

People and Settlement

What is a settlement?

Look around the city or town or village in which you live. You will find that the buildings, roads, drains, etc. are organised in some way. This arrangement varies widely across the world, as we shall see a little later.

The way we organise ourselves and our living spaces in a place is called a settlement – that is, the geographic space where we live and work. In a settlement, we have different kinds of activities – educational, religious, commercial, etc.

In this chapter we will take a brief look at some aspects of human settlement and the geography related to it.

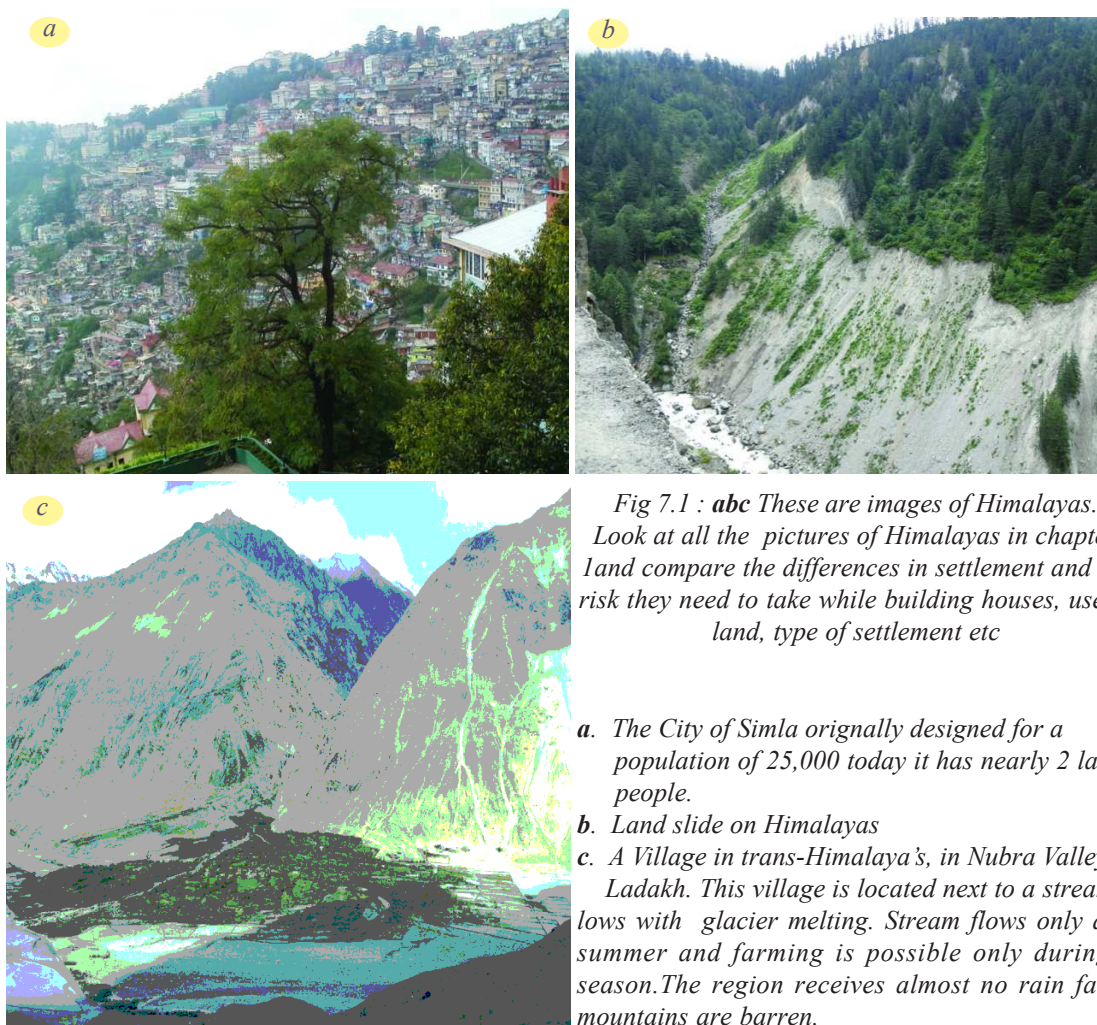


Fig 7.1 : abc These are images of Himalayas. Look at all the pictures of Himalayas in chapter-land compare the differences in settlement and the risk they need to take while building houses, use of land, type of settlement etc

