



Rabindranath World School
W-10/3120, DLF Phase III, Gurgaon (HR)

Class XII- Study Material **(2021-22)**

India People & Economy

Index

Chapter No	Chapter Name	Page No
1	Population: Distribution, Density, Growth and Composition	3
2	Migration	7
3	Human Development	9
4	Human Settlements	11
5	Land Resources and Agriculture	14
6	Water Resources	19
7	Mineral and Energy Resources	22
8	Manufacturing Industries	26
9	Planning and Sustainable Development in India	34
10	Transport and Communication	36
11	International Trade	40
12	Geographical Perspective on selected	43

Chapter-1

Population: Distribution, Density, Growth and Composition

Distribution of population

1. Population is distributed unevenly
2. UP has the highest population followed by MS Bihar, WB, AP
3. MS, UP, BI, WB, AP TN MP RAJ KK GUJ account for 76% of population
4. Arunachal Pradesh 0.11% Uttaranchal 0.83%

Factors responsible for uneven distribution of population

1. **Physical Factors:** climate, water, terrain, transport
2. **Socio Economic Factors:** Settled Agriculture. Agri. develop. pattern of human settlements, dev. Of transport, industries, urbanization
3. **Historical Factors:** development of cities such as Mumbai, Kolkata, Chennai by British

Density of Population

- Number of persons per unit area
- The density of population (2001) is 313/ sq km.
- Lowest in Arunachal Pradesh: 13/ per sq km NCT: 9340
- WB; 903 Bihar: 880
- Himalayan states and North East have low density whereas Ganga plain has highest density and other states have moderate population
- Physiological density = $\frac{\text{total population}}{\text{net cultivated area}}$
- Agricultural density = $\frac{\text{total agricultural population}}{\text{net cultivated area}}$

Growth of Population

Change in the number of people living in a particular area between two points of time. It is expressed in %.

Two components: 1. Natural 2. Induced natural growth is analyzed by crude birth rate and crude death rate

Induced growth is calculated with the immigration -outmigration

The annual growth is 2.4% in 36 years its population will be doubled

Stages of Population Growth

Stage I: 1901 -1921 stagnant growth, slow growth rate, BR & DR were high, poor medical facilities, low literacy rate, inefficient distribution of food and basic facilities.

Stage II: 1921-51: steady growth, improvement in health and sanitation low mortality rate. better transport facilities, high birth rate and decline death rate. The influence of world war and Economic depression influenced

Stage III: 1951-81: Population explosion, rapid fall in mortality rate, high fertility rate, introduction of five year plans, improvement of living condition, increased migration,

Stage IV: 1981 onwards: growth rate declined, crude birth rate declined due to increase marriage age, improved quality of life & education.

Regional Variation in Population Growth

It is less than 20% in southern states. It is high in north west central and northeastern states.

The adolescents % is 22% male 53% female 47%

Features of adolescence population: high potential, quite vulnerable

Challenges Faced by Adolescence

1. Lower age at marriage
2. Illiteracy
3. Female illiteracy
4. School dropouts
5. Low intake of nutrients
6. High rate of maternal mortality of adolescent mothers
7. High rate of HIV AIDS
8. Physical and mental disability
9. Drug abuse alcoholism
10. Juvenile delinquency
11. Crime Steps taken by the government to channelize the adults
12. National youth policy
13. Encourage the youth for constructive development of the society
14. Improve patriotism and responsible citizens
15. Youth empowerment
16. Giving importance for youth health, sports and recreation
17. Innovation in the field of science

Population Composition

1. Age and Sex
 2. Place of residence
 3. Ethnic characteristics
 4. Tribes
 5. Language
 6. Religion
-

-
7. Marital status
 8. Literacy
 9. Education
 10. Occupation

Rural Urban Composition

1. 72% lives in villages
2. India has 638588 villages according to 2001 census
3. The state of Bihar and Sikkim have very high % of rural population
4. Goa and Maharashtra have low rural population
5. UT s have low rural population except DDNH
The size of villages varies from
6. In the ne India Rajasthan it is less than 200 persons
7. It is more than 17 thousand persons in Kerala Urban population. It is equal to 27.8% it is quite low.
8. It is increased due to economic development, improvement in health, hygienic conditions
9. It is high in the peripheral areas of metropolitan cities

