CHAPTER – 2.

GEOGRAPHICAL – BACKGROUND OF THE STUDY AREA

Lucknow, the capital of Uttar Pradesh is situated 123 m above sea level. It is situated on 26.30 & 27.10 North latitude and 80.30 & 81.13 East longitude. Lucknow covers an area of 2528 sq km. it is surrounded on the eastern side by District Barabanki on the western side by district Unnao, on the southern side by Raebareli and on the northern side by Sitapur and Hardoi districts. River Gomti flows through the city. Some of the tributaries of this river are kukrail, Loni Beta etc. Sai river flows from the south of the city and in the east enters district Raebareli. The population of the district Lucknow as per census 1991 is 27,62,801 lacs. District Lucknow has almost uniformed tropical climate. The temperature varies from 45 celcius maximum in summer to 5 celcius minimum in winter season rainfall is 100 cm. per annum.

It is one of the smallest districts of Uttar Pradesh and consists of three tehsils which are further sub divided into eight development blocks. The tehsils are Mohanlalganj, Lucknow and Malihabad. The areas covered by them are 695, 982 and 851 square kilometers respectively.

(A.) PHYSICAL

Lucknow district is almost even in nature. It is the part of the plain formed by the Ganga and Gomti with their rediment deposits. Though the physical division of the district is not very conspicuous still it can be divided in to three parts for the study purposes.

1. The catchment area of the Sai River.
2. The central plain.
3. The Gomti Basin.

The catchment area of the sai river lying in the south and the south-east is not very fertile and its usar land is very conspicuous to the great extent.

The central plain is the most fertile part of the district and a little bit higher than the surrounding areas forming a watershed.

The Gomti basin. Uneven in nature, is full of small streams which join the river from its left side. The basin comprises of the north-eastern parts of Mohanlalganj, a part of Malihabad and the central part of Lucknow tehsil.

LAND SURFACE

Since thr entire district is very much even, no. surface configuration is visible except some erosions local in nature. At places deep ravines are seen which are small in size.

The slope of land is very gradual and it is 43' in 45 miles hardly one foot per mile. The height of 450' from the sea level near Mohana in the extreme north and 372' in the extreme south east of nagram corroborates the facts given above.

GEOLOGY , STRUCTURE

The Lucknow district is a part of the great plain of India i.e. gangetic plain. This plain is made of sediment deposits in a syncline which is spread longitudinally from west to east. The vertical cross- section of the depth of the alluvium shows the coarse sand and sandy silts with beds of clays and kankars. The thickness of alluvial deposits is not uniform and varies from place to place. According to Oldham, it is from 1500' to 2000' along the northern extremity. Wadia is of the view that it thickness is from 4000' to 5500'. The borings reveal the thickness decreases from north south. So for the thickness in the Lucknow district is concerned it is between 1500' and 3000'

The various geologists here given different interpretations for the motion of the vest plain. The syncline was formed when the drifting of the

Himalayas towards south was obstructed by the Deccan plateau according to Suess an Austrian geologist. Mr. BURRARD opined that the syncline was nothing but a rift valley caused due to faulting. Mr. Krishnan, a renowned Indian Geologist is of the opinion that the northern plain of India is a product of the Tetchy due large scale sedimentation and compression.

The formation of the great plain of India could be possible because the sedimentation followed the depression as per the opinion of Mr. Wadia and Mr. Auden.

Hydrogeology reveals that the area is underlain by quaternary alluvium consisting of clays, occasional kankars, and sand of various grades in different proportions. The sandy horizons at different depths from the main aquifer of ground water in the area. The area can be broadly divided into two geologic units namely younger and older alluvial plains. The younger alluvial plain lies all along the river Gomati and forms a wide flood plain. The older alluvial plain occupies higher level than younger alluvial plain along with uplands and as natural levies, paleo channels and meander scars.

The older (pleisto cane) alluvium found in this area is known as ‘ Bhangar’ and as rule occupies higher ground (WADIA ,1975)

Generally the alluvium is fairly stiff clay with low sand contents. In the 'Bhangar' there are irregular limy concretions (KANKAR) in the sub –soil zone and places is much calcareous matter in the alluvium.

There are also stretches of barren saline efforescane known as 'Reh' or ' Kallar' numerous ravinessor dissected are found along rivers Gomti and Sai its tributaries.

