}\) in the period under survey, yet there was the production of wheat to some extent. European travellers viz., William Bruton (1633) Thomas Bowrey (1669-1679) and Alexander Hamilton (1708) refer to the production of wheat respectively at Puri, Gingelly coast and Balasore.\(^\text{21}\) However, J. Tieffenthaler (1743-1786) categorically stated that wheat was not grown in Orissa.\(^\text{22}\) Since the people of Orissa were mainly rice-eaters so the cultivation of wheat was restricted to a very little extent, and thus might have gone unnoticed by Tieffenthaler. A. Sterling clearly refers to the production of good wheat in Orissa.\(^\text{23}\)

Barley was also grown in coastal Orissa. A. Sterling writes that small quantity of barley was grown in some paraganas of Orissa.\(^\text{24}\) Thomas Bowrey found it being produced at the Gingelly coast.\(^\text{25}\)

Fruits were grown abundantly in different parts of coastal Orissa as referred to by the foreign travellers. *Ain-i-Akbari* informs us that fruits and flowers were grown plenty in Orissa. Our literary sources also provide us with long list of fruits which seem to have formed an important part of everyday food. The Portuguese who came to Orissa as traders in the medieval period were lovers of agri-horticulture. This prompted them to bring some useful fruits and flowers of other lands to Orissa. They brought potato from North America and in course of time it became common article of food in Orissa. Abul Fazl refers to brinjal or *baigun* which was commonly eaten and one of the important garden crops of Orissa.\(^\text{26}\)


\(^\text{23}\) A. Sterling, *An Account (Geographical, Statistical and Historical) of Orissa Proper or Cuttack*, Calcutta, 1904, p. 18.

\(^\text{24}\) A. Sterling, *op. cit.*, p. 18.

\(^\text{25}\) Thomas Bowrey, *op. cit.*, p. 121.

Our references are many to the production of various kinds of pulses in coastal Orissa. Thomas Bowrey, William Hedges, Alexander Hamilton refers to the production of different kinds of pulses. The names of the different pulses cultivated in Orissa are mung, birhi, kulthi, china, maize, etc. Tieffenthaler referred to the production of a kind of pulse called Ourd in Orissa. It seems to be harada, a popular dal or pulse of Orissa.

Coastal Orissa’s soil was suitable for the cultivation of sugarcane. In the medieval times it was a valuable crop. Bhavaprakash, a medieval work of sixteenth century, describes of the process how ‘guda’ and ‘phanita’ were made out of the juice of the sugarcane. The ‘guda’ of Bengal and Orissa is generally a mixture of liquid molasses and solid crystal. We have reference to the export of sugar from Balasore port in the seventeenth century. Contemporary sources reveal that Balasore, Puri and Ganjam produced sugar during the period under review.

Thevenot has mentioned Pipli as a centre of sugar production. A. Hamilton observed the cultivation of sugarcane in Ganjam. During his time “pretty good sugars” both white and brown were produced in Ganjam. Bruton mentions that sugar was produced in Puri.

Production of betel leaves of many varieties is referred by Abul Fazl.

30 W.H. Moreland, *India At the Death of Akbar*, p. 119.
32 Ibid., p. 434.
35 Ibid.
Sterling while writing in the early part of the 19th century has challenged the veracity of Abul Fazl's statement and holds that the peasants of Orissa did not know the method of betel cultivation until taught by the natives of Bengal some generations back and that the production of betel leaves was adequate only to the supply of a very limited consumption.\(^{38}\) The view of Sterling seems to be untenable. The people of medieval Orissa definitely knew the cultivation of various kinds of betel leaves as mentioned by Abul Fazl in 1595-96 and confirmed by Sujan Rai after a century.

The people of Orissa produced spices of different kinds locally to meet the internal requirement. Alexander Hamilton refers to the production of spices viz., anise, cumin, til, coriander and caraway.\(^{39}\) Turmeric, chillies, onion, ginger and garlic were other important spices cultivated in Orissa. The production of turmeric was so plentiful that it became an article of investment of the English East India Company in Orissa.\(^ {40}\) Except turmeric, we do not have any reference to the export of other spices from Orissa during the period under discussion.