Linguistic Composition

1. According to Grierson there are 179 languages 544 dialects, there are about 22 scheduled languages
2. Hindi speakers are 40.42% the smallest language is Kashmiri 0.01%

Language Families

1. Austric (1.38%) –Monkhemar – Meghalaya Nicobar, WB, BI, OR, AS, MP, MS
2. Dravidian (20%) TN, KK, KER, AP, MP, BI, OR,
3. Sino Tibetan(0.85%) J&K, HP, SK, ARP, AS, NAG, MAN, MZ, TRI, MEG
4. Indo-European-outside India, J&K PUN, HP, UP, RAJ, HAR, OR, WB, AS, GUJ, MS, GOA

Religious Composition

- Hindus are distributed all states except Indo Pak border, J&K NE states
 - Muslims are concentrated in J&K WB, KER,UP, Delhi
 - Christian pop is concentrated in western coast NE states
 - Sikhs are concentrated in NW India
 - Jains Buddhists are concentrated in RAJ, MS, KK
 - Tribes are located in ne India
 - Hindus -80.5% muslims-13.55 Christians – 2.3% Sikhs 1.9% Buddhists 0.95 jains-0.45 others-0.6%
 - Composition of working population
 - Main worker; work more than 183 days
-

-
- Marginal worker: less than 183 days
 - 39% worker 61% non-workers
 - Large % of dependent population. Large number is unemployed
 - 25% working population in Goa, 53% in Mizoram

Occupational categories

1. Cultivators
2. Agricultural laborers
3. House hold industrial workers
4. Other workers

Spatial Variation of Working Participation

1. HP and Nagaland have high proportion of cultivators
2. AP, CHHTIS, ORI, JHAR, WB high proportion of Ag. Workers
3. In urban centers high proportion of services
4. Non availability of land and presence of industries encourage workers

Chapter-2 Migration

List:

1. It was noted in first census 1881.
2. Based on place of birth
3. In 1961 two components introduced a. place of birth b. duration
4. In 1971 place of last residence and duration in the place of enumeration is added in 1981
5. Place of birth: if the place of birth is different from the place of enumeration – life time migrant
6. Place of resident: if the place of last residence is different from the place of enumeration-known by last residence.

Streams of migration

1. Rural to urban, 2. rural to rural 3. urban to rural 4. urban to urban
2. During 2001 315 million migrants- based on last residence
3. 98 million changed their place of residence in the last ten years
4. the stream was dominated by female migrants
5. Female predominate the streams of short distance rural to rural migration
6. Male domination in rural to urban
7. 96% migrated from neighboring countries to India

Spatial variation

1. Migrants from UP Bihar came to MS, Delhi, GUJ, HAR
2. MS stands first in immigration
3. Greater Mumbai received highest no. of migrants

Caused of migration

1. Push Factors
2. Pull Factors

Push Factors: Migrate from rural to urban due to poverty, high pop. pressure on land, lack of basic facilities, flood, drought, cyclonic storms, earthquake, wars local conflicts.

Pull Factors: Better opportunities, presence of regular work, higher wages, higher education, health facilities, source of entertainment.

Marriage migration is only 2% in the country

Consequences of migration

1. Uneven distribution of population over the space
2. Benefit both the places of migration

Economic consequences

1. Major benefit is remittance sent by migrants
2. It is one of the source of foreign exchange
3. In 2002 it was 11 billion dollars
4. PU, KER, T.N Receive Significant Amount

-
-
5. Remittance used for food, repayment of debts, treatment, marriage, child education, agricultural inputs, construction of house.
 6. People migrate from UP, ORI, MP to PUN, HAR is high %

Demographic consequences

1. Redistribution of population
2. Pop. Increases in cities
3. Age and skill pop. Migrate from rural to cities
4. Imbalance in age sex composition

Social consequences

1. Migrants act as agents of social change
2. New technology, family planning, girl's education is diffused
3. Intermixing of different cultures
4. It is positive change for national integrity but leads to unanimity
5. It creates social vacuum and sense of dejection
6. People may fall in antisocial activities

Environmental consequences

1. Pressure on existing facilities
2. Formation of slums shanty colonies
3. Over exploitation natural resources leads to pollution
4. Depletion of ground water
5. Sewage disposal became major problem

Others

1. Change in women status
2. Male selective migration in rural areas
3. Women migration leads to autonomy but causes vulnerability to problems
4. Loss of skilled persons in rural areas

