

## Factors affecting Plant Location

**A Plant Location is a place, where men, money, material, machinery, etc are brought together for manufacturing products.**

Hardly any location can be ideal and perfect. Decisions regarding selecting a location need a balance of several factors affecting plant location. Now we will discuss each factor separately.

### Factors affecting Plant Location

#### 1. Nearness to Raw Material

Availability of the raw material near the plant will reduce the **cost of transporting** raw material from the vendor's end to the plant.

Especially those plants, which consume raw material in bulk, or need heavy raw material but loses a good amount of material in processing must be located close to the source of raw material.

#### 2. Transport facilities

One point must be kept in mind that **cost of transportation** should be small in proportion to the **total cost**.

Depending upon the size of the raw material and finished goods, a suitable method of transport like roads, rail, water, or air is selected, and site location is decided accordingly.

#### 3. Nearness to market

It reduces the cost of transportation as well as the chance of finished product getting **damaged and spoiled** in the way. If the industry is nearer to the market then it can catch a big **market share** by offering quick services.

#### 4. Availability of the labour

Another important factor that influences plant location decisions is the availability of labour. The combination of an **adequate** number of labour with **suitable skills** and **reasonable labour wages** can highly benefit the firm.

However, labor-intensive firms should select the plant location which is nearer to the source of manpower.

#### 5. Availability of fuel and power

Because of the wide spread use of electric power, in most cases, fuel has not remained a deciding factor for plant location. Even then steel industries are located near the source of fuel to reduce fuel transportation costs.

#### **6. Availability of water**

Water is used for processing, drinking and sanitary purpose. Depending upon the nature of the plant water should be available in adequate quantity and proper quality.

#### **7. Climate condition**

With the development of **heating, ventilating, and air conditioning** climate of the region does not present much problem for many industries.

But, for industries such as **agriculture, leather, and textile**, etc climate is an influencing factor. For such industries extreme humid or dry conditions are not suitable for plant location.

#### **8. Financial factor**

In order to attract the investment and large scale industries various states offer loans, subsidies, benefits, and sales tax exemptions to the new units.

So, choosing the state is an important factor in order to a new industries.

#### **9. land**

Area, shape of the site, cost, drainage, and other facilities, the probability of floods, chance of earthquakes, etc influence the selection of plant location.

#### **10. Presence of related industries**

An industry can outsource some of the parts from the related industries near the plant location. It reduces the headache of making every part within the plant.

#### **11. Availability of facilities**

Availability of basic facilities such as schools, hospitals, housing and recreation clubs, security etc can motivate the workers to stick to the jobs.

The success of industries depends very much on the attitude of its workers, so while selecting the plant location organization must be given preference to other facilities also.

#### **12. Disposal of waste**

Disposal of waste is becoming a major problem for industries like chemical, leather, sugar, etc. So, plant location should have proper provision for this.

These are the factors every industries need to consider while choosing a site location.

### **Types of Plant Location**

Plant Location can be two types–

#### **1. Localization or centralization**

**Localization or centralization** means concentration of similar types of plant at a same place.

**The advantage** of these types of site location is you can find raw material and production-related product near to your plant. The disadvantage is sometimes it increases the market competition.

**Example-** Pharmaceutical companies in **Gujrat**.

#### **2. Delocalization /Decentralization**

**Delocalization** means spreading the same types of industries at different places.

**The advantage** of this type of plant location planning is to reduce the competition and grab the market of new places. **The disadvantage** is sometimes it can be hard to find the **resources** (man, material, machines, etc).

**Example**– Banking industries.

### **Locational Economics**

An ideal **plant location** results in the lowest production cost and minimum distribution cost per unit. These costs are affected by a number of factors as I discussed above. The various costs which determine the locational economy are those of –

1. **Cost of land.**
2. **Cost of building or rent.**
3. **Cost due to procuring equipment and machinery.**
4. **Labour cost.**
5. **Water, power, and fuel cost.**
6. **Shipment or transportation cost.**
7. **Cost of raw material.**
8. **Paying taxes, etc.**

Other than these costs, community attitude, housing facilities are also considered during selecting a site location. The economic aspects of locations are considered or run an economic survey and analysis to decide, which is the best location.

### **Rural vs Urban Plant Location**

## **Selecting the Plant Location in Urban site**

### Advantages of selecting plant site in a city

1. A city is always well connected by road, rail and air.
2. The city itself provides a market for the manufactured products.
3. Efficient and skilled workers available within the city.
4. Enough power and water are easily available.
5. Hospitals, shopping complex, school, bank, recreation club, etc. facilities are available in an urban area.
6. Sometimes factory can be set up in an existing available building.
7. Workers and foremen's training institute can be found in cities.
8. Many other industries related to your product are available, so outsourcing can be easily done.

### Dis-advantages of selecting plant site in a city

1. Available land can be limited in area.
2. Cost of land or construction is quite high.
3. Expansion of the factory is not easily possible.
4. Taxes in cities are high.
5. Salary of worker is high.
6. Problems due to union is more in urban sites.

## **Selecting the Plant Location in Rural site or small town**

### Advantages of selecting plant location in Rural site

1. In a rural area, plenty of lands is available for factory setup and expansion purpose.
2. cost of land is cheap.
3. Cheap labour is available but the company have to train them to suit the requirement of the work.
4. There will be no union problem, so employee-employer relations are good.
5. Municipal and other regulations and taxes are easy.
6. The government gives inducements as it wants to develop the rural areas.

### Dis-advantages of selecting plant location in Rural site

1. Skilled workers not available, giving the training is a time-consuming process.
2. There is no proper infrastructure like rail, road and air or may not be adequate.
3. Enough power is not available.
4. Rural areas are far from the market, so transportation cost is high in this case.
5. Hospitals, schools, recreation clubs may not available there.

6. High-grade executive and officers may not like to live in a small town.