A GEOGRAPHICAL FRAME OF ALIGARH CITY

A) Evolution of Aligarh City: A Historical Perspective

In earliest times Aligarh was known as Koil, which differently spelt out as Kol, Cole and Koil. Naming of Aligarh is much debatable and there are different views on it.

The inhabitants of Koil were the Koils belonging to certain tribal groups, and professionally known as weavers. It would also have been possible that the people inhabited the area before the Turkish conquest gave Kol as its name, because as per the census of 1872, there were only some 35,000 persons living in this area.

From the medieval period onwards this name stayed for a long time and even today one of the administrative units of Aligarh district the tehsil is known as Koil. During the same period, it was renamed many times as Sabitgarh, Muhammadgarh, Ramgarh, and finally the Aligarh. The present name of Aligarh has been taken from the name of Prophet Mohammad’s (PBUH) cousin and son-in-law “Ali”. Since Afrsyab Khan and his master Mirza Najaf Khan belong to shia sect of muslims, therefore, they named the fort as it still exists at Aligarh. It was generally spelt as Aligarh, but the British authorities sometime spelt it as Alygarh. After British annexation the entire territory was reconstructed, and in 1804 for the first time it was again renamed as Aligarh district. In the defense records of 1857 the name of city has been referred to as the Koil.

Origin of the settlements of Aligarh goes back to the pre-history. This is shown by the legend and folk knowledge of the area. The presence of a large number of mounds and explorations point out, that the district was a part of Pandav kingdom, which moved to Ahar in Bulandshahar district after the destruction of Hastinapur. Nevill (1909) is of the view, that certain areas in the region were inhabited during the Buddhist time, and he mentions that the Buddhists remains were found in a locality known as Balai Qila of the city.

Explorations undertaken so far suggest, that the settlement in this region began around 1500 B.C, painted grey wares associated with Mahabharat were found at many sites, that makes one to believe that culture was established in the area around 1000
B.C and by 600 B.C. later in the 2nd century the area was under the rule of Mauryans, Sakas, Kushans and Nagas.

Archeological remains of Gupta period from 5th to 9th century A.D suggest that Koil was under the Gupta reign and later marked with the Harsha empire. From 9th century A.D onwards the area was under the domain of Gujars and Pratihars.

There has been a gap and unconformity between the ancient and medieval periods for which nothing is definitely known about the Koil till the 12th century.

The end of the 12th century marks the beginning of muslim invasions. The fortress of Koil was captured by Qutubudin Aibak in 1194. He established slave dynasty of Delhi which had Koil on its fold. Balban, one of the king of this dynasty constructed a minar (tower) on the high ground of Balai Qila in 1253 at Koil to commemorate the victory of Sultan Nasiruddin Shah.

Aligarh emerged as an important center of muslim education and scholars were picked up by Alluddin Khilji for imparting education to students at Delhi. A mosque as it exists today at Balai Qila was built during this period.

Ibne Batuta a traveller stayed at Koil in 1343, and he describes about Aligarh in his travel records Rahila as a fine town surrounded by mangroves and mentioned cotton cultivation, green plantations and castor plant cultivation in its hinterland.

During the Lodhi period (middle 15th to early 16th century) fortification was built around the fortress, the Balai Qila, and was erected having four gates, the name of gates still survive even today as Delhi gate, Turkman gate, Sasni gate and Madar gate. A moat circumscribed the rampart and the name of a locality Khai Dora remains in existence till date.

Throughout the early medieval period, Koil appeared as an important city, the term khitta was used for Koil which was commonly used for designating large cities. The size architecture and of Jama Masjid also reflects the metropolitan dimension that the city might has attained.

The second quarter of the 16th century follows the establishment of Mughal empire, which continued till the middle of 19th century. During Babar’s period many buildings were built by using the stones. Babri Mandi locality is the only reminder of this period. During Akbar’s time Koil was the capital of an administrative sarkar,
which was divided into four *dasturs* and twenty one *mahals*. Indigo cultivation reached at the highest level of production, which signified Koil as an important commercial unit.

Puter Mundy, who visited Koil in 1631 has described it as a medium town with a castle and an important centre of saltpetre industry.

With the beginning of the 18th century after the death of Aurag Zeb, *jats* started emerging as the powerful *zamindars*, records put their arrival to this area by 1646.

In early 18th century Sabit Khan was appointed as Governor of Koil by Mohammad Shah. He took great interest in the construction, and build a fort at Sabitgarh in 1717, which is now known as Aligarh Fort, and reconstructed the Jama Masjid at the fort in 1724.

During the 17th and 18th centuries Koil emerged as an important centre of learning and education. In 1760 Ahmad Shah Abdali captured Ramgarh Fort during his rule when Koil was ruined.