Oil production occupied an important place in the economic life of the people of coastal Orissa in this period. Though no direct reference to the process of manufacture of oil is available, it seems probable that for the production of oil the traditional method was adopted by the people. Oil was extracted by means of a large wooden mortar and pestle worked by cattle. The raw material of this industry was grown locally. Orissa produced various kinds of oil, the most important amongst them were gingelly (sesame) and mustard oil.\(^ {41}\) The production of various oil seeds was so extensively cultivated that after meeting the internal requirements some oils (particularly gingelly) was exported to other countries. All this suggests the flourishing condition of oil industry and its production which provided employment to a good number of people in Medieval Orissa.

The production of cotton yarn seems to have been an independent

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\(^{38}\) A. Sterling, *op. cit.*, p. 18.


manufacturing activity and secondary engagement in the weaving family in India during our period. It was also the activity in subsistence-oriented peasant households. Though in the contemporary records there is mention of 'production of cloth' not 'cotton cultivation' in Orissa, it can be surmised that the raw material of the industry was locally grown, rather than entirely depending on external supplies. The flourishing condition of the industry further suggests that cotton cultivation received more attention in medieval Orissa.

In the seventeenth century, the cotton manufactures received further impetus. Apparently, the reason was the arrival of more European traders consequent upon the formation of the English and Dutch East India Companies. The new European traders found that Indian textiles were items of Inter-Asiatic trade and hence were keen to procure textiles from different parts of India. It was in pursuit of this objective that the English and the Dutch as distinct from the Portuguese, entered markets in the interior of the country besides exploring the coastal ones. However, detailed discussion would be made on next section.

Tobacco, an intoxicant was first introduced in India by the Portuguese sometime in the first decade of the seventeenth century. The Portuguese, who came in contact with the people of Orissa, brought tobacco from North America and introduced it in this part of the land as an intoxicant. The people of Orissa seems to have started its cultivation during the medieval period. 

The tradition of manufacturing silk textiles continued in the seventeenth century. This very fact suggests that sericulture was practised in medieval coastal Orissa. Bruton note the abundance of silk textiles manufactured at Puri. Manrique

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43 Ibid.
44 EFI, 1618-1621, pp. 112, 197, 213.
46 A. Sterling, op. cit., p. 18; L.S.S. O'Malley, B.D.G., Balasore, p. 85.
47 EFI, 1634-1636, p. 42; P. Acharya, op. cit., p. 201.
in course of his visit observed the silk manufactures of Jaleswar and noted that it was the chief article of merchandise. During this period, Hariparup was also noted for its silk textiles. Production of tussar in the country of the Raja of Tillbrichrumbung (Tribikrambhanj or Mayurbhanj) as Walter Clavell wrote in 1667, "the best quality and the largest quantity was procurable. In the sixties of sixteenth century, Caesar Frederike referred to the production of 'herba' (tussar) which is a kind of silk, grows amongst the woods.

Agricultural production in medieval Orissa, was not always smooth, the factors may be considered as untimeliness climate, political confusion, agrarian exploitation which created serious interruptions or violent setbacks for agricultural life. Failure of crop often brought famine, causing untold miseries for the people more particularly for the cultivating class. The political confusion at certain periods gave setback to agricultural production. During the period of political turmoil, the people were leaving their villages in fear, such a situation always-affected adversely proper cultivation of land. The impact of an agrarian exploitation has been argued that since the land revenue covered practically the entire surplus produce raised by the peasant, and that since, representing a fixed share of the produce or a fixed cash-rate on the crop per unit of area, it was a retrogressive tax, it fell excessively heavily on the smaller peasantry. Thus agricultural production in Orissa depended largely on the personal enterprise of the cultivators and favourable situation.


49 L.S.S. O'Malley, B.D.G., Cuttack, p. 236


52 Irfan Habib, op. cit., pp. 190-96.
II. INDUSTRIAL PRODUCTION:

From the agrarian economy, we may now transfer our attention to the non-agricultural sector. Since capitalism alters fundamentally the relationship between these two sectors, increasing phenomenally the non-agricultural or industrial production, it is natural to look for the signs of the beginnings of capitalism in conditions that obtained in the non-agricultural sector of the country. Although agriculture formed the main feature of the economic life of the people, yet, there existed several crafts and industries in Orissa during the period under survey. As it seems, a considerable portion of Orissa’s population earned their livelihood working as manufacturers of various kinds of non-agricultural products. The abundance of the products was such that even after the full needs of the people were met, there was left considerable surplus for export.

