

**Structural and Technological Changes in the Agriculture of  
Birbhum: 1947-1977**

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**Abstract:** *Birbhum, a district of West Bengal is known for its cultural values as well as its agricultural productivity. This region is one of the major areas for agricultural production. About 70 % of the rural people of this district are mainly dependent for their livelihood on agriculture. The soil and the climate were very much suitable for cultivation. The agricultural landscape of Birbhum district in West Bengal underwent notable structural and technological transformation in the three decades of Indian Independence. Due to the growth of population demand of crops increased which rendered the development and transformation of agriculture of this district. Even the use of technology like fertilizers, paddy- weeders, wheel-hoes, seed-drills, mould-board ploughs, pumps, cold storage made the way to the transformation. In this article, I would like to portray the structural and technological changes that occurred during the mentioned period. My study is also highlights all the changes such as population growth, productivity of the land, cropping pattern, structural development, Governments initiatives and technological advancement etc.*

**Keywords:** *Agricultural Productivity, Birbhum, Cropping Pattern, Development etc.*

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**Introduction**

India is a land of crops and greenery, which has been an agricultural country since ancient times. Most of the people of India depend upon agriculture, because even today agriculture is the main source for livelihood of the people of rural India. West Bengal is a state of India, which is well known for its agricultural products. One of the notable districts of West Bengal is Birbhum, it is also known as the land of red soil. This district is as famous for its cultural

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heritage as it is extremely important for agricultural productivity. It is an agriculture-based district, which is located in the northern part of the Burdwan Division of West Bengal. About 70% of the people of Birbhum have adopted agriculture as their only means of livelihood. Birbhum lies under three agro-climatic regions, namely: i) Gangetic alluvial region, ii) Vindhyan alluvial region and iii) Undulating red and laterite region. The largest numbers of people in this district depend upon agriculture. Birbhum is surrounded by various rivers, canals, and wetlands the soil of this district is quite suitable for cultivation. Even the climate of the district is favorable for agriculture. The general agricultural products of the district are rice, sugarcane, wheat, jute, various kinds of pulses such as gram, lentil, black gram, kurthi etc; vegetables such as potato, cabbage, brinjal, radish, tomato, carrot, cucumber, ridge gourd, bitter gourd; and various types of leafy green vegetables such as spinach, hench, shushuni, puin etc. In this article, I wish to portray the structural and technological changes that occurred during the mentioned period. My article intends to highlight all the changes such as productivity of the land, cropping pattern, structural development and technological advancement etc.

Local history or Regional history is generally described as a range of historical writings focusing on specific, geographically small areas. In the late 19<sup>th</sup> century, this process acquired momentum. Under the impact of industrialization, urbanization and migration, the local communities were de-stabilised and a crisis of identity emerged. Local history started as amateur attempts to promote the locality and community as a matter of pride. The trend was given an academic shape by the establishment of the first university department of local history in 1947 at Leicester in Britain. ‘El Mediterraneo y el mundo mediterraneo en la epoca de Felipe II’ of Fernand Braudel is an excellent work of local history. Carol Kammen described local history as, “a study of past events, or of people or group, in a given geographic area—a study based on a wide variety of documentary evidence and placed in a comparative context that should be both regional and national”.<sup>1</sup> So the validity and the importance of micro research can’t be denied. Professor Ranjan Kumar Gupta rightly says—“About the validity of local history there can hardly be any doubt, and its importance lies mainly in its contribution to our understanding of the history of the wider region of which the particular locality forms a part”.<sup>2</sup> Historical generalization are unlike the general propositions in science. But Professor Eileen Power makes us cautious about the generalization on rural history is that— “who commits himself to a generalization is digging a pit into which he will later assuredly fall, and nowhere does the pit yawn deeper than in the realm of rural history”.<sup>3</sup>

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The most popular unit of local history in India is usually the 'district'. Among the ones of the recognized work on local history was Sudhir Mitra's history of Hugli, 'Hughlee Jelar Itihas'. But in the case of birbhum Ranjan Kumar Gupta's 'The Economic Life of a Bengal District, 1779-1857,' which stands out as an example of how local materials can be handled and crafted into skilful history.