RELIEF

As a whole this district is considered to be a fairly level plain. There are almost raving for a few kilometers on both sides of river SAI. The southern portion in the immediate neighborhood Gomti is more densely wooded then other parts. In a few places may be seen stretches of uncultivable area. The gentle slope of the districts from north west to south east . The general aspect of the area is strongly influenced by the rivers and streams which pass through it.

River Sai divides the district into two physiographic units, The larger part. of which lies in the south. There is narrow belt of light sandy soil on both sides of the river SAI. Further away on each side, there are levele tracts of Bangar , Which from the main feature of the districts ,

DRAINAGE

The drainage system of the study area includes the Gomti and Sai river's with a number of rivulets and streams. The main direction of the system is from the north – west to the south – east.

The Gomti being a perennial river is the most important river system of the district. It enters from the north forming mainly meanders between Mahan and Malihabad the river valley is very narrow in the Lucknow tehsil but its course becomes wide after leaving it. It again becomes narrow between Mohanlalganj and Lucknow. before it enters Barabanki district the Loni river joins it.

The tributaries from the lift side are the Loni , the Behta , the Jhilingi and the Arakaddi. From the right side it is joined by the Khukrail, the Reth and some streams .

The Sai is the next to the Gomti in importance. It flows in the southern and southern and south eastern parts. Though it does not drain much water but it is a perennial river. Its course is narrow and not very deep. The tributaries are the Bankh and the Nagwa which join from the north.

Besides the river –systems discussed above there are lakes and ponds which cater to the need of the people in the periods of scanty rainfalls. The Karaula and and the Sissendi are big lakes and are used for irrigation. A good number of lakes exist between Nagram, Gosainganj and Mohanlalganj. Of course all these lakes are very shallow and their storage capacity is very little They are not much dependable in the times of draughts.

At places there are swamps which invite water- birds and give shelter to them.

The Gomti and the Sai have been causing floods during reasons. The people living in the villages situated on are near the bank have been facing the calamity almost every year.

The lowland areas suffer more comparison to the areas well protected by the bunds in the towns and cities. By and large the Gomti and the Sai are suitable neither for irrigation nor for navigation. The drainage-system my be seen in (Fig – 2.1)

CLIMATE

The Lucknow district is no exception to the subtropical monsoon type of climate of India. The three seasons rainy, winter and hot summer are perceptible. The weather conditions are regularly recorded by the " observatory at Amousi Aerodrome and at C.D.R.T. , Lucknow.

TEMPERATURE

The temperature is controlled by the following factors during winter,

(1) The origin of anti cyclone in the indo-gangetic plan.

(2) The oblique rays of the sun during the winter.

During the winter season normally the days are bright. Lowest temperature goes to 2.7 Degree Centigrade. The mean diurnal temperature is felt between 12.0 Degree Centigrade and 14.0 Degree Centigrade. The winter is affected by the Himalayas and when there is heavy snowfall there, the study area perceives cold waves.

The winter season starts from November and lasts up to the middle of March. The important characteristics are high at atmospheric

pressure (995.4 mb) low temperature (between 12 Degree Centigrade and 14 Degree Centigrade in December and January) and scanty rainfall (about15 mm.). The humidity is moderate and relative humidity is between 60% and 70 % during the season the sky is almost clear, the weather is fine and relishing.

The January and February at times clouds appear in the sky and rainfall occurs. Some times hails do fall which cause damaging effects on rabi crops . The average rainfall during the season is about 950 mm.

SUMMER SEASON

From the middle of March the summer season starts and lasts up to the middle of June. The climatic condition are very dry and hot and temperature rises to 40 Degree Centigrade causing very low atmospheric pressure (980.3 mbs) The humidity is a very low i.e. 10 % to 15 % and rainfall is very scanty almost negligible (less then 20 mm.)

RAINY SEASON

The period of rainy season is from the middle of June to October. In the season the average temperature is between 30 Degree Centigrade and 37 Degree Centigrade and atmospheric pressure is between 979.6 mbs and 985.8 mbs. The maximum rainfall occurs during the season. The humidity goes upto 85 % during this period.

