## Localisation of Iron and Steel Industries in the World

by Smriti Chand Industries



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## Localisation of Iron and Steel Industries in the World!

The establishment, development and concentration of iron and steel industry requires many things. It must collect raw material and power resources to produce things. It requires finances, machinery and labour to keep it running. It requires a market to sell its produce and above all it requires transport facilities.

At the early period of growth, location of iron and steel industry was entirely governed by the ratio of raw material assembling cost and distribution cost of finished product to the consumer. While considering localisation of iron and steel industry, two sets of factors are important.

The primary factor is, of course, availability of raw material, market, energy supply and labour. While second category of factors are the factors of survival, such as (i) establishment costs like taxes, duties, rent, etc., and (ii) production cost, e.g., labour, wage, transport charges, sales tax, income tax, etc.

Basically, iron and steel industry is a resource-based industry; therefore, its location is determined by raw materials as well as by availability of power resources. The capital, market and transport are the other factors influencing the localisation of iron and steel industry.

Raw material and power resources are key components of the establishment, development and concentration of iron and steel industry. Many of the world's famous steel centres of today have had their inception during the 19th and early 20th centuries at the places where iron ore and/or coal were available.

Although, technology of production of steel now has changed but the factor of raw material still plays a vital role.

Both coal and iron ore are localised raw materials. In earlier days, roughly two tons of coal was necessary for smelting one ton of iron ore yielding, say 50 per cent metal. Thus, two tons of coal and one ton of iron ore produced half a ton of finished steel.

As suggested by 'least-cost location' school headed by Weber, all the raw materials and energy resources used to manufacture iron and steel are localised and impure or weight-losing material. So, the Weberian concept reveals that coal area is the most suitable location, as far as transport costs are concerned.

Initially, iron and steel plants had a clear tendency towards coal areas. But, with the passage of time, new technologies were introduced which were, on the one hand, fuel saving, and on the other hand, the requirement of iron ore volume also came down.

The LD converters and Oxygen processes need very little fuel. In fact, the continuous casting and introduction of electric furnaces do not require coal as fuel, rather it uses electric energy, may be hydel or nuclear.