In 1775 Najaf Khan, a Mughal commander established his rule and sent his lieutenant Afrasyab who got vacated Ramgarh Fort, and renamed it as Aligarh.

Marathas took over the Aligarh Fort in 1785 and appointed Count De Biogne as the commander of this region. The French commander made Aligarh as the headquarters in 1791. After De Biogne, Marathas deputed General Cullier Perron to take the charge from De Biogne. He improved the bastion of the fort and established a cantonment outside the present Sulaiman Hall. In 1802, Perron built a garden which is located in the university and still known as Saheb Bagh. In 1803 General Lake conquered the town of Koil. At the commencement of British rule, the district was formally named as Aligarh in 1804. In 1842 a post office workshop was established by Dr Patan, the Post Master General. The first railway line in the district was opened up in 1863 from Tundla to Aligarh. The victory of Aligarh mutiny (during 1857) was celebrated for many days. By 30th June 1857, a new government was established by Subedar Mohammad Ghous Khan with Nasimullah Khan as the in-charge of the city.

Chronologically, in the ancient period, it was dominated by hindu population, then by muslims, and in the British period there was a mixed hindu and muslim population.
B) Physical Setting of Aligarh City

a) Relief and structure

Aligarh city lies in a low lying tract between the Jafri drain in the west and the Sirsa stream in the east. This tract forms a part of the upper Ganga-Yamuna Doab which is a plain of extremely good fertility with agricultural point of view. The plain slopes down gently from north to south and then swings southeast. The surface of the plain is spotted with several depressions formed by the river valleys, while its elevation consists of simply slender ridges of sand. The most prominent of them are three regular lines running from north to south. The first follows the boundary between the Praganas\(^1\) of Tappal and Chandaus. The second may be seen along the right bank of a stream Karwan, and the third which is more uninterrupted and less defined lies a few kilometers in the east. These ridges continue through the upper portion of Tehsil\(^2\) of Iglas and two of them enter Mursan paragana of Hathras tehsil. In some places transverse spurs are seen which reduce gradually into the level surface of the plain. To the west of Aligarh there are two parallel lines of high sandy ground running from north to south. The configuration of the ground is very similar to doab, from the Ganga khadar level rises sharply to the high sandy upland which is flanked by the old high bank of the Ganga. From this point the level descends inland gradually to a depression drained by the streams named Nim Nadi and Chooiya, beyond which it again rises to the bank of the river Kali Nadi. There is a sandy belt which rises from the low and the narrow khadar of that stream and is followed by the fertile belt of loam soil which gradually sinks into the broad central depression. The later traverses the entire district in a southeasterly direction roughly parallel to the course of the river Ganga. Entering from the north of the tehsil, it passes through the tehsil of Sikandra Rao. This tract is characterised by clayey soil, imperfect natural drainage and numerous lakes in which the surface water collects, without finding an easy outlet. In consequence of the resultant saturation the tract is marked by the frequent stretches of barren usar of salt in the form reh. Beyond this depression, the surface rises again into a level plain of rich soil, which assumes a sandy character in the western part of the district. In the northwest, the general characteristics of the doab are same having loam alternating

---

\(^1\) *Pargana* is a sub-division of a *tehsil* in the district. Creation of *pargana* from the *tehsil* is meant for the collection of revenue on agricultural lands from villages which form the part of *pargana*.

\(^2\) *Tehsil* is the sub-division of the administrative district.
with clay in the depression with a shallow ground on the banks of few rivers till finally forms a high cliff of the river Yamuna from where the level drops to the khadar area of that river. The southwestern part of the district contains a sandy tract of a very homogenous type forming parts of the tehsils of Iglas and Hathras.

In general, the level of land at Aligarh is extremely regular. Elevation of the ground surface is 195m above sea level at the Chandaus and Tappal praganas lying in the northwest, dropping to 189.58 m at Soma in the center. The elevation of the land where the Ganga canal enters the district is 193.24m above sea level and from here, there is a gradual slope eastward to follow the direction of the course of the Ganga.