The base of hydrological cycle and the most important sources of water is rainfall. The district gets a good deal of rainfall during rainy season from the summer Monsoon and winter cyclones originating in the Kashmir valley give very little rains The movements of summer monsoons as well as of cyclones are controlled by temperature, atmospheric pressure and wind directions in various seasons .

The rainfall in the summer month plays a very pivotal role and the entire kharif crops depends upon that the fortunes of Mohanlalganj and Malihabad tehsils which are the agricultural belts of the district are controlled by the summer Monsoon.

Undoubtedly the summer rainfalls are most uncertain in time, amount and nature.

SOILS

The soils of the district are alluvial in nature Which have been deposited in the form of sediments brought down by the rivers and streams originating in the Himalayas. Of course the nature and texture of the soil very from place to place.

On the basis of Chemical characteristics, Morphology and Texture, The soil of district may be grouped under the following heads. (Fig. - 2.2)

(1.) CLAYEY SOIL

(2.) LOAMY SOIL

(3.) SANDY SOIL

(1.) CLAYEY SOIL : -

It is composed of SAIL i.e. silica and aluminum containing sufficient moisture. The soil is very good for paddy crops and

found mainly at a distance from the rivers. This soil has been subdivided in two i.e. Karail and Reh. Karail is very fertile. It contains organic matters and little bit sticky when wet and develops cracks when dry. Reh is not fertile at all the nothing grows on such kinds of soils.

LOAMY SOIL

This soil is mixture of silt and sand. Its main constituents are salts, magnesium and iron oxides. When properly watered it gives a very good yield. The main crops which are grown on such soil are sugarcane, wheat, barley grass etc, The soil is known as domat locally.

(3.) SANDY SOIL

It is very clear from the nomenclature that sands predominate over silt. These two are the main constituents. Such soils are found near the banks of the gomti and the sai river s. The main crops grown are Arhar and Bajra. Gardens of guava, papaya are seen in bulk. Watermelons etc. are also growth here

FLORA AND FUNA

The forest area is negligible in the district. Shisham (Dalberga Sisso), Dhak (Butea Frodesa), Mahua (Bassia Iatifolia), Babul (Acacia Arabica), Neem (Azadirachta Indica), Peepal(Ficus Religiosa) , Ashok, Khajur, Mango (Magnifera Indica), Sal (Shorea Robusta), Ber (Ziziphus Gonjubo), Semal(Bombay Malakeriem), Barged (Banyan Ficus Judica), Jamun(Syaygium Cumuni) Gular, tree are grown here. In fact different varieties of mangoes specially Dashari are grown in Malihabad block of the district and exported to other countries too. The main crops are wheat, paddy, sugarcane, mustard, potatos, and vegetables such as cauliflower, cabbage, tomato, brinjal, are grown here. Similary sunflowers, roses, and marigold are cultivated on quite a large area of the land. A part from this many medicinal and herbal plants are also grown here.

(B.) ECONOMIC

The agro- industries assume great significance in the context of developing countary like India where agriculture accounts for over 35

percent of the national income and about two thirds of the working population. We also need to bear in mind that over three – fourths of Indian population live in rural areas. Agro – Industries have great priority in the rural areas since they could be instrumental in fostering strong linkages between the agricultural and industrial sectors, and in enhancing the employment potential. It would be a fallacy to think in terms of industrial development without bringing about the requisite development in agriculture as the latter acts as a basis of economic initiatives and source of row materials for industries.

The establishment of naturally beneficial linkages between industry and agriculture is one of the central themes of the development process. Support of industrial activity is one of the basic requirements to increase productivity in the agriculture sector. Improving the agricultural productivity would create an agricultural surplus which in turn would encourage the growth of output and employment in industry.

The level of agricultural income determines the size of domestic demand for manufactured goods and the size of domestic savings which become available for investment in human and physical capital.

An increase in agricultural production constitutes and a sound basis for rapid industrialization. The rate of the growth the industries using agricultural produce as input could grow only if the supplies of such input increase at an adequate rate. The rate of progress in industrialization in most developing countries is influenced by the rate of increase in food supplies. This is so because the marginal propensity to consume tends to be higher in the developing then the developed countries. In the developing economies, a rise in income following industrialization brings about a relatively larger increase in consumption demand. At lower level of income, food tends to account for larger share of family budgets. Therefore, an increase in consumption demands, following the growth of non –agriculture sector and income there from, considerably raises the aggregate effective demand for food. Obviously, the income elasticity of demand for food tends to be higher in developing economics.