Chapter-3 Human Development

“Human development is a process of enlarging the range of peoples’ choices, increasing their opportunities for education health care income and empowerment and covering the full range of human choices from a sound physical environment to economic social and political freedom”

Human Development Report: “progressive democratization and increasing empowerment of people are seen as the minimum conditions for human development”

Human Development in India

1. India ranked 127 among 172 countries
2. HDI value is 0.602
3. Fall in medium group among the nations
4. Low score is due to

Historical Factors

Colonization, imperialism, neo imperialism,

Socio cultural factors

Human rights violation, social discrimination, crimes, terrorism, war

Political factors

Nature of state, form of government, level of empowerment,

Indicators of economic attainments:

1. Access to all resources by all the people
2. GDP (RS.3200 THOUSAND crore), per capita income (Rs 20,8130 are the units to measure HDI
3. Prevalence of poverty, deprivation, malnutrition various types of prejudices
4. Large scale regional disparities
5. MS, PUN, HAR GUJ, DEL, have high per capita income
6. Low per capita income is found in UP BI ORI MP AS J&K

Indicators of healthy life

1. Long life without ailment is called longevity
2. Availability of pre, post health care facilities decrease the death rate
3. Old age health care, adequate nutrition and safety of individual are important measures for health
4. Death rate decreased from 25.1 / 1000 to 8.1 /1000
5. IMR decreased from 148 to 70
6. Life expectancy increased from 37.1 years to 65.3 years
7. Decreased birth rate from 40.8 to 26.1
8. Decline in sex ratio in rural areas is alarming

Indicators of social empowerment

1. Access to knowledge about society and environment
2. Literacy rate is the indicator of social development
3. Literacy rate increased to 65.4%
4. Literacy rate is Higher than the national average in many states
5. Kerala has highest and Bihar has lowest literacy

Human development index in India

1. Kerala with 0.638 placed on the top
2. Orissa with 0.404 placed at the bottom
3. Due to highest sex ratio and literacy Kerala place on the top
4. Due low sex ratio, per-capita income, and low literacy Orissa kept at the bottom

Reasons for low HDI

1. Low literacy rate
2. Low economic development
3. Regional disparities of British continued

Population environment and development

1. Social inequalities, discriminations deprivations displacement of people, abuse human rights cause low HDI.
2. Methods to increase the HDI
3. Sustainable development
4. Govt. Expenditure on public health and education
5. Increase social and political freedom

Chapter-4 Human Settlements

General: cluster of dwellings of any type or size where human beings live. They vary in size from hamlet to metropolitan cities, they may be small and large closed or spaced, they may practice primary / secondary / tertiary activities

Difference between Rural and Urban settlements

Rural	Urban
1. Primary occupation	1. Other than primary
2. Provide raw material	2. Process the raw material
3. Produce food	3. Provide services
4. Low income	4. High income
5. Low density	5. High density
6. Spaced	6. Clustered

Types of rural settlement

Clustered settlements;

1. Compact and closely built houses
2. Living area is different form surrounding farms
3. Recognizable pattern
4. Different shapes such as geometric rectangular, radial, linear,
5. Sometimes defense may cause shape of the settlement
6. Availability of water also decides the shape.

Semi-clustered settlements

1. Formed due to result from tendency of clustered in restricted area of dispersed settlement
2. Segregation of large settlement may also cause
3. Some may be forced to live separately from the main village
4. Dominance group live in the center of the village
5. People of lower strata live in out skirt of the village
6. Most common in GUJ. RAJ

Hamleted settlements

1. Physically separated and located in different place having common name
2. They are locally called panna, para palli,nagla ,dhani
3. They are motivated by social and ethnic factors
4. Found mostly in middle and lower ganga valley

Dispersed settlements

1. They are isolated huts are hamlets
2. Located on hills or agricultural lands
3. It is due to nature of terrain, and land resource, water
4. Found in Meg, Uttaranchal, HP, Ker.

Urban settlements

1. Compact and large in size
2. Non Agriculture, eco, admin activities
3. Exchange of goods and services
4. Directly linked with rural settlements

Evolution of cities

Ancient towns:

1. Developed as religious and cultural towns.
2. Over 2000 years' old
3. Patna, Varanasi, Madurai, are examples

Medieval towns:

1. They are the headquarters of kingdoms
2. There are more than 100 towns
3. They are fort towns developed over ruined forts
4. Delhi, HYD, Jaipur, Lucknow, Agra and Nagpur

Modern town:

1. They are developed by British and other Europeans
2. Generally located on the coast
3. They were forts constructed by Europeans
4. Ex. Surat, DD, Goa, Pandy, Mumbai. Madras, Calcutta

Administrative HQ Chandigarh, BBSR, Gandhinagar, Dispurplanned cities developed after independence.