The elevations measured at Atrauli and Dadon tehsils having the calcereous soils are 186.84m and 180.74 m above sea level, whereas in the khadar area they at the points of entry and exit of the lower Ganga canal are 178.00 m and 176.78 m respectively. Further south the slope of the land drops (on the bank of the river Karwan near Khair block) varies from 189m to 185.32m at Aligarh and 183.49m at Jalali. All these places lying on the same latitudes south of this, record elevations as 180.14m at Gorai, 177.90m Iglas, 180.14m Sasni, and 176.78m Sikandra Rao. On the southern border elevations are 176.78m Hathras, 175.56m Hasyan and 176.96m, where the Ganga canal leaves the district. The Grand Trunk Road follows the general line of slope and it runs up to roughly 80km. The level further in order of drops from 190.50m to 173.76m, giving an average slope of the length about one-fifth of a meter per km.

b) Drainage

Aligarh is well served by a number of streams. There are two main rivers, which have their sources in snow covered mountain ranges of the Himalayas namely, the Ganga and the Yamuna, and they are perennial. Some of the streams are seasonal namely, the Karon, the Sengar and the Rind (Fig.1.1) which are generally reduced to an insignificant water course during the dry season.

i. The Ganga River

The river Ganga having its source in the Himalayas enters the north Indian plain at Haridwar with the same name of the district. From there it flows southwards reaching up to the district of Bulandshahar, then it enters the Aligarh district and takes a southeasterly direction forming the northern boundary of the district, and separates the
ALIGARH DISTRICT
Drainage

INDEX

Source: Survey of India Toposheet No 63H, 63L, 64L

Fig. 1.1
Aligarh from the district of Budaun. This river brings enormous new alluvium which spreads on either sides of the banks during the rainy season. The volume as well as the velocity of river is considerably increased and the low-lying areas are very oftenly inundated during the rainy season.

**ii. The Yamuna River**

The river Yamuna has its source in the snowy peaks of the Himalayas, coming from the north, it then flows along the northwestern border of the Aligarh district, and then moves towards south into the districts of Mathura and Agra. The river banks rise gradually with a gentle slope giving a room to fertile expanse of alluvial land, which is locally known as *khadar* tract. Water carrying capacity of this river is much less than that of the Ganga, because of this river has well defined banks, which sometimes overflow in years of heavy floods.

**iii. The Kali Nadi**

The Kali Nadi is the only tributary of the Ganga, which traverses the district. It rises in the district of Muzaffarnagar and passing through the districts of Meerut, Ghaziabad, and Bulandshahr enters in this district from the north side. It then flows southeast, and form the western and southern boundary of the *tehsil* of Atruali, which is a separate tehsil of Aligarh. It passes through the district of Etah, near the village of Barhari. It is a perennial stream and causes a serious damage to the crops grown on lands along its course when it is inundated during the rainy season. The Nim Nadi is a small stream coming from the north and joins the Kali Nadi on its left bank. The Nim and Chhoiya Nadis join together and flow southward as Nim Nadi joins the Kali Nadi on the left bank. The Nim Nadi is mainly a seasonal river. It is seldom dry in hot season, and inundates during the rainy season.

**iv. The Isan Nadi**

The Isan is a tributary of the Ganga, and takes water from several shallow depressions lying in the villages of Iklalpur, Kheria and Bargawan, to the east of the *tehsil* Sikandra Rao. It then flows in a southeasterly direction through the district of Etah, between the Grand Trank Road and the Kanpur Branch Canal.
v. The Rind Nadi

The Rind is another drainage channel which assumes large volume of water before joining the Yamuna at the Fatepur district. The Rind flows through a shallow alluvial bed. In years of unusual heavy rainfall the low lands lying along its course are inundated, and when the river recedes, it leaves a rich layer of alluvial soil.

vi. The Karwan River

The Karwan river is also known as Karon is a natural water course. It flows in northsouth direction and passes through the Khair and Iglas tehsils of Aligarh district, and further southwards passing through the district of Mathura, and finally joins with the Yamuna river near the city of Agra.

c) Climate

Climate forms an important part of the physical environment and influences human life and its culture. Climate determines the life style and its culture, and food habits of the people. Seasonal rhythm and climate assumes a greater significance in understanding the life style and social status of the people. Aligarh city has a tropical monsoon climate, which is characterised with the seasonal rhythm of southwest and northeast monsoons. In summer it is warm and hot, during winter a general dryness is experienced. The cold weather season starts from the middle of the month of November, ends by the early March and it is followed, by hot weather season which lasts until the middle of the month of June. The southwest monsoon season takes its start from middle of the month of June and seizes by the third week of the month of September. The period extending from the third week of September to the middle of November is described as the post-monsoon season. (Fig 1.2, Fig.1.3)

The climate of Aligarh is similar to that of the entire Ganga-Yamuna doab. In general, the climatic pattern of Aligarh may be divided into four distinct seasons:

i. Cold weather season (December to February)

ii. Hot weather season (March to mid-June)

iii. Season of general rains (Mid-June to mid-September)

iv. Season of retreating monsoon (mid-September to November)
Aligarh City
Average Monthly Temperature

Source: India Meteorological Department

Fig. 1.2

Aligarh City
Average Monthly Rainfall

Source: India Meteorological Department

Fig. 1.3
i) **The cold weather season** (December to February)

This season is characterized with low temperature and high pressure conditions. Cold and dry air which oftenly blow during the months of December to February. Sky remains clear, and very rarely clouds are seen in the sky.