Agro-industries play a very important role is strengthening industrial and agricultural linkages. These provide an excellent nexus in promoting integrated development of agriculture and industry and transforming a stagnant rural economy. This make decentralized planning a reality and there by help in formulating a plan strategy- based on area.

Agro –based industries are those processing industries which use large quantities of agricultural raw materials such as rice milling . Wheat flour processing, textiles, sugar, tea , jute, paper, paddy, pulses, maize, corn, oil, seeds, fruits, potatoes, etc. These industries account of about 45 percent to the total.

The Indian experience in the past years reveals that the non- availability of raw materials or prohibitive cost of these raw materials has weakened the viability of the agro –based industries. Over the years, it has become clear that unless a strong raw material base in rural areas is created, the agro-industries with employment potential can not be sustained. What is needed in the context is the formulation of suitable policy and programmes to strengthen and build up the raw material base.

Another area where the industry has not gone desirably in to is the food processing. Considering the fact that agriculture is still the mainstay of our economy, The Lucknow district food processing must be the logical next step. Otherwise, the farmers would find that rapid increase in their economic growth is stalled and they are not finding the outlet. They would be largely disadvantaged specially in those area where the farmers have done well and they have a lot of surpluses which could be picked up by the processing industry.

Over the last couple of decades, the rural scene in Lucknow district had undergone tremendous changes while agricultural production has also gone up substantially. At the same time, however, these changes have not brought about adequate or any improvement in the living conditions of the rural poor. The main reason for this situation is that landless agricultural laborer and small marginal farmers do not have sufficient income from agricultural vocation to make both ends meet or to sustain a reasonably comfortable life. It is also true that increased investment in agricultural raised productivity but it has not ensured a corresponding increase in employment. It is estimated that more then 50 percent of the farmers and the agricultural laborers need to be provided with subsidiary occupations to improve their economic position. Somehow, the investment syndrome diluted our enthusiasm for developing programmes that could create more and more subsidiary occupations for our small farmers.

In view of the great and practical relevance of agro-industries in Lucknow district context, the stratagy for their development would comprise the following –

(1) The growth and expansion of agro- based industries form an inseparable part of the overall programme for economic and industrial development

(2.) The related groups of agro-based industries have to be set in a co-ordinated manner so that the utilization of by products can be possible simultaneously.

(3.) Advanced management and marketing methods need to be introduced in agro-based industries which cater to the export market.

(4.) Both the backward and forward linkages are to be ensured in respect Lucknow agro-based industries so that maximum growth impulses are generated.

(5.) Suitable strategies have to be formulated to promote rural savings and laughing them in rural areas for productive investment through attractive deposit and credit instruments. Necessary steps have to be taken not only to improve the credit deposit ratio for rural credit institution but also their absolute levels to have meaningful effects.

(6) Extension and dissemination of information through mass media technology development, research activity and training programme need to be improved.

AGRICULTURE

Agriculture is the mainstay of the Lucknow population. Our economy is mainly agriculture based. Since independence for a pretty long period the development planning process has been having an urban industrial bias. Decentralized development strategies and bottom–up approach have been adopted by the government of Lucknow recently and the rural areas are being given due weightage. Integrated rural development programmes (IRDP) is being extended to all the development blocks. A block has become a planning unit for achieving the goals of removal of spatial disparities, rural poverty, unemployment, exploitation etc. It has become the most important centre of micro-level programmes which play a very predominant role in planning the strategy to introduce the integrated rural development programme for the spatial development. The IRDP is paying very serious attention to the needs of all the sections of the society with the special stress on land class, scheduled castes , scheduled tribes, women and children. It has pervasive effects on the people because it believes that self –

dependence and self –reliance should start at the grass-root level in the rural areas.

In this context four major areas of development have been given due consideration as the task of the rural development. They are social organization, spatial restructuring. Institutional building and legal reforms the measures. The programmes ha included the measures given below : -

(1.) Delegating more power's to the peoples institution,

(2.) making economic activities self-sustaining and complementary to social services.

(3.) Increasing and propagating awareness among the people.

(4.) Supplying technology according to the level and ability of the community.