- a. The City of Simla originally designed for a population of 25,000 today it has nearly 2 lakh people.*
- b. Land slide on Himalayas*
- c. A Village in trans-Himalaya's, in Nubra Valley of Ladakh. This village is located next to a stream that lows with glacier melting. Stream flows only during summer and farming is possible only during this season. The region receives almost no rain fall, the mountains are barren.*

Field work

Look at your own city, town, or village. Draw a sketch map of a selected area using the methods you had learnt earlier. Your map should show the following:

Roads; Houses; Shops and markets; Streams and drains; some Public places - hospitals, schools, bus stand, railway station etc;

- Are the public places at points that would be convenient to most people?
- Do you find any pattern in the location of markets?
- Are the houses in clusters? Are they linked to the main road?

Talk to people in the selected area and find out the changes in the settlement during the past twenty years and the reasons for this.

What amenities should have been provided for, but has not been done?

How did settlements begin?

Early humans hunted and gathered their food. That is why they were called hunter-gatherers. They were nomadic i.e., they kept moving from place to place. This was in search of food – gathering food from plants and trees, and hunting animals for meat, hide (animal skin), and other uses. They started making and using tools – initially made of stone. With these tools, they were able to hunt more effectively and efficiently.

For about 1.8 lakh years humans lived in bands as hunter-gatherers. They did not practice agriculture. However owing to changes in the obtaining of food, some bands took to the deliberate production of food - agriculture. This was only 10,000 years ago. It brought about many changes in human lifestyles. People did not have to travel over large areas to obtain food. They could now increasingly stay in one place. As hunter-gatherers, they were nomadic. But as agriculturalists, they were increasingly sedentary (staying in one place).

Fig 7. 2 : A rockshelter used by early humans at Bhimbedka, Madhya Pradesh. Read class VI Chapter on hunter gatherers for details.



- Compare and contrast : Using the information given above, compare and contrast nomadic and sedentary life styles. See how many points you can identify. (Make another table if the space is not enough here.)

Nomadic life style	Sedentary life style

Expansion of agriculture and emergence of towns

As agriculture progressed, people organised their life around patterns observed in nature. For example, the seasonal cycles, how to predict climatic conditions, how to plan the timing of cropping practices (sowing, harvesting, etc.), and so on. They also had time to speculate on other things – the movements of heavenly bodies, for example. Population sizes also increased.

As populations increased, there was more specialisation - weavers, potters, metal workers and other professions emerged. The number and variety of goods produced increased and so did the trade in them. Rulers began to encourage craft persons to settle in urban areas. Urban settlements i.e. towns where people did not work in agriculture expanded.

As settlements became larger, they also became more complex because there were more functions to be performed – food production was not the only concern. Within each settlement, people specialised in certain skills. Many goods were produced for the market and sold to traders who carried them to far off places.

Why do settlements change?

Settlements change for many reasons. Read the following story about Delhi.

The city of Delhi can claim to have been central to many empires that ruled India. When India gained independence, the city remained its capital. But as you would have read elsewhere in this textbook and in earlier classes, partition at the time of independence resulted in mass migration – in and out of India. Hence one challenge for this city was accommodating the new population (immigrants) and settling them in new areas. Over the decades, the city has attracted people from all parts of India as they migrated in search of livelihood, jobs etc. As the capital of the country, with the Parliament and Central Government offices, there are people from all parts living in the city.

Today, Delhi is the second largest city with more than 1,60,00,000 people. In 1951 this was near 20,00,000. During the last 60 years it has grown 8 times. This rise in population was mostly due to in-migration. This has changed the composition and settlement patterns of the city.