As a result this area comes under the influence of the high pressure belt. Frost may occur, but it is of moderate intensity. The maximum temperature is recorded as 23°C and minimum from 10°C to 12°C during the month of January at Aligarh. Temperatures further fall due to the blowing of cold winds coming from the north. During this season the winds blow from west and northwest to southeast direction. These winds are generally light and dry due to their continental origin. Sometimes in the last week of December a little amount of rain occurs with heavy showers brought by western disturbances originating in Mediterranean sea. The temperature begins to rise by the end of the month of February.

ii) **The hot weather season** (March to mid-June)

Hot weather season begins from the month of March and lasts till mid –June. This season is characterised by an increase in temperature and a decrease in pressure. The maximum and minimum temperatures are recorded as 38°C and 21°C respectively. Maximum temperatures in the months of May and June remain 43.5°C, and sometimes reach up to 46°C for a few days. The days are characterised with intense heat and prevalence of dry air marked with very low relative humidity to the tune of 24 per cent. During the summer months a hot dry wind locally called as loo blows with great velocity during the day hours. The relative humidity is reduced to the lowest 2 to 3 per cent in the afternoon. The most peculiar phenomenon is the occurrence of dust storms during the hot weather season. These storms usually occur in afternoon with strong air movement. A little rain sometimes may occur during the evening hours in association with the thunderstorms.

iii) **The season of general rains** (Mid-June to mid-September)

The season of general rain coincides with the humid oceanic currents originating in Indian ocean and reaching northern parts of India during the months of July and August, because of excessive heat which creates a low pressure over the land. As a result, moisture laden winds coming from the Indian ocean moving towards the
land in northern part cause rainfall by the month of June. This season is characterised with cool air and frequent occurrence of rainfall. The temperature comes down from 40°C to 27°C in the month of June and 34°C to 25°C in July. The relative humidity increases from 30 per cent in the month of May to 74 per cent by the end of June, and 84 per cent by the months of July and August. The sky remains overcast. Actually in Aligarh the rain occurs with the onset of monsoon in the last week of June or the first week of July and continues till the end of the months of September or by early October. About 90 per cent of rain at Aligarh is received in this season. A peculiar characteristic of rain is that it does not occur continuously; after two or three days of continues duration. There may be a break or a period of dry spell, which may last for a week or ten days. The rainfall received at Aligarh may range from 65 to 75 cm annually.

iv) The season of retreating monsoon (mid-September to November)

During this season weather is associated with dry winds and sometimes temperatures may increase, but a fall in temperature is experienced by the month of October. The maximum and minimum temperatures recorded during the month of September are 33°C and 24°C respectively. This season is marked by clean sky, low relative humidity (47 per cent), and a little rainfall. The temperatures remain moderately high during the day and low during the night hours.

d) Soils

The soils of the district are similar in composition and appearance as those of the doab region. Due to the sauce pan shape of district with the rivers of Ganga and Yamuna flowing on the relatively high land peripheries and a central low lying tracts, the alluvium brought by the rivers spreads over three-fourth area, whereas the alluvium brought by the river Yamuna spreads over only one-fourth of the total area of the district. Thus, soils of Aligarh are mainly made up of alluvium brought by the rivers of Ganga and Yamuna.

The alluvial soils of Aligarh district have been divided into two divisions:

i) The old alluvium (bhangar)

ii) The new alluvium (khadar).

The old alluvium occupies the level plains above the general flood limits of the main rivers and their tributaries, whereas the new alluvium occupies the flood plain
of the rivers and their tributaries as a result of which the constituents of such lands are renewed every year. This alluvium chiefly consists of various grades of sand, silt and clay. Beds of very coarse sand and gravel are commonly found over the surface. The soils differ very much in texture and consistency ranging from sand through the loam and silts to heavy clays, that are ill drained and are sometimes charged with injurious accumulation of sodium salts producing a sterile deflocculated land called *usar*.

*The Atlas of Agricultural Resources of India* (1980), categorises the soils of Aligarh district into four major types:

i. Old alluvial soils

ii. Young alluvial soils.

iii. Calcareous alluvial soils.

iv. Saline and alkaline soils.

**i) Older alluvium (Bhangar)**

This soil covers an extensive area in Aligarh city and its vicinity. The texture of soil varies from good quality loam to sandy loam. Its colour ranges from light to deep brown. This soil is very fertile, some of the highest yields of crops in the district come from the areas formed by these soils.