## **Debate regarding the Etymology of the District**

There are several opinions regarding how or why the name of Birbhum district became Birbhum. In the 'Sitahati' copper inscription it is mentioned that there was a king named 'Birsena'. The famous Sena kings such as Samanta Sena, Vijaya Sena, Ballal Sena, and Lakshman Sena were born in the lineage of Birsena. Some scholars think that the Sena kings named this region 'Birbhumi' after their ancestor 'Birsena'.<sup>4</sup> According to Sir William Hunter, "It means the land of the brave or Birbhumi".<sup>5</sup> Once the king of Bishnupur, while chasing cranes with the help of hawks in the hilly district of his kingdom, saw an unusual sight- he saw that the hawk was accepting defeat before the crane. Then he thought this soil is 'brave soil' and whatever will be produced from this soil will be full of courageous bravery and strength. Therefore, the king named this land 'Birbhumi'.<sup>6</sup> According to another theory in the Santali language the word 'Bir' means 'Forest'. So some scholars assume that the word 'Birbhumi' originated from the Santali language.<sup>7</sup> Again, Nagendranath Basu in his book "Banger Jatiya Itihas" said that centering around the village of Moulpur (former Moygalpur) under Mohammadbazar police station, there was a king named Birbar Singh, and Birbhum was named after him.<sup>8</sup> According to the local tradition- Birbhum means only the region brave kings; Bir was the title of its early rulers. Some scholar of this district says that since ancient times a tantric worship widely prevalent in this land was called 'Birachar' or 'Bamachari' (a tantric practice performed by a devotee united with a woman). In birbhum there clearly exist 'Sati Peethas' such as Nalateswari of Nalhati, Fullora of Labpur and Kankalitala of Bolpur. Since this land was famous for Birachar worship, it was named 'Birbhumi'.<sup>9</sup>

## **Physical Formation of the District and Rivers**

Birbhum district is located between 23° 33' and 24° 35' north latitude and between 87° 10' and 88°2' east longitude. The district is triangular land region bounded by Santal Parganas and Murshidabad district in the north and west; by Burdwan and Murshidabad districts in the

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east; and by Burdwan district in the south. The land here gradually slopes down from the west into the flat plains of the east. In the eastern part of the district landform similar to the lower plains of West Bengal are seen. In the western side, gradually elevated land with laterite soil is seen, beneath which there is a rocky base. In some regions of the district, narrow veins or layers of granite rock run beneath the soil and sometimes emerge above the ground. About 15 miles southwest of the district headquarters Suri there is a heap of granite rocks 30 to 40 feet high, which has been eroded by rain and sun heat and divided into uneven fragments. The district can be divided into three natural divisions- western, central and eastern. According to Captain Sherwill's survey and measurement, the western division consists of 1700 square miles or more than half of the area and is considerably above sea level. The central division covers 780 square miles of area. The eastern division measuring 631 square miles is the most important part economically. The country is more or less covered with dense forest, with numerous hills, and the forest passes were guarded by the Ghatwals.<sup>10</sup> As quoted in the 1961 Census Handbook of Birbhum, Birbhum once appeared to a traveler as- "A land of hill and dale, wood and water, abounding in scenery interesting to the geologist and lover of the picturesque. The climate also changes: the nights are, cool and clear; the damp and fog of Calcutta are left behind. Even the traveler sometimes calls the district of Birbhum highlands as 'the Switzerland of Bengal'".<sup>11</sup> Although the district was once forest-covered, over time it became suitable for agriculture.

The district is well drained by a number of rivers, rivulets and canals running in nearly every case from west to east with a slight southerly inclination. Though the Mor and Ajai are the main rivers of this district. Besides this two there are Hingla, Bakreswar, Sal or Kopai, Dwarka, Brahmani, Pagla, Bansloi etc by their flows well drained birbhum and its soil became more fertile. There were canals like Bakreswar canal and Kashinala, and different rivulets which are called kana or kandar also drained the district. The eastern portion of the district a continuation of the rice plain of West Bengal and the vegetation is that characteristic of rice fields in Bengal.

### **Soil and Climate**

In the western part of the Birbhum district red laterite soil is seen, which is highly porous, gravelly, low in organic matter and rich in phosphate. However in the eastern part of the district there is newly formed alluvial soil. The soil of the south-eastern part, north eastern part and southern part of the district are rich in old and new alluvial and are naturally loamy

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in nature. The climate of this district is generally the climate of this district is dry, mild and healthy. The main characteristics of Biurbhum's climate are intense heat, high humidity and sufficient rainfall during the monsoon. Generally, the hot weather lasts from mid-March to mid-June, the rainy season from mid-June to mid-October and cold weather from mid-October to mid-March although these do not always strictly correspond to these limits. The average annual rainfall of this district is 1303.7 millimeters. About 78 percent of the annual rainfall occurs between June and September. During summer, winds flow from the south-east and during winter from the north-west. In Birbhum, temperature begins to rise from the month of March. At that time the temperature remains between 35 degree Celsius and 45 degree Celsius. The coldest month of the district is January and may is the hottest period.