The pattern of human settlement spatial distribution and density of population exert great impact and influence on the economic social and political conditions in rural areas. The integrated and rural

development programmes is really a very effective method through which social justice, economic growth, and potential consciousness can be made

possible very successfully. today it is felt that every rural development plan, programmes and strategy should be need – oriented, self- reliant ecologically sound, indigenous and based on the transformation of the social structures.

The area under study constitutes 918 villages with the total area 2528 sq. kms. Since more then 90 % of the population directly Orin directly depend on agricultural activities, Agriculture plays a pivotal role in the development of the district. The importance of agriculture is very much clear from table – 2.1

According to the land-use pattern the area under agriculture is 59.5 percent where as fallow land accounts for 13 % and cultivable waste 5.5 % it is very much evident from (Fig –2.3) That rice and wheat are the most important crops grown in the district and both combined together cover an area of about 70 % further the table shows that there is very bright scope of agriculture-based industries specially in rural areas. This will definitely add to the poor earnings of the rural population during off – time

when the people are free from agricultural activities. Small scale and cottage industries will provide ample opportunities to the people who are unemployment and partly employed.

This will contribute to the enhancement of the economic standard of the village people.

Table No. 2.1

A GLANCE AT STAPLE FOOD PRODUCTION :

S.No.	Crops	Area Under cultivation (In HEC.)		Production in 000 tons	
		Rural	Urban	Rural	Urban
1.	Wheat	76.94	0.71	128.23	1.17
2.	Pulses	23.28	0.22	27.83	0.27
3.	Paddy	47.12	0.53	44.14	0.49
4.	Millet	12.86	0.16	06.46	0.008
5.	Barley	0.67	0.01	5.43	0.01
6.	Maize	3.90	0.80	0.25	0.005
7.	Oil seeds	2.43	0.01	1.20	0.006
8.	Potato	6.36	0.26	112.09	4.62
9.	Sugar cane	0.92	0.002	32.24	0.07

Sources : - District statistical bulletin Lucknow – 2001,

PRODUCTION OF DIFFERENT CROPS

In this table no – 2.1 block wise production shows that there is no dearth of various products grown in various blocks.

The blockwise study reveals that there is a very bright scope for the start of small scale industries and for that more production is needed.

In Bakshi – ka Talab wheat – milling, rice making, barley-processing industries may be developed. Industries based on potato may be considered as well.

In Sarojininagar block flour – making, rice –making, Sugar – manufacturing, Pluse- making, oil – crushing, paint – making, soap – making industries may be encouraged various kinds of chemicals may be manufactured from by the products of sugar industries.

Keeping in view the teeming millions of the district we are not to be satisfied with the present agricultural production. Agro- based industries can function only when there is surplus production to be made available for industries as raw materials.

Table No. 2.2

BLOCKWICE AGRICULTURAL PRODUCTION AND DISTRIBUTION

Production given in tons.

Area given in hectares,

CROPS		DEVELOPMENT BLOCKS.							
		1. BAKSI KA TALAB	2. CHINHAT	3. GOSAINGANJ	4. KAKORI	5. MOHANLAL GUNJ	6. MAL	7. M.BAD	8. S NAGAR
Wheat	Production	24965	15714	18987	12377	21870	16346	14663	22867
	Area	13836	7144	9599	6973	11960	9049	6502	11867
Paddy	Production	9358	2897	6978	3782	13816	2845	2462	7863
	Area	9157	2773	6992	3800	10979	2931	2397	8101
Millet	Production	902	1279	805	789	803	1095	759	972
	Area	1812	2169	1604	1256	1384	1840	1100	1715
Maize	Production	17	19	06	49	03	52	79	49
	Area	273	226	59	731	19	751	1102	665
Barley	Production	795	445	268	897	846	1645	480	1092
	Area	628	312	155	731	683	1280	314	760
Oil seeds	Production	383	317	376	42	92	269	35	169
	Area	513	393	612	86	250	280	65	233
Sugar cane	Production	13986	2585	9893	329	5372	701	419	2765
	Area	339	67	254	08	146	17	09	71
Potato	Production	31732	23539	8845	20763	9205	1089	8628	7539
	Area	1674	1233	436	1103	480	544	469	427
Pulses	Production	3983	2885	3251	2926	4704	3755	3267	4694
	Area	3830	2551	2775	2313	3594	2713	2417	3125