Let us begin by looking at the types of areas where people live in Delhi. Though the data are for the year 2000, the pattern of settlement remains the same. We find that there were different types of slum areas or areas of the poor in the city. All of them started as being unauthorised colonies. Later on some of these areas were regularised and accepted by local authorities as valid settlements. These became the designated slum areas or resettlement colonies or regularised – unauthorised colonies. However other areas continue without being accepted as legal settlements such as the *Juggi Jhopdi* clusters and Unauthorised colonies. There were also some villages within the city. In all, as seen in the table below, only about 24% of the population was living in colonies that had proper legal status.

Table 1 : Type of Settlement and Population

Type of Settlement	Est Population in 2000 ('000s)	Percentage of Total Population of City
<i>Juggi Jhopdi</i> clusters	20.72	14.8
Slum designated areas	26.64	19.1
Unauthorised colonies	7.4	5.3
<i>Juggi Jhopdi</i> resettlement colonies	17.76	12.7
Rural villages	7.4	5.3
Regularised-unauthorised colonies	17.76	12.7
Urban villages	8.88	6.4
Planned colonies	33.08	23.7
Total	139.64	100

Source: Statement 14.4 of the Delhi Economic Survey 2008-09 (Government of Delhi 2009)

Every city usually has a master plan to design and allocate different types of areas. In any city there should be housing areas, markets, schools, industrial areas, office areas, parks and recreational areas and so on. Based on this, planners can decide what types of roads, how much water or electricity, how to dispose waste, how to clean sewage etc would be necessary. The city of Delhi had three such master plans. However, if we look at the current scenario it would appear that these plans have not been implemented. In fact, Delhi has grown in an unplanned manner. A planned colony usually has all facilities in place.



Fig 7. 3 : A middle class housing colony. Compare this with a low income housing colony in Delhi (on page 98)

Government has to announce areas demarcated for different purposes. The constructions in that area are expected to follow such an order. However, it is clear that such plans have not been followed.

On one hand there is growing population in the cities and on the other hand there is long delay in planning and announcing how the areas are to

be used. People who migrate to the city looking for work occupy land without necessary permission and build on it in the way they can afford with no help or facility from anyone. They remain unauthorised for long periods. When the plan is finally announced these areas may be demarked for a different purpose.

This leads to a difficult conflict situation. People face constant threat of eviction. They seek political patronage from being evicted from their homes. These colonies are not likely to be recognised because the master plan ignored their existence. Thus these colonies also do not receive many public amenities. People here are poor but provide essential services to the city. All this leads to corruption.

Some areas of Delhi, which had been villages in the past, have been taken over by either large builders or farmers who invested money to build houses on their farms. This may not be along the approved lines of the master plan. Sometimes villages themselves transformed their houses to accommodate large number of migrant population. Over the years some such colonies have got approval. The city continues to have people who depend on traditional livelihoods such as rearing buffaloes for milk, or making earthen pots since these goods are required by the city.

Many parts of the city, which have traditionally been common lands, are now occupied as *bastis* or slums. These could be areas on the river banks or earlier grazing lands. They are owned by local bodies. The people living in such areas are often the poor. These areas may not have proper streets or drainage, and are overcrowded. Some of them have legally been notified as slums while others are not. On many occasions there were conflicts on land rights. Often big builders or Delhi Development Authority (DDA) itself would evict people from the land that they have been living on for a long time. The compensation given under such circumstances may not be sufficient for them either to re-locate back to their

native places or afford a residence in planned areas of the city. Thus it often ends up that people move from one area to another and they occupy a new location that is not notified. Over time the process repeats itself. Thus settlements have been growing in an unplanned manner.

- Find out what factors have influenced the settlement of your place in the past ten years.

What kinds of places attracted settlements?

To understand this, we need to look at these basic concepts: (1) site (2) situation (3) the history of the place.

Site refers to the characteristics of the place – its topography, altitude, water characteristics (The place with lakes, rivers, underground water, etc.), types of soils, security, shelter from natural forces, and so on.