### **History and its People**

Before discussing in detail about the agriculture of this district, we should look at its history and its people. In the early beginning of history, a part of the district belonged to the land known as Rarh and another part to the land known as Vajrabhumi. A graphic description of the district can be found in the earliest Jain religious text "Acharanga-Sutra". The Rarh region was part of the territory ruled by the Mauryan emperors and later came under the Gupta Empire, and afterwards it became part of the empires of Shashanka and Harshavardhan. Later in the tenth century A.D. it clearly became part of the Pala Kingdom, and in the twelfth century A.D. it was under the rule of the Sena rulers. In the thirteenth Century A.D. the district came under Muslim rule. However, some parts of the district were under the Hindu Chiefs known as Bir Rajas. In the middle of the sixteenth century the district came completely under Mughal rule. Peace prevailed in Bengal until 1741, but in that year the Maratha invasion began. Sir William Hunter wrote about the Maratha expedition- "The Maratha spent their energy in plundering the intervening frontier trade of Birbhum and Bishnupur, where the dry soil and the undulating surface afforded precisely the riding-ground which their cavalry loved. There they could harry the villages exhaustively and in detail".<sup>12</sup> At that time the district was under a group of Pathan chiefs who were practically independent, though the district was under the Nawabs of Bengal. After the grant of Dewani in 1765, the district came under British supervision. The first commercial Resident of Birbhum was Mr. John Chip, who came to India in 1782 and held the post of Resident for 41 years and Mr. Keating was the first collector of the district.<sup>13</sup> After the accession of the Diwani to the East India Company in 1765 Birbhum was administered from Murshidabad until 1787. In

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consequence of the unsettled state of the country, it was constituted a district with Bishnupur in that year and continued till 1793. In 1809 the collectorship of Birbhum was abolished, and the district was again administered from Murshidabad, an assistant collector remaining in charge at Suri. In 1820, birbhum district was reconstituted a separate district, with the exception of a few estates which were transferred to the Jungle Mahals. After the Santal Rebellion Sarath Deoghar, Pabbia, Kundahit Karaya, Muhammadabad and part of Darin Mauleswar were detached from Birbhum. In 1879 Barwan Thana was transferred to Murshidabad and the thanas of Rampurhat and Nalhati (including the present thana of Murarai) were transferred from the Lalganj sub-division to the district Birbhum.

People of different religions, castes and occupations lived here. In 1941 the total population of Birbhum was 10,48,317 and in 1951 it was 10,66,889. In 1961 the population was 14,46,158 and in 1971 it was 17,75,909. People of different religions such as Hindu, Muslim, Christian etc. live here. We see various castes here such as- i) Bagdis- they are mainly engaged in cultivation, boat rowing, fishing and labour. ii) Sadgops- they are found throughout the district and cultivate extensively. Many of them practice zamindari. iii) Santals- they are believed to have come to this land at the end of the eighteenth century and were brought for clearing forests. They are mainly cultivators. iv) Muchis and Doms- the Muchis mainly make shoes, sometimes they are engaged in agriculture. The Doms make baskets, cultivate land and work as labourers.

The people lived here are of different religion, caste and occupation. In 1941 total population of Birbhum was 10, 48, 317 and in 1951 it was 10, 66, 889. In 1961 figure of population was 14, 46, 158 and in 1971 it was 17, 75, 909. There are people of different religion such as Hindus, Muhammadans, Christians etc. here we can found various caste such as- a) Bagdis- they are chiefly engaged in cultivation, boating, fishing and labour. b) Sadgops- they are found all over the district and are substantial cultivators. Many of them own landed property. c) Santals- they appear to have migrated to this country towards the close of the 18th century and had been brought in to clear the jungle. They are mainly cultivators. d) Muchis and Doms- muchis are mainly shoe-makers, sometimes they involve themselves in agriculture. Doms are basket makers, cultivators and labourers. e) Brahmans- they are Rarhi Brahmans and are zamindars, occupancy ryots, money-lenders. f) Mals- they are engaged in fishing, boating and cultivation. g) Bauris- who are mainly cultivators and field-labourers. h) Haris- they are mainly scavengers, sweepers and some are employed in cultivation. i) Lets- by occupation they are day-labourers, cultivators, net fishing etc. j)