Textiles:

Textile production was the most important sector of India’s economy, after agriculture, in pre-colonial times; in the seventeenth century it also accounted for a significant share in the entire international trade. It has been an assumption often repeated that crafts have no history in India, i.e., that all the elementary tools, devices and practices were already in existence at the earliest imaginable times – “earlier even than the immigration of the Aryans”53 – and that all developments since then have been of a minor or very secondary nature.

Textiles were most important both in terms of value and volume in the overall picture of Orissa’s production during the period under review. It is common knowledge that the European Companies began to display interest in the Indian textile trade in the early seventeenth century for the purpose of bartering cotton piece-goods in the Indian Archipelago for pepper and spices. The direct trade in textiles between Europe and India developed as an essential byproduct of this ‘earlier and more urgent necessity’. The most striking feature of the English East India Company’s textile trade from Bengal and Orissa was a boom in export which began in the early 1680’s under

the stimulus of a rapid expansion in demand for calicoes in the European markets, and it continued, with the exception of a brief interruption due to the political turmoil.

The multiplicity of the types of textiles exported from Orissa renders their identification and proper division into different categories an exceedingly difficult task. It is not easy to identity some of them such as umbers, mohmudiaties, aitchabannies, abrowahs, bulcholls, coopes, doodamies, etc. However, this limitation notwithstanding, the piece-goods exported by the Company can be divided into three main types: first, silk, piece-goods. Secondly, mixed piece-goods, that is, piece-goods of mixed silk and cotton and thirdly, cotton piece-goods, plain or painted. In addition, there was another category of miscellaneous goods consisting of quilts, tablecloths, plushes, velvets etc. Sometimes, however, some of the piece-goods such as romalls and lungis could be of pure silk or cotton, or even of mixed cotton and silk.

Silk piece-goods:

Silk piece-goods were known to the English by the term taffatie or taffeta and the Dutch termed it armosijnen. The word vague sense to imply fine cloth, usually of a silky and glossy quality. When the Europeans introduced the term into India, it became mixed up with Persian taffita, 'a glossy twist', already in use as a term for silk.

Coastal Orissa produced varieties of silk goods during the period under review. Tassar silk was available in vicinity during the time of Master in Balasore. In 1680, the importance of Balasore increased as a silk manufacturing centre, when the English demand for silk and other goods. Master has mentioned the offer of the merchants of Balasore to sell 12,000 pieces of silk rumals to the English East India Company. The Company’s requirement for 7,500 pieces of silk rumals, 6,000 pieces of Herba Taffataes and 20 bales of tassar or herba thread were to be provided at

54 Sushil Chaudhuri, Trade and Commercial... , p. 192.
56 S.A. Khan, East India Trade in the XVIII Century, Delhi, pp. 160-61.
Balasore in 1681.\textsuperscript{58} In 1708, Alexander Hamilton referred to the production of silk cloths at Balasore.\textsuperscript{59} In 1676, Walter Clavell wrote that Balasore which was near the country of the Raja of Tillbrichrumbung or Mayurbhanj where the best quality and the largest quantity of Tester (tassar) or herba was procurable. Further, “Gingham, Herba Taffatyas, Herba Lungis (Lungi or loin cloth) and other sorts of herba goods” manufactured in neighbouring places could be easily brought to Balasore. Among other silk piece-goods exported by the English Company were silk romalls, neck cloths and atlasses woven mostly produced in Balasore area.\textsuperscript{60}

Pipli was another centre where silk manufacturers were carried during the time of Thevenot.\textsuperscript{61} William Bruton in 1633 mentioned about the production of silk textiles at Puri.\textsuperscript{62} Jaleswar and Hariarpur were noted for its silk textiles during the time of Manrique.\textsuperscript{63}

\section*{Piece-goods of Mixed Silk and Cotton :}

Throughout the period under review, it seems that, mixed fabrics and cotton goods comprised the largest bulk of production. The mixed piece-goods exported by the Company were mainly allabanees, cuttanees, carridaries or choradarries, chucklaes, cherconnaes, cushtaes, doreas, elatches, gingham, jamdanees, nehallewars, nillaes, peniascoes, sooses, seersuckers, and mandilla. Peter Mundy, in the thirties of the seventeenth century, referred to the production of linen striped with white silk.\textsuperscript{64} Alexander Hamilton mentioned to a sort of ‘tough grass’ out of which gingham, and pinascos were made at Balasore.\textsuperscript{65} Further he referred about the
production of *rumals*, *gurrahs* and *lungis* of silk and cotton mixed at Balasore. Sometimes, the filaments of silk manufactures were drawn from the barks of certain very white and very pretty trees. Fra Bartolomeo says that *ginghams* was a cotton stuff is which cotton is interwoven with thread made of certain barks of tree. The craft was known to Orissa and Bengal.