**ii) Newer alluvium (Khadar)**

These soils occupy a narrow belt in the eastern corner of the district along the course of the Ganga, and in the western corner along the Yamuna river. These tracts receive each year new deposits of silt and sands which are brought during the flood periods by the rivers Ganga and Yamuna. The colour of the soils vary from light grey to dark grey. The texture of the soil is from sandy to silt loam. Water table remains usually high near the surface. The drainage is imperfect, restricted and poor.

**iii) Calcareous alluvium**

These soils occur in Iglas and Atrauli tehsils, and Gangiri block of Aligarh. Their occurrence is also seen in the Gonda block of the district. Colour of these soils vary from brown to reddish brown, and texture from sandy to sandy loam. Due to presence of inorganic matter and sandy nature, as well as substantial presence of soluble salts, they are not suited for farming.
iv) Saline and alkaline soils

Due to imperfect drainage, the district contains a vast area under such soils, which are either saline or alkaline. Unfortunately due to arid climate, poor drainage and high ground water table these soils are confronted with the problems of salinization and alkalinization. These soils mainly occur in the tehsils of Koil, and in some parts belonging to Khair, and Iglas tehsils of Aligarh district. The texture of these soils vary from loam to clay loam, and colour from grey to dark grey.

C) Socio- Economic Setting of Aligarh City

Aligarh city covers an area of 34.98 sq km, of which only 61 per cent is built up. Out of the total built up area, 49.1 per cent is in use of residential purposes, 28.1 per cent under roads, 9.4 per cent for industrial and commercial purposes, 7 per cent for public utility, 2.1 per cent under parks and open spaces and only 0.4 per cent is for recreational purposes. For administrative purposes the Municipal Corporation of Aligarh has divided the city into 70 municipal wards (name and number of wards are given in Table 1.1 and Fig. 1.4), which comprise more than 160 residential colonies (mohallas).

Like other cities of the state, Aligarh too has a distinct demarcation between the old and the new parts. Delhi-Kolkata railway line separates the old and new parts of the city. The old part of the city comprises 48 wards and the new 22 wards. The old city presents the picture of decadence having narrow roads, old and congested houses with improper drains, sanitation and health facilities, and no open spaces. The new area is much clean than the old part, which comprises the area of the Aligarh Muslim University, which spreads over 4.8 sq.km. But new residential colonies and innumerable shopping centers have sprung up making this part as congested. Gradually, the outskirts of the city are expanding and encroaching upon rural areas, therefore, slums have emerged at a rapid rate.
Table 1.1. List of Old and New Wards of Aligarh City, 2001

<table>
<thead>
<tr>
<th>Name of wards (Old City)</th>
<th>Ward No.</th>
<th>Name of wards (New City)</th>
<th>Ward No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indra Gandhi Khair Rd.</td>
<td>1</td>
<td>Pala Sahibabad</td>
<td>6</td>
</tr>
<tr>
<td>Sarai Garhi</td>
<td>2</td>
<td>Dori Nagar</td>
<td>7</td>
</tr>
<tr>
<td>Nagla Kalar</td>
<td>3</td>
<td>Naurangabad</td>
<td>9</td>
</tr>
<tr>
<td>Sarai Lavaria</td>
<td>4</td>
<td>Krishnapur</td>
<td>24</td>
</tr>
<tr>
<td>Sarai Kaba</td>
<td>5</td>
<td>Bhamola</td>
<td>28</td>
</tr>
<tr>
<td>Nauner Gate</td>
<td>8</td>
<td>Sudamapuri</td>
<td>29</td>
</tr>
<tr>
<td>Delhi Gate</td>
<td>10</td>
<td>Begpur</td>
<td>31</td>
</tr>
<tr>
<td>Beema Nagar</td>
<td>11</td>
<td>Dodhpur</td>
<td>35</td>
</tr>
<tr>
<td>Sarai Deen Dayal</td>
<td>12</td>
<td>Jamalpur</td>
<td>37</td>
</tr>
<tr>
<td>Nagal Masani</td>
<td>13</td>
<td>Jiwangarh</td>
<td>39</td>
</tr>
<tr>
<td>Sarai Bala</td>
<td>14</td>
<td>Badar Bagh</td>
<td>40</td>
</tr>
<tr>
<td>Durga Puri</td>
<td>16</td>
<td>Rawan Tila</td>
<td>43</td>
</tr>
<tr>
<td>Gambhirpura</td>
<td>18</td>
<td>Begum Bagh</td>
<td>44</td>
</tr>
<tr>
<td>Nai Basti</td>
<td>19</td>
<td>Zohra Bagh</td>
<td>45</td>
</tr>
<tr>
<td>Exhibition Ground</td>
<td>20</td>
<td>Janakpuri</td>
<td>46</td>
</tr>
<tr>
<td>Slaughter House</td>
<td>21</td>
<td>Nagla Tikona</td>
<td>48</td>
</tr>
<tr>
<td>Sanichari Penth</td>
<td>22</td>
<td>Lekh Raj Nagar</td>
<td>49</td>
</tr>
<tr>
<td>Kalideh</td>
<td>23</td>
<td>Ghanshyampuri</td>
<td>51</td>
</tr>
<tr>
<td>Sarai Hakim</td>
<td>25</td>
<td>Firduas Nagar</td>
<td>52</td>
</tr>
<tr>
<td>Sarai Nabab</td>
<td>26</td>
<td>Maulana Azad Nagar</td>
<td>53</td>
</tr>
<tr>
<td>Kanwari Ganj</td>
<td>27</td>
<td>Medical College</td>
<td>58</td>
</tr>
<tr>
<td>Fire Brigade</td>
<td>30</td>
<td>Nagla Jamalpur</td>
<td>59</td>
</tr>
<tr>
<td>Gandhi Nagar</td>
<td>32</td>
<td>University Area</td>
<td>60</td>
</tr>
<tr>
<td>Kishor Nagar</td>
<td>33</td>
<td>Kela Nagar</td>
<td>61</td>
</tr>
<tr>
<td>Sarai Pakki</td>
<td>24</td>
<td>Sir Syed Nagar</td>
<td>66</td>
</tr>
<tr>
<td>Avas Vikas Colony</td>
<td>36</td>
<td>Hamdard Nagar</td>
<td>68</td>
</tr>
<tr>
<td>Kala Mahal</td>
<td>38</td>
<td>Badam Nagar</td>
<td>69</td>
</tr>
<tr>
<td>Shivpuri</td>
<td>41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) Growth of urban population in Aligarh city