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Bhollas- fishing is the occupation of the poorer. The others are mostly non-occupancy ryots and day-labourers. k) Jadupetias- by profession they are brass worker. There are some sub-castes viz- khetri, kusmetia, tentulia, chasi-konais, kurur konais, bhuinmali, dai, kahar, mehtar, etc. Although the people of the above mention caste and other sub-caste have their specific occupation, but they are mostly dependent on agriculture. L.S.S.O. Malley opined that Sixty nine per cent of the populations are supported by agriculture.<sup>14</sup> According to the Bengal District Gazetteers Birbhum, published in 1975- “on the whole about 74% of the total working population of the district are engaged in agriculture sector, either as a cultivators or as an agricultural labourers”.<sup>15</sup>

### **Agricultural Scenario**

Now we can move towards the details of agriculture of this district. Western part of the district consists of undulating uplands, which is less fertile and less productive. In the east of the district the land is low and of alluvial formation, that's why eastern portion of the district is more fertile and more productive. Land as distinguished from soil, is divided into 13 classes viz- i) Do land- it has rich soil, on which Aus or autumn rice is generally grown, besides gram, masuri, peas, wheat, linseed, khesari, til, sugarcane and occasionally cotton.<sup>16</sup> Do land are sub-divided into three classes- Awal, Doem, Some. ii) Suna Land- it is differ from Do land and having a smaller amount of moisture. All sorts of crops would be grown in this land, but the quality of produce is smaller the cost of cultivation is greater. Suna land are sub-divided into three classes that is- Awal Suna, Doem Suna and Some Suna. iii) Sali land- it is also divided into three categories such as Awal, doem and soem. The awal Sali land is suitable for aman rice khesari and til and produce good amount of crops. But other two type of Sali land have low production rate. iv) Jedanga-is a high and poor land only can grow arhar, san, brinjal etc one crop in a year. v) Olan meaning low land, it is fertile and can produce watermelon, kankur, lau or gourd, karala and khero, a species of gourd. vi) Pat-ami or mulberry land- it is particularly favourable to mulberry cultivation. vii) Jungle-bhumi- this type of land are reserved for the growth of Sal tree. viii) Pan-Baraj- is land on which betel grows. ix) Ghas land- it is reserved grass land and sub-divided into kati ghas and charai ghas. x) Sarbera- it is sandy lands where the Sar reed grows wild. xi) Bastu – it is homestead land, are divided into nijbastu and udbastu. xii) Salghor- it is fallow land on which huts are raised and mills are erected for storing and pressing sugarcane and boiling the juice into Gur or molasses.<sup>17</sup> xiii) Patit-jamior fallow lands and are sub-divided into the following classes-

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Shabek Patit, Hal Patit, Rosad Patit and Gochar Patit. This is the analysis report of the surface soil of some parts of the district are as follows;-

Name of the place	Moisture in %	Loss of solution in %	Coarse sand in %	Fine sand in %	Salt in %	Clay in %
Rampurhat	2.21	2.18	15.717	41.75	25.0	12.7
Nanoor	2.75	2.79	3.827	13.82	28.05	48.3
Dubrajpur	1.98	1.48	39.785	31.78	7.875	16.25
Ahmadpur	3.06	0.51	19.99	31.27	21.35	23.75
Visva-bharati(bolpur)	1.12	0.35	46.46	30.64	13.75	9.0
Mayureswar	0.532	0.85	40.3	34.75	11.6	10.7
Shahabagpur (p.s Illambazar)	2.36	1.34	11.86	24.50	21.05	37.97

( Sources: District Census Handbooks 1951, by A. Mitra<sup>18</sup> )

### Crops Speciality of the District

Principal crops of this district are rice, wheat, sugarcane, til, linseed, Indian corn, mustard seed, barley, gram, different types of vegetables such as- potatos, tomatos, brinjal, cabbages, bitter-gourd, gourd and various spices like onion, garlic, ginger, turmeric, green chili etc in a very small scale. Crops of this district are basically can be divided into two categories like- Rabi crops and Kharif. According to the season we can divided the crops of Birbhum in three categories such as- i) Summer crops included summer rice and summer til. ii) Winters crops included autumn rice or winter rice, jowar, bazra, maize, ragi, other kharif cereals, kharif pulses, winter til, jute, sunnhemp etc. iii) Spring crops included wheat, barley, other rabi cereals, oil seeds other than til, cotton, tobacco, potatos, rabi fruits and vegetables.<sup>19</sup> But the rice has been taken dominant position as rice being the staple food. Even it is also the sole means of the rayots for paying rents and purchasing other necessities of life. There are three types of rice are grown like Aus, Aman, Boro. Aman or winter rice is the most important crop of the district, the bulk of the cultivable land being reserved for it.<sup>20</sup> Aus rice was sown in March-April and was harvested from mid-June to mid-November. Aman rice was sown in July to August and was harvested in from mid-November to mid-February. Boro or Summer