Source district statistical bulletin , Lucknow -2003

NET IRRIGATED AREA

The table no- 2.3 reveals that all the block are equally irrigated. In Bakshi – ka talab about 68.20 % of net sawn area are irrigated whereas mal has only 58.30 % This percentage varies between these two ends. If it is managed to bring 100 % of the sown area under irrigation definitely the production will increase. The Importance of agriculture can be very well visualized from the fact that 93.7 % of total workers are employed in agriculture in mal which is the highest in the district. The minimum percentage is seen in sarojininagar (75.1 %). The sector which gives employment to such magnitude of the population must be taken due care.

The picture of food production is not very encouraging in the various blocks. The per capita food production various between 176 (in Malihabad) and 278 (in Mohanlalganj). The consumption of fertilizers per hectare land of the shown area is maximum (127.3 kgs.) in Gosainganj and minimum (64.1 Kgs) in Mal. This picture shows that if the people are encouraged to use more fertilizers the production will rise in the same proportion. This becomes more essential when we see that a very high

percentage (91.3 % in Mohanlalganj) of land of sown area is under food crops. This percentage is high almost in all the blocks.

NET SOWN AREA

About 55.7 % of the net sown area of the district is under irrigation. Roughly 83834 hectares of land are irrigated . If we take in to consideration the entire cultivated area of the district we find that only 32.6 % are irrigated by various means. The total cultivated area is 250757 hectares whereas only 83834 hectares are under irrigation.

About 37.92 % of area canal irrigated where as 8.01 % and 1.6 % are irrigated by well and other sources respectively. More then fifty percent of the area i.e. 52.44 % are irrigated by tube wells. Thus it is very clear that tube wells are the most important and reliable sources of irrigation. The irrigation by tube-wells plays a very important role in growing various crops in various parts of the district. The areas where there is proper facility of irrigation produce two crops in a year. The table no-2.3

throws complete light on the irrigation of the district. The development means of irrigation have direct impact on the cropping pattern of the district

PRODUCTION OF DIFFERENT CROPS

The main crops of the district can be studied under two heads – Ravi and Kharif, Rice, Millets, sugarcane, and summer or kharif crops while wheat, gram, barley, and pulses come under ravi crops. Sugarcane is a cash crop which does not grow in all the blocks. Among kharif crops paddy is very important which is grown predominantly in bakshi –ka talab and Mohanlalganj . Wheat is the must important ravi crop and grown mainly in Sarojninagar and bakshi- ka Talab blocks. Millet is very important in chinhat and kakori blocks. There can not be two opinions that the largest portion of land under cultivation gives priority to cereal crops in all the blocks. non –cereal crops are grown in a very small area.

SURPLUS PRODUCE

Surplus produce of Lucknow district " Typical an under development agricultural economy in which must of the cultivated area. Is deviated to subsistent food crops. Mainly for local consumption and the immediate market, While the cash crops receive only negligible percentage of the 87.9 percent of the regions area while oil –seeds, pulses and commercial crops have percentage share of 2.6, 6.5, and 3.0 respectively whit, rice and gram are the principal crops of the study region occupying 69.7 percent of its cultivated area.

Amongst the three cropping seasons ravi (winter crop) is by for the must important one covering 53.72 percent of the total cropped area in 2000- 2001 followed by kharif (84.38 %) and zaid (0.90 %) crops. Wheat is the principal ravi crop occupying 30.9 % of the total cropped land following by gram (15.4 %) Barley (5.4 %) oil seeds (2.6 %) and potato (0.81 %) highest concentration of ravi acreage (57.84 % is found in Malihabad block followed by four other blocks whose acreage is above the regional average bakshi ka talab block records the highest percentage of cropped area under kharif crops (48.95 %) followed by Mohanlalganj. (

47.87 %) sarojninagar , Chinhat (46.52 %) Mal (46.41 %) and Kakori (46.05 %) etc.

CROPPING PATTERN

Cropping pattern has significant bearing on estimating the crop loon requirements. Cropping pattern is controlled by the epidemic, climatic, and demographic characteristics. The soil and climatic condition determine the type of crops, and its demand by the people necessitates the cultivation of particular crops.