Total population of the city was estimated at 669 thousand persons in 2001. There is an increase in population to the tune of 6 per cent per annum, which doubles itself in every twelve years. Of this 2 per cent is due to natural growth and 4 per cent due to immigration from rural to urban areas. Consequently, the population of the city is increasing to the tune of 36 thousand persons annually.

Table 1.2 Population of Aligarh City- A Trend of Growth 1971-2001

<table>
<thead>
<tr>
<th>Year</th>
<th>Total population</th>
<th>No. of males</th>
<th>No. of females</th>
<th>Decennial growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>252314</td>
<td>126650</td>
<td>125664</td>
<td>27.16</td>
</tr>
<tr>
<td>1981</td>
<td>320861</td>
<td>161475</td>
<td>159386</td>
<td>49.75</td>
</tr>
<tr>
<td>1991</td>
<td>480520</td>
<td>257391</td>
<td>231300</td>
<td>38.96</td>
</tr>
<tr>
<td>2001</td>
<td>669067</td>
<td>356725</td>
<td>312362</td>
<td>164.96</td>
</tr>
</tbody>
</table>


Table 1.2 shows that, total population of the city was 252 thousand persons in 1971, which increased to 49.75 per cent in 1981. In 1991, the growth of population was 38.96 per cent, but in 2001 it has shown a substantial increase to the extent of 164.96 per cent (Fig.1.5, Fig.1.6)

It can also be seen from the figures given in Table 1.1, that during the last decades the growth rate has been within the range of 35 to 40 per cent. In between 1991 and 2001 decades, there has been a highest growth rate to the tune of 50 per cent. The socio-economic compulsions have led the rural landless labourers to migrate to Aligarh city. The migration of the labourers also reflects an impact on sex-ratio being 868 females per thousand of males in 2001.

b) Urban growth of Aligarh city

The urban growth of Aligarh city has been slow during the past, but due to industrialization and urbanization processes have accelerated Industrial, emergence of educational institutions, establishment of state and central government offices, commercial markets and apartments. All of these have come up during the last four
Source: Census of India (1971, 81, 91 and 2001)

Fig. 1.5

Source: Census of India (1971, 81, 91 and 2001)

Fig. 1.6
decades. They have led a continuous physical growth of the city. The city is criss crossed by 9 metalled roads. Initially, the development started on the sides of the roads, and it spreaded to a sufficient extent on either side of the roads from the center of the city. The houses were built along the arcs of the roads, connecting two adjacent roads. The urban growth since 1951 shows that, the city development was mostly confined within 2 km radius in the east, west and in the southern parts. While in the north, city area formed a bulge extending up to a distance of 5 km. This bulge is clearly visible along Anupshahar and Ramghat roads. In 1971 the city expanded in all directions to the extent of 4 km in radius. By 1991 urban growth was roughly equal in all directions, except the north, where the urban sprawl is seen with a radius of 7 km along the Anupshahr road, and 6 km radius along Ramghat and G.T roads. Within last 5 years there has been a rapid growth, but a little development is seen along the Gonda and Khair roads. The city has followed a dispersed pattern in expansion, leaving some pockets of vacant lands inside. It is observed that, the urban growth has been intensive along the main transportation lines. But a rapid growth is seen along the Anupshahar and Ramghat roads in the north. Lowest urban growth is seen in areas southeast of the city along the Maha Maya Nagar road.