**Cotton piece-goods (plain or painted):**

But it was cotton piece-goods which numerically far surpassed other piece-goods, whether of silk or mixed varieties in the production list of coastal Orissa during the period under survey. The different varieties of cotton clothes manufactured in Orissa comprised as *sanas* or *sannoes*, *gurrahs*, *cassaes* or *khassa*, *ginghams*, *hummancees*, *orammalls* or *rumal*, *mulmul* or *malma*, *neelaes* or *nillees* or *nala*, *dimmies*, *battilbies*, *charconnas*, *ambaries*, *seerbands*, *lungies*, *do-suties* and *salampores* etc. The quality of the different types of cotton piece-goods in different areas varied widely as did their prices.

So far as the change in consumer test was concerned, the ‘Indian Craze’ set in about the 1680s and was a marked feature of the last decade of the seventeenth century. It is unnecessary to describe this trend in fashion, but it obviously acted as an active economic factor. The nature and extent of this fashion is revealed by J. Cary’s Pamphlet of 1695 which states:

“It was scarce thought about twenty years since that we should ever see Calicoes, the Ornaments of our greatest Gallants (for such they are, whether we call them Muslin’s, shades or anything else) when they were then rarely used, save in Shrouds for the Dead, and Chiefly among the poor who could not go to the price of finer Linnen, and yet were unwilling to imitate the Rich; but now few thing themselves well dress till they are made up in Calicoes, both men and women calico shirts, Neckcloths, Cuffs, Pocket-Handkerchiefs for the former, Headdress, Night-royals, Hoods, Sleeves, Aprons, Gowns, Petticoats and what not for the latter, besides India stockings for both the sexes”.

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66 Ibid.


In Orissa however, we see that during our period among the textile products, cotton goods held the important and foremost place. Peter Mundy (1628-1634) furnishes a list of cotton textiles produced in Orissa. According to him, the following varieties were produced in the thirties of the seventeenth century e.g. cassaes (fine and tin cloth), ambarees (canopied howdah), chara cannaes (chequered muslins, linen striped with white silk) hamam (a thick stout cloth used for wrappers) linen. Some of the cheap, but well-made cotton manufactures were available at Balasore. In 1644, the Surat factory to invest money in “ginghams, sannoes, cassaes and hummanees proper for England, intended to be sent unto you as a testimony of what cheap and well-made cloth those parts afford”. It is evident from the account of Lockyer that “Balasore gingham” had taken a prominent place in the field of textiles of Orissa at the close of the seventeenth century. During the visit of Alexander Hamilton, Balasore had rightly become the emporium of textile products. The native weavers manufactured cotton cloths, sannoes, cassaes, dimities, mulmuls, rumals, gurrahs, lungis, gingham and spinascoe.

Sannoes or sanas, a kind of fine white cotton gods (Sanu). Luiller says, 'Balasore is a place celebrated for trade in fine white calicoes called sanas.' Sir R.C. Temple thought that the sanah of the seventeenth century exists as salu, a cheap fine cloth, generally red, in common use in Orissa and Bengal. But this seems improbable, as the one is white and the other red. In Hobson-Jobson, sannoes has been mentioned in the list of piece-goods without any explanation of the term. But
in the case of salu detailed explanation has been given.\textsuperscript{78}

_Gingham_ defined as an Indian cotton cloth. The term probably of Indo-European origin, denoted "a stuff made of cotton yarn dyed before being woven."\textsuperscript{79} The Orissan variety of _ginghams_ was superior to the Bengal variety available at Hugli, as Bridgman sending a bale of the latter to the Company in 1650 did not recommend it.\textsuperscript{80} Its important feature was that it was woven with double threaded warps and wefts that having a distinct texture.\textsuperscript{81}

_Orammalls or Rumal_, a handkerchief.\textsuperscript{82}

_Cassaes or Khassa_, a fine thin cloth with a plain _muslin_ of good quality.\textsuperscript{83}

_Mulmul or Malma_ a kind of _muslin_ or Hindi _malmal muslin_.\textsuperscript{84}

_Humhum or hammam_ is a thick stout cloth used for wrappers.\textsuperscript{85}

_Gurrahs_; a plain cotton cloth generally for inferior quality\textsuperscript{86} and the name is perhaps derived from Hindi _garha_.\textsuperscript{87}