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rice was sown in December to January and was harvested in from 1<sup>st</sup> week of March to mid-June. Wheat was second largest consumed food crop. Wheat was sown in the months of March and April on the ground which has just produced a fine crop of rice. Maize, Bazra and Ragi was cultivated on a very small scale as these were the supporting foods besides rice and wheat. The district produced a number of Rabi (spring) crops namely Gram, Mustard, Cereals, and Linseed. Oil seed like mustard was also cultivated in the district and it was sown in November to December and was harvested in February to March. It was one of the sources of audible oil side by side with til, which had grown two times in a year. Sugarcane and Cotton were the most popular with the ryots. Long before the English Company started its investment in sugar and goor (Molasses), sugar had been manufactured in Birbhum in quantities for domestic consumption and export.<sup>21</sup> Two kinds of Cotton were produced in the district: the white or the common kind and a reddish kind produced in the jungly part of the district towards Deoghar. There were two types of Mulberry grows in the district, the bara tut (large leaved Mulberry) and chhota tut (small leaved Mulberry) both high and low lands were used for its plantation.<sup>22</sup> Among the vegetables potatos acquired first position according to the size of land used and amount of productivity. Besides potatos, vegetables like brinjel, Cabbages, Radish, Tomatos, Cucumbers, Khero (a special type of gourd), gourd, Bitter gourd and Spinach, Letus etc were cultivated for domestic consumption. Radish was a popular vegetable in Birbhum.<sup>23</sup>

### **Structural Changes**

Now we look into the structural changes that have taken place in the agriculture of this district during the period of my research. Firstly if we look into the growth of population, it would be seen that the population has been gradually increased from 1947 to 1977. In 1951 total population of the district was 10, 66, 889, which have increased by 14, 46, 158 in 1961. Again in 1971 the number of people of this district reached to 17, 75, 909. During this last twenty years, the population of Birbhum have increased by 907,020 i.e. 66.45 per cent over its population of 1951. Total cropped area in 1947 was 824.6 thousand acres which have increased by 944.8 thousand acres in 1962-63.<sup>24</sup> By seeing above data we can firmly say that the increased number of population and increased cropped area indicates the structural changes. Population growth put pressure on agriculture that's why cropped area had also been increased. I am showing a comparison of crops and cultivated area in the year 1951 and 1961-

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Statement of Crop of 1951 District census handbook crops and cultivated area in acres		Statement of Crop of 1961 District census handbook crops and cultivated area in acres	
Aus rice	15,400.00	Aus rice	85,745
Aman rice	507,169.46	Aman rice	677,562
Boro rice	37.70	Boro rice	3,460
Wheat	8,858.45	Wheat	13,838
Barley	221.63	Barley	1,236
Gram (pulses)	8221.08	Gram	27,429
Other food grains including pulses	22,956.61	Other food grains	93,159
Linseed	418.50	Linseed	5,189
Til or sesamum	610.61	Til or sesamum	
Rape and mustard	645.66	Rape and mustard	988
Sugarcane	4,542.48	Sugarcane	17,297
Fodder crops ( <i>joar</i> and <i>kalai</i> )	181.01	Jute	494
Potato	5,910.54	Fruits and Vegetables (including root crops)	26,687
		Condiments and Spices	471
		Bazra	247
		Jowar	247
		Maize	1483

(Sources: District Census Handbook Birbhum of 1951 & 1961.<sup>25</sup>)

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Now we look into the second parameter to check structural changes that is productivity of the district. Here we can see the available data which shows the amount of yield per acres are as follows:-

Name of the certain crops	Yields (Maunds per acres) in 1951	Yields (Maunds per acres) in 1966
Aus rice	15	13.65
Aman rice	18	16.38
Sugarcane	90	414.77
Gram	12	
Mustard	4	
Wheat	12	5.84

( Sources: District Census Handbook Birbhum of 1951 & Bengal district Gazetteers Birbhum 1975.<sup>26</sup> )

The above data shows that the yield per acre was higher in 1951 than that of 1961. There may be some reason for such condition as fertility of the soil, quality of seeds, condition of weather, attacks of the insects. Due to unavailability of data we could not surely indicates the actual cause of this decline in productivity.