Since 10th century, cotton textile manufacturing was started in the city. Pottery making was introduced by Hendreson in 1823, and he also incorporated improvements in cotton textile manufacturing, preparation of indigo and fine gun powder. With the beginning of 20th century industrial activity flourished and diversified. By the year 1907 brass and iron lock industries were established, and there were 27 lock factories in Aligarh at that time. High quality locks were traded throughout India and abroad.

Economic well-being is reflected in Koil tehsil. The old part of the city is dominated by high site known as Balai Qila, now known as Upper Kot. It is the place from where the inhabitation started initially. British developed the city in the north between the old town and Aligarh Fort, and designated it to be known as Civil Lines Area. It was here that railway station, civil court, Clock Tower, Collectorate, Post Office, Government Press and Church were built along with the building in which the office of the of Scientific Society founded by Sir Syed Ahmad Khan was housed.
c) Urban morphology of Aligarh city

On the basis of urban morphology, Aligarh city has been divided into following four parts:

i. The Upper Kot Area

ii. Achal Tal Area

iii. Civil Lines Area

iv. Peripheral Ring Area

i) The Upper Kot Area

Historically, this area of is the oldest part of the city. This is mainly inhabited by Muslim population. Their families belong mostly to the middle and working class people. Some descendents of the families living here belong to the medieval period, and belong to the social elites of the area. This area is mostly dominated by business class people, who own household industries like lock, biscuit, building fitting material and other hardware manufacturing industries are very common.

ii) Achal Tal Area

This area is dominated mostly by hindu population, where the settlement dates back since 10th century. In the later period, the development of this area took place between Manik Chowk and Madar Gate localities.

iii) Civil Lines Area

This area was developed by the Britishers in early 19th century. It has a complete segregation from the first two. The principle lines of development were along the Marris road, University road, Aunpshahr road and Ram Ghat road. These roads have a north-south orientation with reference to the railway station. This area has large spacious houses with lawns in front, kitchen and gardens in the backyards. It represents a refreshing contrast to the congested area of the old city. But now it has also become very congested.

iv) Peripheral Ring Area

This area shows a recent development. Many localities now form parts of old villages and more occasionally retain the same name. These are the areas in the city
marked with the dominance of one or the other functions. Some of the new colonies developed are known by the names of Hamdard Nagar, Bhamola, Firduas Nagar and Maulana Azad Nagar.

**d) Urban land use**

Urban use of land Aligarh city shows an area of 68.97 sq km, of which only 67.48 per cent is fully developed, and rest lies little developed to the extent of 35.52 per cent (Table 1.3). This pattern of urban land use shows that, there is no clear-cut demarcation in built up area and the urban functions are intermingled.

It is also seen from the above table, that out of the total developed area, 77.89 per cent is used for residential purposes, 0.55 per cent for recreation, and 0.06 per cent is undeveloped. In most parts industrial and business activities are mixed and residential and business activities are seen in various proportions. Some household industries are located in old parts of the city and a piecemeal production is carried out there. There are some residential areas, which have exclusively developed in the peripheral zones.

**Table 1.3: Urban Land Use in Aligarh City-2000-01**

<table>
<thead>
<tr>
<th>Urban land use</th>
<th>Area (in ha.)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Developed area</td>
<td>4654</td>
<td>67.48</td>
</tr>
<tr>
<td>Residential</td>
<td>3625</td>
<td>77.87</td>
</tr>
<tr>
<td>Educational institutions</td>
<td>398</td>
<td>8.55</td>
</tr>
<tr>
<td>Commercial</td>
<td>186</td>
<td>4.00</td>
</tr>
<tr>
<td>Transport</td>
<td>169</td>
<td>3.60</td>
</tr>
<tr>
<td>Industrial areas</td>
<td>148</td>
<td>3.18</td>
</tr>
<tr>
<td>Recreational areas</td>
<td>86</td>
<td>1.42</td>
</tr>
<tr>
<td>Play grounds</td>
<td>27</td>
<td>0.08</td>
</tr>
<tr>
<td>b) Undeveloped</td>
<td>2743</td>
<td>32.52</td>
</tr>
</tbody>
</table>