_Neelaes or Nillees_, a kind of blue cloth. It is finest and most glossy and striped with

\textsuperscript{78} Ibid., p. 818n.
\textsuperscript{79} T. Bowrey, _op. cit._, p. 231n.
\textsuperscript{80} _EFI_, 1646-1650, pp. 337-38.
\textsuperscript{81} _Journal of Indian Textile History_, 1956, App. IX, p. 41.
\textsuperscript{82} _EFI_, 1646-1650, pp. 337-38; T. Bowrey, _op. cit._, p. 133n.
\textsuperscript{83} Ibid., p. 279.
\textsuperscript{84} Ibid., pp. 279, 237; _J.I.T.H._, 1957, p. 70.
\textsuperscript{85} _EFI_, 1646-1650, pp. 279, 237.
\textsuperscript{86} _J.I.T.H._, 1957, p. 69.
\textsuperscript{87} Hobson-Jobson, p. 707.
lightest colours sometimes as hair colour, sky colour.\textsuperscript{88}

\textit{Dimities} has been mentioned in the list of piece-goods without any explanation in Hobson-Jobson.\textsuperscript{89} Webster has defined it as a 'cotton fabric with raised stripes or cords employed for hangings and furniture coverings and sometimes used for garments.'\textsuperscript{90}

In \textit{calico} were included \textit{muslin}, long cloth and 'chintz' and in fact it was a generic term for cotton cloth.\textsuperscript{91}

\textit{Isehen} or \textit{Sahan} is a superior wide cloth suitable for bed-sheets.\textsuperscript{92}

\textit{Battolis} is derived from the Portuguese word \textit{beatilla} (a curtain) and is a kind of \textit{muslin}.\textsuperscript{93}

\textit{Ambari}, is derived from Persian \textit{amari} is canopied \textit{hawdah}.\textsuperscript{94}

\textit{Seerband}, is a kind of \textit{muslin}, derived from Hindi ‘\textit{Sriband}’ turban.\textsuperscript{95}

\textit{Salampores} is a kind of chintz.\textsuperscript{96}

Balasore was an emporium of cotton yarn, cotton and \textit{tassar} manufacturers of the interior hinterland and surrounding places.\textsuperscript{97} Most prominent among the centres,

\textsuperscript{88} Master’s Diary, Vol. II, p. 227.
\textsuperscript{89} Hobson-Jobson, p. 70.
\textsuperscript{91} T. Bowrey, \textit{op. cit.}, p. 122n.
\textsuperscript{92} EFI, 1618-1621, p. 193n.
\textsuperscript{93} J.I.T.H., 1956, App. IX, p. 40.
\textsuperscript{94} Hobson-Jobson, p. 70.
\textsuperscript{95} Ibid., p. 708.
\textsuperscript{96} Hobson-Jobson, p. 784.
arranges in order of quality of goods manufactured were Suro (Soro)98 Harrapore (Harishpur)99 Mohanpore (Muhunpur)100 all specialising in manufacture of sannoes. Of the varieties of cotton cloths produced at Balasore - sannoes, dimities and mulmuls - were noteworthy.101 The factory records reveals that the English had a trade in sannoes produced in Balasore in 1661.102 It has been observed that there was ample opportunities to explore the “very great straggling town” Balasore.103 Where there were houses of a long number of merchants who had trade links with the European Companies.104 At a consultation the English factors at Balasore (16th December 1676) proposed to deal with the weavers of Soro for sannoes.105 Clavell writes in his account of Balasore that the weavers of Suro used to live in the “skirts of Balasore”. Sir R.C. Temple, the editor of the Diaries of Streynsham Master, expresses doubt on this, saying that Suro can hardly be called outskirts of Balasore.106

In Balasore, there manufactured coloured ginghams, nilaes and non-silk rumals and sold to the East India Company in 1677.107 In 1677-78, St. George received 10,000 pieces of ginghams and 8,000 pieces of sannoes 10,000 pieces of nilaes from Balasore.108 According to the instructions of the Company coloured ginghams of the finest sort 15,000 pieces nilaes, 18,000 pieces sannoes, 25,000 pieces and one hundred bales of cotton yarn not hard spun or cross-reeled were to be

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98 Suro or Soro in Balasore district (Lat. 21°16′, Long 86°49′); J.N. Sarkar, Studies in Mughal India, pp. 228, 229.