In early settlement periods, places which had favourable water supply and good protection from invasions were preferred. For example, Chhatrapati Shivaji built a fort in Pratapgad, Maharashtra. This site was chosen because of its altitude from where all the surrounding areas could be seen. This provided military security.

Places do not exist in isolation. They are in some way connected to other places. Situation describes the connections with other places. For example: Visakhapatnam is located on the coast and connects Andhra Pradesh to many places in and outside of India.

Visakhapatnam has a long history. It was ruled by different dynasties during pre-colonial times. During the 19th century, the British and French fought a naval battle over this city.

Coastal places were of immense significance for colonial powers because they could build ports there. These ports would enable export of raw materials to the colonising country.

In fact, cities such as Mumbai and Chennai were further developed by the colonial powers to better exploit the natural resources of India. The fight for Visakhapatnam was for similar reasons. Visakhapatnam as we now know it, is made up of several other places. After the British took it over, its boundaries were redrawn several times and have been constantly expanding.



Fig 7.4 : Fort in Pratapgad



Table 2

Population of Visakapatnam

Year	Population	%change
1901	40,892	
1911	43,414	+6.2%
1921	44,711	+3.0%
1931	57,303	+28.2%
1941	70,243	+22.6%
1951	1,08,042	+53.8%
1961	2,11,190	+95.5%
1971	3,63,467	+72.1%
1981	6,03,630	+66.1%
1991	7,52,031	+24.6%
2001	13,45,938	+123.0%
2011	20,35,690	+51.2%

Population change in Visakapatnam

1. In the population data given beside, are the numbers reported for every decade? If not, which decade's data is not reported here?
2. From which decade to which decade has the population increase been the highest (in percentage)?
3. From which decade to which decade has the population increase been the least (in percentage)?
4. Plot the absolute population of Visakapatnam on a line graph covering 1901-2011. What observations can you make about the changes in the absolute population size?



Fig 7. 5 : Visakhapatnam

Over the decades, Visakapatnam's population has grown significantly (see Table above). This growth is a result of the importance of Visakapatnam as a port city. This population increase also indicates growth in economic and social opportunities.

It is not just huge port cities that are connected to other places. All places are connected to each other. It is only a question of whether the connection is direct or indirect.

The weekly village market in a village is a very important way through which places connect. The bigger the weekly market is, the more important that village is. At these weekly markets, people from several neighbouring villages converge and conduct trade.

Some villages also host an annual fair which is a larger market along with many cultural elements. Many events are held including music, dance, theatre, etc. Both the weekly markets and such fairs are also important to plant and animal genetics in the area because local seeds and livestock breeds are traded here. These fairs also often result in intermarriage among people from different villages.

The villages that are best connected (most often by road, but river and other connections are also important in some places) have the most vibrant markets and fairs.



Review site and situation...

Column A contains features of a place. In column B, write site, if it is a site feature or situation, if it is a situation feature. In column C, write the ways in which this feature could impact.

A	B	C
1. Soil type is clay.		
2. Rainfall is heavy.		
3. Its main market is 45 kms by road from the coast.		
4. It has gently sloping land.		
5. It is on the main railway line.		
6. It does not have a hospital.		
7. It has many agricultural fields.		
8. It is connected by mobile towers to all other places		
9. It is within 10 minutes' walking distance from the river.		
10. It has one rice mill.		

Field work ... Understanding the settlement of your place

Go to some of the production locations you have noted (farms, factories, offices, shops, quarries etc.) in the sketch map you drew and find out where they get raw materials/ inputs from and where they send their goods. Which raw materials come from within your settlement? Similarly, find out whether the finished goods are sold only in your own settlement or sent to other places (if other places, find out where). Why did production begin here?

- Give some example of site features that has influenced production in the area.
- Give examples of situation features that influenced production in your area.
- How was production influenced by the history of the place?

How are settlements organised?

As settlements become more and more diversified in their characteristics, they also became more and more complex. Gradually, a network of places in a hierarchy has been formed (i.e., different levels of complexity).