(Husain Majid . 1970.)

The area under study is one of the most agriculturally pattern differs from country to country, state to state, district to district and even in same district from village to village depending upon such physical and economic factors as temperatures , rainfall, humidity, soil. Prices and market situations etc. (Singh, Singh and Singh, 1977)

The area under study is no exception. The major crops of the area are Rice, Jawar, Bajara, Wheat, Barley, and Gram etc. The total cropped area is 316872 hectares. The crop1 and of the area is dominated by " kharif " crops occupying about 31.05 percent the Ravi crop occupy less area as compared to ' Kharif ' crops i.e. 26.36 percent . The percentage of double cropped area to the net area sown is 18.22 percent. Paddy (24.03 percent) wheat (17.10 percent). Bajara (6.31 %) Barley (15.82 percent), Arhar (3.11 percent) .and gram (0.33 percent) are the chif crops, whil sugarcane , peas, and pulses etc. occupy relatively smaller percentage of land.

Obviously, agriculture is the main stay of economy of the inhabitants of this area. The uncertainty of rain fall both in quantity and frequency have been resulting in frequent droughts and floods. The soil of this area is very fertile and suitable for intensive cultivation. The crops are generally classified in the three groups depending upon their periods of sowing, Ravi, Kharif, and Zaid, Ravi period is from October to march, kharif from july to September, and Zaid from April to June . The main crops are as under :-

RAVI :- The Rabi crop is the spring harvest also known as the “winter Crop’ in India. The term Rabi means “spring” in Arabic, when the crop is harvested. Major Rabi Crops are Wheat, Barley, Gram, Oilseed,

KHARIF : - The Kharif Crop is the autumn harvest also known as the summer or monsoon crops in India. Kharif crops are usually sown with the beginning of the first rains in July, during the south west monsoon season. The term Kharif means “autumn” in Arabic when the crop is harvested. Major Kharif crops are Paddy , Maize, Millets, Moong (Pulses), Sugarcane, etc,

ZAID :-In India, the crops grown on irrigated lands which do not have to wait for monsoons, in the short duration between Rabi & Kharif crop season, mainly from March to June, are called Zaid crops. Examples- Watermelon, Muskmelon, Gourd etc.

This indicates that there is a good scope for development of agriculture by increasing irrigation facilities and introduction of improved package of practices. The agro-climatic condition of the district are quite favorable for intensive agriculture except that the area under user will have to be reclaimed gradually (Fig – 2.4)

Table No. 2.4

DISTRIBUTION OF CROPPING INTENSITY IN LUCKNOW DISTRICT :

AREA.	GROSS CROPPED AREA
EASTERN PART	343.0
CENTRAL PART	145.0
WESTERN PART	290.0
TOTAL .	778.0

SOURCE : Govt of Lucknow, agricultural staticstics -2000 -2001

Table no- 2.4 from the table it is clearly seen that in the eastern part of the district cropping intensity and percentage share of the district as will as the district average. Beside from the data available in the Lucknow district it is observed that all the four types of agro –based industries such as

[A) Agro – Produce processing as

[B) Agro – Produce manufacturing unit.

[C) Agro – input manufacturing unit.

[D) Agro – services centre are located in the part of the district.

SOCIO CULTURAL BACKGROUND :

POPULATION

On all the resources provided by the nature the human resource is the most important hence its planning and development are of utmost impotence. Man is at the acme of the entire creation hence he is the supreme power behind every cultural configuration. (Fig – 2.5)

According to the census records of 2001 it revealed. That the total population of the study area was about 2017117. It accounted for 1.82 % of the population of entire Uttar Pradesh. The density of population of the rural area was 405 per km. whereas it was 7229 per km. In the urban areas. In comparison to the density of U.P. It was much higher. In 2001 the density of rural and urban population in U.P was 314 and 4363 respectively.

GROWTH

As per the cencus of 2001 the total population of the district has gone up to 2762801 out of which urban population is 1731224 and rural population is 1031577. The average density of population per sq. km. has gone up to 1093 and the growth rate has been recorded 37.14 % over the population of 2001. 10

The table no- 2.5 shows that during the last seven decades the total population of the district has been increasing very rapidly since 2001.

Maximum concentration is seen on the fertile areas where as the barren land marshy land have low density.