99 Harrapore (Harishpur) near modern Jagatsinghpur a town in the Mahanadi delta, about halfway between Cuttack and Harishpur Gar, a port at which the English landed.

100 A village previously in Orissa now in Midnapur district (Lat. 21°50′, Long 87°24′).


102 EFI, 1661-1664, p. 149.


105 Ibid., p. 86.

106 Ibid.

107 Records of Fort St. George, Sundry Book, 1677-78, Madras, 1910, p. 100.

108 Ibid., p. 2.
provided at Balasore. In 1682, 3,000 pieces of rumals were to be provided to the English Company in Balasore. Dimties were also produced in places around Balasore. These were white and of a very fine quality. 15,000 pieces of dimities were to be procured for the Company in 1698.

There was regular supply of Orissan cloth goods from Balasore to Patna in the 17th century. In the thirties of the seventeenth century, Peter Mundy noted that the piece-goods like cassaes, ambarees and hammam of Orissa were available at Patna in Bihar. Forty years later, Thomas Bowrey observed that the various cotton manufactures of Balasore like sanas, gingham, orammalls and cotton yarn and other goods were sent to Patna.

Pipli, as a town was known for its cotton manufactures and it ‘produces the same commodities that Balasore does’. Hamilton observed that Pipili was an important centre of trade and it produced broad cloths and fine cloths of superior quality of different varieties like sannoes, dimities and mulmul.

Hariharpur is a village adjoining the modern Jagatsinghpur situated about twenty-five miles from Cuttack, was an important centre of trade and manufacture of all kinds of clothes. In 1633 after the English settlement, Mr. Colley purchased nearly 4,000 pieces of cloths at Hariharpur. The Company’s agent at Hariharpur wrote on 17th July, 1633 to Cartwright at Balasore that “I can get musters of cassaes

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112 Peter Mundy, op. cit., pp. 154-55.
113 Thomas Bowrey, op. cit., pp. 231-32.
which are now making……” at Hariharpur.\textsuperscript{119} In 1642, cassaes and sannoes were available there for export.\textsuperscript{120} Bowrey mentions that a considerable quantity of calicoes manufactures at Hariharpur were sold to the Dutch and English traders. He observes, “English and the Dutch are first to bring over land the textiles of Hariharpur to their respective factories at Balasore.\textsuperscript{121} Walter Clavell, the English factor observed in 1676 that ‘the cloth of Harrapore’ could be brought to Balasore easily by land.\textsuperscript{122}

The cotton manufactures of Puri was in a flourishing state in the thirties of the seventeenth century. Bruton mentions that taffataes and other cotton manufactures were produced in abundance.\textsuperscript{123} Ralph Cartwright, the English factor proposed in 1633 to send persons to Puri to procure cloth from that place.\textsuperscript{124} Tavernier found the people at Puri using calicoes.\textsuperscript{125} Fine white cloths were manufactured in Puri in the days of Manucci.\textsuperscript{126} Towards the close of the century it continued to be a cloth producing centre of Orissa. Abundant production of cloth at Puri has been referred by Hamilton in 1708.\textsuperscript{127}

Jaleswar was an important centre of cotton production in the early part of the seventeenth century and continued to the manufacture cotton cloths in the 70’s of the 17\textsuperscript{th} century as observed by Manrique.\textsuperscript{128} Master, during his stayed at Jaleswar

\textsuperscript{119} EFI, 1630-1633, p. 308.
\textsuperscript{120} Hedges’s Diary, Vol. II, p. CLXXXII.
\textsuperscript{121} T. Bowrey, \textit{op. cit.}, p. 129.
\textsuperscript{122} Master’s Diary, Vol. II, p. 84; EFI, 1642-1645, p. XXVII.
\textsuperscript{123} P. Acharya, \textit{op. cit.}, p. 201.
\textsuperscript{124} C.R. Wilson, \textit{op. cit.}, p. 421.
\textsuperscript{125} Tavernier, \textit{op. cit.}, p. 421.
\textsuperscript{126} Mannucci, \textit{op. cit.}, Vol. II, p. 402.
obtained cotton on behalf of the English East India Company.\textsuperscript{129}

Cuttack, in the early part of the seventeenth century was a great centre of trade and all types of cotton cloths, both coarse and fine were manufactured and were available at a cheap price. In 1708, Hamilton mentioned, the \textit{seerbands} and \textit{sannoes} of Cuttack were cheaper than that of Balasore.\textsuperscript{130}