We now took a look on improvements of irrigational system of the district. The district having, for the most part, a Porous soil and rapid drainage, artificial irrigation is necessary in years of scanty rainfall, especially for rice grown on terraced slopes. When the rainfall is ample and seasonable, there is little need of it. Up to 1947 there was one major irrigation work and one minor irrigation work in the district. The major irrigation work was the Bakreswar Canal and the minor irrigation work was known as the Kashia-nala irrigation scheme.<sup>27</sup> In the year 1949-50, in birbhum total area irrigated was 522,630 acres of cultivable land. In 1967-68 irrigated area under Mor project 40,000 acres, under minor irrigation scheme 300 acres, under river pump irrigation scheme 4000 acres of land.<sup>28</sup> Here we can see the list of certain minor irrigational scheme completed-

Scheme	Station	Area of Benefitted Land (in acres)
Khoskadampur Bundh	Bolpur	20
Surul Bundh	Do	80

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Surul Canal Excavation	Do	34
Bundhgora Bundh	Do	34
Laikbazar Bundh	Do	57
Sarbanandapur Bundh	Do	132
Debanandapur Bundh	Do	93
Lalda Bundh	Do	40
Heer Bundh	Rajnagar	12
Dakshin Kali Bundh	Do	11
Satyakinkar Bundh	Do	11
Kitchin Bundh	Do	6
Kali Bundh	Dubrajpur	11
Sakor Bundh	Nanoor	20

(Source:- District Census Handbook Birbhum of 1951.<sup>29</sup> )

Above mention data clearly states that there was a radical changes taken place in sphere of irrigation system to improve in agricultural production for meeting the need of the time. It can obviously be said that irrigation system changes the agricultural scenario of birbhum. It has been possible for the project authorities to assure larger irrigation for a larger area during Rabi season and the area under Rabi crop increased to about 6,800 acres in 1968-69.<sup>30</sup>

### **Technological Changes**

Here we may discuss about the changes had taken place in technological advancement and its utilization in the field of agriculture. Firstly introduced of double cropping system brings changes in productivity. In 1941 there were only 7,328 acres of land under double-crop cultivation, but in 1951 the area under double cropping was 17,819 acres of land.<sup>31</sup> It was the indicator of structural changes. Due to the advancement of science and technology in Birbhum provision were also made to distribute improved agricultural equipments like ‘paddy weeders’, ‘wheel-hoes’, ‘seed-drills’, ‘mould-board ploughs’ at a subsidy of 50 per cent of the cost.<sup>32</sup> Even the use of fertilizers also helps the peasant of birbhum to make progress in agriculture. Numbers of warehouse and cold-storage has been increased, in 1968 there were four cold-storage operated here. Even with the help of Agricultural Department 472 shallow tubewells were shunk for irrigation purposes. During 1965-1969 almost 932

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pumps were also distributed by local Agricultural Office. Agricultural farm has been established and high yielding paddy and wheat seed was used for demonstration. Co-operatives played a crucial role in the development of agriculture by giving loan to the farmers. Lastly it should be noted changes only possible by the help of the government and obviously the changing mind set up of the peasant of Birbhum district.

## Conclusion

After discussing and analyzing all the data in conclusion we can say that Birbhum was a major agricultural productive area of West Bengal. After the Independence of India agricultural scenario of all over West Bengal as well as Birbhum has gone through a transformation. As the population increased the area of cultivation also increase, even double cropping was introduced in this district. Due to the use of high yielding seeds and the utilization of fertilizers productivity has been increased. After all the infrastructural changes make the way easy such as established cold storage, use of pump for irrigation, sinking of tubewells by the Agricultural Departments. So finally we can say that in the agricultural sector of Birbhum district a notable transformation has been taken place during the time period of my research.

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<sup>19</sup>Ibid., p- 103.  
<sup>20</sup>Ibid., p- xxix.  
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<sup>24</sup>Mazumdar, Durgadas, op. cit., p-189  
<sup>25</sup>Mitra, Ashoke, op. cit., p- xxxiii. And Ray, B., op. cit., p- 93.  
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