Table no -2.5

DECENNIAL VARIATION OF POPULATION 2000 -2001

CENCUS YEAR	DISTRICT PERSONS	POPULATION VARIATION	RURAL PERSONS	POPULATION VARIATION
1911	793241	--------	497333	---
1921	764411	-363	477221	- 4.4
1931	724344	- 5.24	461195	- 3.6
1941	787472	+ 8.72	487483	+ 5.7
1951	949728	+20.6	533793	+ 9.7
1961	1128101	+18.78	607456	+13.8
1971	1338882	+18.68	675490	+11.2
1981	1617846	+ 20.84	794376	+17.6
1991	2017117	+ 24.68	954835	+20.2
2001	2762801	+ 37.14	1031577	+34.2

SOURCE - DISTRICT CENCUS RECORD - 2001

DISTRIBUTION

The pattern of distribution of population is not even throughout the district. The maximum density of population is seen where the land is fertile. The low lands areas covered with water have got very thin density of population. General habitability has been a very important factor in

attracting the population combined with transport facilities for an easy movement.

DENSITY

The density of population varies from place to place. All the development block do not have the same density. The lowest density of population is in Gosainganj i.e. 326 persons per square km. The highest density is seen in Malihabad i.e. 462 persons per sq. km (Table 2.6).

Table No- 2.6

DENSITY OF POPULATION

BLOCK	AREA (sq. km)	POPULATION	DENSITY PER Sq . Km.
Bakshi ka Talab	378	151528	401
Chinhat	219	95171	434
Gosainganj	326	109550	326
Kakori	237	99583	420
Mal	256	93904	367
Mohanlalganj	359	135837	378
Malihabad	217	100226	462
Sarojininagar	392	169036	431

SOURCE – DISTRICT CENSUS HANDBOOK -2001

The table no-2.6 A indicate that the total population as well as the rural population of the district have been on increase with a very rapid speed. This is an addition of 76742 in rural population and 745684 in the district as a whole between 1981 and 1991 i.e. in the span of ten years. If the same rate of increase continues the population of the district will touch thirty five lakhs and the rural population may go beyond eleven lakhs. Of course this increase is not a healthy sin and the use of some family planning devices will become essential. An intensive publicity is to be made for this purpose.

Table No – 2.6 A

FUTURE TREND OF POPULATION

YEAR	RURAL AREAS	WHOLE DISTRICT
1971	675490	1338882
1981	794376	1617846
1991	954835	2017177
2001	1031577	2762801
2011	1110319	3484320

SOURCE: DISTRICT CENCUS RECORD -2001

LITERACY

In comparison to the literacy of the entire district (40.0%) The literacy of the rural area is much lower (22.6) about 18.32 % people have qualification of high school and above. About 17.4 % people have passed junior high school exam. And roughly about 31.81% of people have passed primary school exams. 33.1 % of people are literate only and they have passed no examination.

SOCIAL STRUCTURE OF THE AREA

It is very correct to say that men are required to man the machines , men are required to manage men and men are required to create demand for manufactured products. The working force play a very important role in the development of the nation. It is very significant that the population well employed and only then it will prove to be an asset. The Guantum and guality of working population are very important indicator of

development. The table 2.6 and 2.6 give a very lucid picture of the social structure of the study area and also of age and sex composition.

Table No – 2.7

SOCIAL STRUCTURE :-

CATEGORY OF WORKERS POPULATION	MALE	FEMALE	TOTAL	% AGE OF Population
Industry and trade	3156	504	3660	.38
Agricultural labours	204644	7694	212337	22.24
Cultivators	31198	5510	36708	3.84
Marginal Workers	1644	11227	12871	1.34
Other	38381	1931	40313	4.23
Total	279023	26865	305888	32.03
Non Workers	233832	415115	648947	67.97
Grand total	512855	441980	954835	100.00

SOURCE – DISTRICT CENSUS HAND BOOK – 2001

The table no- 2.7 shows that 22.24 % of total population of the district is employed in agriculture. Cultivators and agriculture labours combined together account for 26.08 % of the population. I.e. more then one fourth of the population depend upon agriculture less then half percent of population is dependent on industries. It is cleare that there is a bright scope for diverting the people from agriculture to the industrial sector.

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