Bhadrak and Jaipur produced \textit{sahana, barbara, dosnti} and \textit{tahti} varieties of cloth. Bhadrak was a town of about 1000 houses and weaving was the sole occupation of the inhabitants.\textsuperscript{131}

Balikuda, eleven miles south-east of Hariharpur was found in 1633 by William Bruton, the English factor, to be a centre for production of ‘colour fashioned cloth, which would have included cotton cloth.\textsuperscript{132}

Ganjam was an important centre for cotton textiles in Orissa. Production of much \textit{calicoes} specially \textit{betillies} was evident from the account of Bowrey in the seventies of the seventeenth century at the coast of Gingelly which extended from the river Godavari to Puri.\textsuperscript{133} \textit{Cassaes, mulmuls} and \textit{sannoes} were manufactured in Ganjam during the seventeenth century. The textile of this part of Orissa was famous for its quality as well as cheapness of price.\textsuperscript{134}

Balaramgarhi was also one of the important cloth producing areas of Orissa and situated nine miles east of Balasore.\textsuperscript{135} The English East India Company had established their subordinate factory at this place. The English Factory Records

\textsuperscript{129} Master's Diary, Vol. II, p. 86.
\textsuperscript{131} BPP, Vol. 4, 1909, p. 603
\textsuperscript{133} Thomas Bowrey, \textit{op. cit.}, p. 122.
Ship and Boat Building:

Ship and boat building was another important industrial production during the period under review. The ship-yards of a coastal Orissa produced cargo ships as well as fighting vessels. All the building materials were available in various places of coastal Orissa. With the advent of European factors, there was further development of the ship building industry in Orissa. Bowrey refers to the average tonnage of these ships of 400, 500 and 600 tons. Facilities for repairing damaged ships were also available in Orissa ship-yards. The sources are silent about the total number of ships produced per annum and their prices. At numerous yards in Orissa, the contractors employed “scores of wage” workers in building of various ships on private orders. It provided employment for a number of craftsmen and labourers.

In the seventeenth century Balasore was an important ship-building and repairing center with suitable dock-yards, which seemed to have developed further after the advent of the English. In the thirties the English factor Bruton described it as “Ballasorye” a sea town where shipping was built. In 1634 the English East India Company being in need of a small vessel for the transport of goods to the bigger vessels in the Bay, purchased a partially built vessel of about 100 tons from the ‘Governor’ of Balasore and soon after completing it and named it the Thomas.

The English Company had obtained the liberty by authority of the license “to build shipping, small or great, or any other vessels which they shall think best or fitted for their occasions be repair it”. By this time, Balasore was great sea town where

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138 Ibid.
139 A.I. Chicherov, Outline History of Crafts and Trade, Moscow, 1917, p. 235.
140 C.R. Wilson, op. cit., Vol. I, pp. 9, 12.
141 EFI, 1634-1636, p. 43.
142 S. Safiullah, “Mughal Shipping........”, PIHC, 1977, Bhubaneswar, p. 3.
too much ships and vessels were built.\textsuperscript{143} It is important to note the ships built in Balasore were used both in wars and voyages.\textsuperscript{144}

Besides Balasore, Kanika, Hariharpur and Pipli were also other ship and boat producing centres of Orissa. Mr. Yard who was in the service of the Company purchased a ship at Hariharpur and named it 'The Endeavour' and travelled by that ship to Masulipatanam in 1642.\textsuperscript{145} A good number of master builders and blacksmiths lived in Orissa during our period and Orissan ship at that time could be seen “in any part of the world”.\textsuperscript{146}

Besides ships, boats were manufactured at Balasore and other parts of Coastal Orissa. Boats and ships framed elsewhere were also brought to these centres for fitting. The English factors at Hugli decided at a consultation on 7th April, 1683 to build a boat at Balasore for the Ketch, the Arrival. In 1684, the Beaufort, a ship belonging to the English brought from Fort St. George to Balasore some framed sloops\textsuperscript{147} which were to be fitted there.\textsuperscript{148}

Iron:

Iron was one of the well developed and widely prevalent industrial production in coastal Orissa during our period. Iron was used mainly for the manufacture of tools, implements, arms or such accessories as nails, screws, horseshoes, etc.\textsuperscript{149} Since the people of the period were mostly agriculturists, for the manufacture and repair of agricultural implements the services of blacksmiths seems to be indispensable. There was also profuse use of iron in the construction of ships and boats. The use of iron clamps in Orissan architecture is noticed from ancient times