Thus, for more complex needs, you have to go to a bigger place. For example: a big village or small town may have a Primary Health Centre (PHC). A PHC may be able to treat people for minor problems such as cold, cough, flu, small injuries, etc.

However, if you need some simple surgery, you will need to go to a bigger town. If you need heart surgery, brain surgery, or MRI scan (a method of taking a picture of the internal parts of your body), you will have to go to a big city where such a high-technology hospital is located. A high-technology hospital is usually not located in an isolated village.

- Consider your own place ...

The bigger a place is, the more variety of services you can find there. Take educational facilities as an example. This exercise can help illustrate how more specialised services are found in bigger places (i.e., places that are higher in the hierarchy).

1. What are the levels of schooling you can get in your place? E.g.: primary, high school, higher secondary (“+2”), college (undergraduate, postgraduate).
2. If you want to study beyond the highest level offered in your place, where would you have to go?
3. What kind of professional courses can you join in your place? E.g.: engineering, medicine, commerce, technical diploma, etc.
4. If you want some other professional course, where will you have to go?

- Atlas work ...

In your atlas look at a map of India. Notice how different places are shown using different sizes of symbols: national capital, state capital, other cities, etc. How many levels are shown using different symbols? Are tiny villages shown? Create your own table and arrange the places in decreasing order (i.e., most prominent place at the top, less prominent places as you go down). Here is an example table for you. Two examples are shown, fill in details for other places.

Level in the hierarchy	Type of place	Name	Symbol used
1	National capital	New Delhi	Star
2	State capital	Hyderabad	Large, dark black dot
3			

- Repeat this kind of study for any other country of your choice.

Urbanisation in India

In India, nearly 350 million i.e. one-third of population lives in cities and towns. People have been increasingly taking up non agriculture work and living in cities and towns; this is called urbanisation. A considerable section of population in the 1950s lived in 5.6 lakh villages and there were only 5 cities that had a population of more than 1 million each and the number of cities with 1 lakh population was about 40. Today the number of villages has increased to 6.4 lakhs and about 850 million

people live in these villages. Three cities – Mumbai, Delhi and Kolkata - accommodate more than 10 million people each. There are more than 50 cities that have a population of 1 million.

Most of the population increase in cities and towns took place as a consequence of natural growth within the urban areas. The population of these urban areas increased over time. Some of the growth in urban settlements took place by expansion, with the inclusion of rural areas surrounding older cities and towns. Only one-fifth of the growth is due to rural - to - urban migration.

Though there has been an increase in urbanisation, the necessity of providing basic infrastructure that can support this growth is missing. You require roads, drainage, electricity, water and other public facilities. Government intervention is making some headway in improving the urban infrastructure particularly those associated with road transport. However, the provision of electricity, water and health infrastructure is not sufficient. For poorer people in the cities and towns, this situation is even worse.

How does urban India contribute to India's economic development? Service sector activities such as finance, insurance, real estate and business related service activities such as transport, storage and communication contribute more than industrial activities. There is no major growth of industrial output over the last few decades.

Living in or moving into cities and towns is a boon only for a few. Although the level of poverty in urban areas is relatively lower than what is noticed in rural areas, there is a huge gap between the average income of a low income family and a high income family. This gap has also been increasing in cities and towns. Incomes earned in urban areas by the SC/ STs are far lower than other caste groups. In 2009-10, only about one-sixth of urbanites belonging to castes other than SC/ STs were poor whereas in the case of SC/ ST urbanites the poverty level is double. Most of these poor live in non metropolitan towns and work in the unorganised sector.

Indian settlements in hierarchy

The Census of India, organises settlements in India using certain criteria. In the Table 7.3 the Census department's definitions of various settlement types are given. Read them carefully and complete the exercise.

Given on page 97 is a pyramid. The bottom-most part of the pyramid shows the lowest level of the settlement hierarchy according to the Indian census. The top-most shows highest level. Fill in the details that are left blank:

1. The name given to the particular level of settlement (Two examples are shown).
2. Give one example of a settlement from Andhra Pradesh (except in Mega cities. Why?).

