

11. Primary industry

Industry is one of the two basic economic activities (besides agriculture, which later became a part of it). In the course of time *manufacture* along with *trade* developed into **industry**.

Industry = a system =>

- *inputs* (besides natural factors – raw materials, water, energy – also socio-economic factors, e.g. labour, capital, government policy)
- *processes* (transport, processing, manufacturing, dispatching)
- *outputs* (products for market)

What is traditional classification of industry by position of production process to sources of raw materials?

- primary industry
- secondary industry
- tertiary industry

Primary industry refers to:

- **direct, extractive use of the Earth's resources**
- **agriculture**
- **fishing**
- **forestry**
- **mining and quarrying.**

All these provide *fuel and raw materials* for other industries.

What are 2 main types of the Earth's sources?

1. renewable sources (reproducible), e.g. crops, trees, fish, etc.
2. non-renewable sources (wasting resources), e.g. fossil fuels, iron/copper ore, etc.

In the past, during the industrial revolution, close access to raw materials was essential, because transport was expensive and complicated (railroads and horses only). Also manufacturing industries were situated close to sources of energy (coalfields)

But nowadays, not many manufacturing industries use raw materials directly. Many firms don't process raw materials, but buy components (semiproducts) and assemble them to make their final product => these products are then cheaper and easier to transport. Modern industries don't have to be situated close to sources of energy ⇔ there is a *National Grid of Electricity*, which can supply energy to any place in the country.

Types of industry by sectors

Extractive industry (Low-technology industry) = PRIMARY

- *Extraction of raw materials* (crude oil, natural gas, black/brown coal, iron/copper ore, non-ferrous metals)

Processing industry (Mid-technology industry) = SECONDARY

- *Heavy industry*
 - Power industry
 - Metallurgy/Smelting industry
 - Machine engineering (e.g. car industry)
 - Chemical industry
 - Armament industry (production)

- *Light industry*
 - Textile industry
 - Food processing industry
 - Printing industry
 - Leather industry
 - Paper and pulp (cellulose) industry

Distribution of primary industry

= very heterogeneous/unequal ⇔ ¾ of world's industrial production is concentrated to several regions:

- ❖ **NE USA** – Great Lakes and Atlantic (East) Coast ⇔ lot of supplies and cheap water/ship transportation
- ❖ **W EU** – from Central England to N France to Benelux countries to Rhine region in Germany ⇔ traditional industrial areas with great reserves of raw materials and advantageous transport location
- ❖ **Japan** – island of Honshu and Kyushu ⇔ lack of raw materials but sufficiency in skilled labour force => mid-tech/high-tech industry = very important role in world's economy
- ❖ **Newly Industrializing Countries (NICs) of E and SE Asia** – South Korea, Singapore, Hong Kong, Taiwan), e.g. concentration of mid-tech industry (car production)
- ❖ **Russia and CIS** – vast reserves of raw materials (oil, natural gas, iron ore, non-ferrous metals), e.g. concentration of heavy industry in Volgha and Dnipro region

World's oil extraction (2000, millions of tons): Saudi Arabia 442, USA 353, Russia 323

World's natural gas extraction (2000, millions of tons): Russia 545, USA, 544, CAN 168

World's coal extraction (2000, millions of tons): USA 566, China 502, India 157, AUS 153

World's crude steel production (2000, millions of tons): China 129, Japan 106, USA 102

World's aluminium production (2000, millions of tons): USA 3.7, Russia 3.2, China 2.6

World's copper ore extraction (2000, millions of tons): Chile 4.5, USA 1.45, Indonesia 0.85

OPEC – Organisation of Petroleum Exporting Countries

Keywords:

inputs/processes/outputs, primary/secondary/tertiary industry, quarrying, renewable/non-renewable sources, semiproduct, coalfields, extraction of raw materials, mining of iron/copper ore, types of primary industry, CIS