\textsuperscript{143} P. Acharya, \textit{op. cit.}, p. 190.
\textsuperscript{145} \textit{EFI}, 1642-1645, p. 77.
\textsuperscript{146} I.H. Qureshi, \textit{op. cit.}, pp. 256-57.
\textsuperscript{147} Sloop : A light boat.
\textsuperscript{148} \textit{EFI}, 1678-1684, New Series, pp. 365-66.
\textsuperscript{149} W.H. Moreland, \textit{India at the Death of Akbar}, pp. 148-150.
down to the medieval period. The ships built at Pipli and Balasore were fitted with guns and swords, javelins and other weapons of iron were made in Orissa during seventeenth century. William Bruton, the agent of the English in Bengal (1683-1684) says that large quantity of iron was found in the Nilgris (near Balasore) Hills in 1683. Alexander Hamilton (1708) refers that while he was travelling from Bhadrak to Balasore found on the way iron as a product of the place.

III. FOREST PRODUCTION:

The dense forest made plenty of forests products available and provided opportunities of employment to the people of coastal Orissa during the period under discussion.

Wood and Bamboos:

The manufactures based on wood flourished in our period are evident from the massive wooden structures built as described by William Bruton that ‘a great house of timber at Cuttack whose chambers were made with galleries and adorned with great arches.’ The carpenters manufactured that articles used in the construction of palaces, forts and temples. The other articles of woodwork included the manufacture of boats, carts, chariots (with wooden towers) and palanquins. It is probable that toys and articles for domestics uses were also manufactured from wood in Orissa during this period. The Chariot of Lord Jagannath was made of solid wood with a great deal of iron work. Hamilton records that the forests of Ganjam produced timber suitable for building purposes.

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151 T. Bowrey, *op. cit.*, p. 163.
153 Ibid., p. 67.
The western side of the Chilka lake was a region of bamboos. T. Motto found that plenty of bamboos were available in Narasinghpur in the district of Cuttack. These bamboos were most suitable for making poles for paplnquins. Bamboos were provided at Balasore for the use of the English Company.

Bee- Wax :

Bee-wax better known as mom was produced huge quantities in Orissa. Bee-wax was produced at various places in Orissa. The main centres of its availability were noticed in Puri and Alexander Hamilton found that bee-wax as a produce of Balasore and Ganjam. Master refers to an amount of sixty maunds of bee-wax were ordered at Balasore for the consumption of Fort St. George, Masulipatanam and Madapallam.

Lac :

Lac was produced at various places in coastal Orissa. William Bruton in 1633, mentioned about the manufacture of gum-lac at Puri. During the days (1708) of Hamilton, Ganjam produced stick-lac. Thomas Bowrey refers to the export of lac from the coast of Gingelly in the seventies of the seventeenth century. St. George records describe Balasore as a centre where stick-lac of the blackest variety was manufactured.

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158 Sundry Book, op. cit., 1677-78, p. 110.
159 P. Acharya, op. cit., p. 201.
161 Ibid., p. 209.
165 Thomas Bowrey, op. cit., pp. 121-22.
166 Sundry Book, 1677-78, p. 100.
Apart from the above discussed articles, coastal Orissa could produced some other important articles like salt, stone dished, ivory, shell, pottery, saltpetre refining, honey liquor and perfumery etc. All these were formed an important aspect of economic life of the people in coastal Orissa during the period under survey. Even there were surplus production of various articles, which could be exported to other parts of India as well as to the foreign countries.

Coastal Orissa produced fine quality of Salt. In the words of Sterling, “In this wild inhospitable tract however the finest salt of all India is manufactured. 167 Thomas Bowrey in the seventies of the seventeenth century referred to the manufacture of salt in Orissa by the people living by the sea side. 168 Reference are found in the factory records to the saltpetre refinement centres at Balasore and Pipli. 169 Thomas Bowrey in the seventies of the seventeenth century referred to the use of bangles made of the conch by the people of Orissa. 170 Stone dishes and cups made at Balasore were greatly prized in the market of Calcutta where duties were levied on these articles. 171 Thus, finally, it can be said that coastal Orissa was self-sufficient unit so far her productions were concerned and the presence of European factors and their trade gave great encouragement to its production.

167 A. Sterling, *op. cit.*, p. 5.


171 *BPP*, Vols. 79-80, 1960, p. 27.