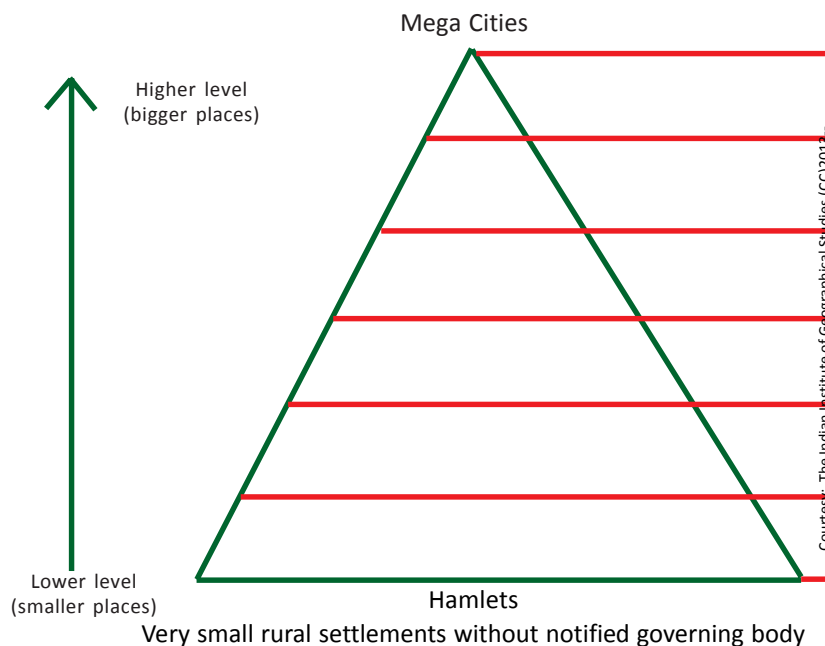
Table 3 : Indian settlements in hierarchy

Settlement type	Criteria used	Examples
Mega Cities	Cities having more than 10 million people	* Greater Mumbai UA (population 18.4 million) * Delhi UA (population 16.3 million) * Kolkata UA (population 14.1 million).
Metropolitan Cities / Million Plus cities	Cities having population between one million to 10 million	* Chennai (8.6 million) * Hyderabad (7.8 million) * Ahmedabad (6.2 million)
Cities/ Class 1 cities	Urban areas having population between 1 lakh to one million	With the help of your teacher identify 3 cities and give the details of population within Andhra Pradesh
Towns	All the urban areas having population between 5000 to 1 lakh	With the help of your teacher identify 3 towns in / nearby your area and give the details of population
Revenue / Census Village	A village with defined borders	With the help of your teacher identify 3 revenue villages in / nearby your area and give the details of population
Hamlets	A group of houses within the revenue village	With the help of your teacher identify one or two in a revenue villages in / nearby your area

3. Try to place the town where you live (if you live in a village show the town in which your school is located) at the correct level, in the space below, give 1 or 2 reasons for your choice.

4. Do you think settlements should be classified only on the basis of population? Can you think of any other way? Discuss with your teacher and identify the criteria for such classification.

Into the future, India is poised to follow the trend of many 'economically developed' nations in becoming predominantly urban.



Aerotropolis – jet-age city

A new kind of settlement is occurring in many countries, including India. These settlements are centered around large airports. Hence the name aerotropolis (or airport city).

In an aerotropolis the airport functions as a city in its own right. Many facilities (hotels, shopping, entertainment, food, business conferencing, etc.) are provided right there. People can fly in, conduct their business with their counterparts right there, and fly out – with all the comfort of a city, without the traffic and other problems.

Some form of aerotropolises are emerging in these places in India: Bengaluru International Airport, Indira Gandhi International Airport (Delhi), and Rajiv Gandhi International Airport (Hyderabad).

Elsewhere, examples of emerging aerotropolises include: Suvarnabhoomi International Airport (Bangkok, Thailand), Dubai International Airport (Dubai, UAE), Cairo International Airport (Cairo, Egypt), and London Heathrow Airport (London, UK).