Source: Office of the Aligarh Development Authority, Aligarh, 2004

**e) Residential structure**

Aligarh city is expanding very fast, and it has sprawled a lot during the last three decades, resulting in that many villages have merged with the city expansion.
Large number of residential plots purchased by the holders and as a result beautiful residential colonies have emerged. Nearly 77.89 per cent of the total land of Aligarh city is in use for residential purposes. Residential structure of the city can broadly be separated as: eastern and western parts, with a railway line makes a division between the two. The eastern area consists of parts of the old city, which is characterised by old styled residential houses, lined with small shops. East of the railway line lies the new part of the city known as the Civil Lines area and the campus of the Aligarh Muslim University. Civil Lines area has emerged as the residential area for urban elites. Elegant compact colonies with qualitatively spacious houses have come up, creating congestion.

f) Occupational structure

Aligarh city is multi-occupational in nature as most persons are employed in different jobs. A majority of people are engaged in business, which is carried out on small and big establishments. Most people in old walled city are engaged in small scale industries like the manufacture of locks, and parts of locks. Melting and molding of iron and silver is confined in different localities of old city, namely, Atish Bazan, Usman Para, Turkman Gate and Kala Mahal. Some acid preparation processing is also done in a locality with the name of Kanwari Ganj. In other muslim dominated mohallas people are engaged in the sale of cloth on small stores and as mechanical workers in factories.

People living in Civil Lines and in some other mohallas are in class one jobs like doctors, engineers, lawyers and teachers. Ladies belonging to these families also hold important posts in government services. Their children in good numbers are studying in different professional courses.

g) Industries and commercial activities

Aligarh is famous as medium class industrial city. It is also known as Taala Nagari (Lock City of India). The second largest manufacturer of locks in the country ‘Link Locks’ is located in the City. An approximation puts the total number at 25,000, which constitute both small and large scale industrial units. Aligarh has a boom in construction industry. Many new multi–storied buildings, shopping complexes and apartments have come up. Many malls are under construction by a number of developers. Some of the malls in the city include Great Shopping Mall at Ramghat.
Road, Landmark Mall at Marris Road, Sharda Mall at Center Point, Ozone Mall at Ring Road and Great Value Mall at Ramghat Road.

There are many popular showrooms of sport and textile items in Aligarh. On the incentives of Uttar Pradesh State Industrial Development Corporation (UPSIDC), the Taala Nagri Industrial Area has been developed along the Ramghat Road.

Three industrial areas of Industrial Estate, Pala Road and Taala Nagari. Ahlampur Industrial Area have been proposed by UPSIDC along the Delhi G.T Road. Dakshinanchal Vidyut Vitran Nigam Ltd. has entrested to provide unrestricted power supply to Taala Nagari, outside the city area.

Aligarh is among the largest manufacturers and suppliers of locks and hardware goods in India, and also known as one of the largest manufacturer of brass fitting items. Aligarh is also known for the manufacture of plastic and iron- toy pistols, handcuffs, belts, badges for schools and government supplies. It also has an art ware and sculpture products industry. It supplies products to other countries of the world. Brass market of Aligarh is one of the largest in India, which employs thousands of skilled labourers. About 100 tonnes of brass and 50 tonnes of zinc is consumed daily. Iron, aluminum, bronze, and zinc products are also manufactured in the city.

Aligarh is also a bulk producer of zinc die cast parts with the help of hot chamber die-casting process. These products are consumed in low end domestic markets. Consumption of zinc alloy in Aligarh is more than the consumption of zinc alloy in rest parts of the country. Made in Aligarh the zinc- die cast parts can get broken after 2 to 4 years as Aligarh uses recycled zinc alloy, which contains a lot of impurities, especially the lead. Aligarh also has automobile parts manufacturing industry which supply products within the country and abroad. It has four fruit preservation plants, which have the scientific devices for ripening and preservation of fruits and vegetables.

**h) Manufacturing industries**

Aligarh city is also known as agricultural trade centre. Processing of agricultural products and manufacturing are important activities. Aligarh has always been known as an important business centre of for lock industry. A well known business firm named as Johnson & Co. was the first lock factory established in 1870 at Aligarh during the
British period. The same company in 1890 initiated manual work for making locks on a small scale.

Being a railway junction, Aligarh has developed commercial centres for the processing of wheat, barley, millet, corn, sugarcane, potato and cotton. In addition to the lock industry, other industries of Aligarh include flour mills, processing of raw cotton and manufacture of butter, thermometers, glass manufacturing etc.

Aligarh is also famous for the manufacture of brass hardwares and sculptures of different designs. To date, the city holds thousands of manufacturers, exporters and suppliers who are involved in the production of brass, bronze, iron and aluminum items.
References

Nevill, H.R. (1909)


Siddiqi, J.M. (1975)

*Snippets from the Past*, Aligarh, p.9