- What is at the centre of an aerotropolis?
- Name any two facilities located at or near the centre of an aerotropolis.
- On an outline map of the world, locate and label the cities here in the examples. Name the country and the airport also on the map. Remember to use different types of text to identify the names of the country and the names of the cities and airports. Thus, it will be very easy to see which words are names of countries, and which are for cities and their airports.
- Suppose the place you have studied for this chapter gets an aerotropolis near it. Mention 3 ways in which the site features of your place may change. Similarly, mention 3 ways in which the situation features of your place may change.

Urbanisation problems

Increasing urbanisation is not just about greater opportunities for people, more economic productivity, etc. It also results in many problems. The growing urban population has to be housed. It needs water supply, sewage and other waste disposal,



Fig 7.6 : Low income residential area of Delhi

transportation, and many other things. All these result in environmental stress. As vehicle use increases urban air pollution increases causing health problems and localised climatic change. Improper sewage disposal can also lead to greater threat of infectious diseases.

One of the impacts of increased urbanisation is the use of materials that either do not degrade or take a long time to do so. This produces waste that has to be disposed off. Where do we put such waste? As urban areas expand, the waste is increasingly pushed to rural areas where they are either just dumped or taken to waste treatment plants. Look at the case study below.

Villagers up in arms against solid waste management plant

Staff Reporter The Hindu BERHAMPUR, December 11, 2012

The proposed solid waste treatment plant of the Berhampur Municipal Corporation (BMC) has faced another stumbling block.

Villagers of Mohuda area have started to protest against establishment of this waste treatment plant near their village. According to them, if this solid waste treatment plant was established near Mohuda pollution caused by it may affect a population of around 30,000 people as well as around 10,000 domestic animals of the area.

They also sent a memorandum to the administration in this regard. Sarpanch of Mohuda panchayat Sadhana Mohanty and some educational institutes of the area also expressed concern over this proposed waste management project of the BMC.

Earlier, this solid waste treatment plant was proposed to be established at Chandania hill on the outskirts of the city. Twenty acres of land had also been earmarked for the purpose.

Boundary wall

As per Berhampur Municipal Corporation sources, a boundary wall had been built up around the land patch at a cost of over 50 lakh rupees.

But it was found that the land at Chandania hill was forest land and unless it was transferred to revenue department and consequently to the Berhampur Municipal Corporation, the waste treatment plant cannot be established on the land.

So, an alternative site was searched for the proposed solid waste treatment plant on the outskirts of the city. Government land of over 30 acres located near Mohuda village was chosen for the purpose.

But from the very beginning the proposal has received opposition from peasants and villagers of the area.

As per a survey made in 2009, Berhampur was producing over 150 tons of solid waste every day.

In three years it must have increased, say Berhampur Municipal Corporation authorities. Nature of solid waste also changes every day as per change in lifestyle of inhabitants.

Survey

In February a survey was conducted in the city to assess the nature of solid waste generated in the area.

International Financial Corporation (IFC) is providing technological and tactical support for the solid waste management project to be established by the Berhampur Municipal Corporation.



Fig 7. 7 : Slum residences in Mumbai Photograph from 1940. The city continues to have; large slums

- Using your atlas, locate Berhampur.
- What is the issue about which the people of Mohuda village are upset?
- How many people and animals are expected to be adversely affected by the facility?
- What was the alternative location for the facility and why was it not used?
- What data does the report give about the quantity of solid waste produced by Berhampur?
- Berhampur Municipal Corporation authorities say that the amount of solid waste produced by the city “must have increased in three years.” Do you agree or disagree with their statement? Why or why not?

Key words

Settlement

Site

Situation

Urban

Rural

Agglomeration

Hierarchy

Megacities

Aerotropolis

Urbanisation

Metropolitan city

Improve your learning

1. What is a settlement?
2. How did human life styles change with settlement?
3. Define site features and situation features. Give one example for each from the place you live in.
4. How does the Census of India define various kinds of places? How does it organize them in order of size and other characteristics?
5. What is an aerotropolis? How is it structured?