Urbanization in India

1. Percent of urbanization in India is 28%
2. Urbanization developed 11 fold during 20th century
3. It is due to development of planned cities

Classification of towns open the basis of population size

CLASS I >100000 Population

CLASS II 50,000- 99,999

CLASS III 20,000- 49,999

CLASS IV 10,000-19,999

CLASS V 5000-9,999

CLASS VI < 5000

1-5 Million is called metropolitan city

5 million mega cities

Urban agglomeration: Town and its adjoining urban outgrowths, Two or more towns with or without their outgrowth, The city and one or more adjoining towns. Ex. Out growth: railway colony, university, port area, military cantonment.

According to 2001 census there were 423 first class towns and 35 metro cities in India six of them are mega cities greater Mumbai is the largest city in India

Functional Classification of Towns

1. Administrative towns: All capitals of states with national capital
2. Industrial towns: Mumbai, Salem, Coimbatore, Modinagar, Jamshedpur
3. Transport towns: Kandla, Cochin, Vizak
4. Commercial towns: Satna, Kolkata
5. Mining towns: Digboi, Raniganj, Jharia
6. Garrison cantonment towns: Ambala, Mhow, Jalandhar
7. Educational towns: Pilani, Aligarh, Varanasi
8. Religious cultural towns: Amritsar, Varanasi, Tirupati
9. Tourist towns: Shimla, Mussori, Nainital

Chapter-5

Land Resources and Agriculture

Land use categories

1. Forests
2. Land put to non-agricultural use
3. Barren and waste land
4. Area under permanent pastures
5. Area under miscellaneous tree crops
6. Culturable waste land
7. Current fallow land
8. Fallow other than current fallow
9. Net Sown Area

Land use changes in India

Three types of changes

- I. Size of economy: grow over time, change in income level, marginal lands will become useful
- II. Composition of the economy: the secondary and tertiary grew much faster than primary sector. Land from Ag. Use to non Ag use such as built up area
- III. The contribution of agricultural activities reduces over time The share of Ag. Is declined. No. of people fed by Agri. is increasing

Increase in three categories

- 1.i. Forest.
 - ii. Area under nonagricultural use
 - iii. Current fallow land
2. Four areas declined
 - i. Barren and waste land
 - ii. Cultivable wasteland
 - iii. Area under pastures & tree crops
 - iv. Net sown area

Common property resources

1. Private 2. Common property

- I. The CPTS are used by common purpose / society owned by state
- II. Provide fodder for livestock fuel for the house holds
- III. Produce minor forest products such as fruits, nuts, fibre, medicinal plants
- IV. Every member has right to access

Agricultural land use in India:

1. Contribution of land in agricultural use is more important
2. Lack of access to land leads to poverty
3. Productivity depends on quality of land
4. Land ownership has social value in rural areas

Total cultivable land is = Newtown area + Fallow land + Alterable waste land

1. Since there is no extra land available only the high yielding varieties can increase the productivity
2. Number of times the land can be increased by providing Irrigation Crop intensity can be raised

Cropping seasons

Season	Period	Crops
Kharif	June-Sep	Rice, Cotton Millets Ground Nut
Rabi	Oct-Nov	Wheat Gram, Rice Maize Millets
Zaid	April-June	Veg. Fruits

Types of farming

Based on moisture for the crops

Irrigated farming

1. It is protective/ productive of crops,
2. Due to moisture deficiency irrigation is essential
3. Supplementary to the rainfall
4. To increase cultivable area
5. To achieve high productivity

Rain fed farming

1. Divided in to two types a. Dry land farming b. wet land farming
2. Dry land farming located in the area of less than 75 cm rain fall
3. drought resistant crops are grown
4. Millets, maize fodder crops
5. practice rainwater harvesting

Wetland farming

1. Found in areas of high rainfall zones
2. Water intensive crops such as rice, sugarcane, jute is grown

Cropping pattern

Food grains

Cereals:

Rice: grown on sea level to 2000 mts altitude,

3000 varieties are grown

grown in three seasons AUS AMAN BORO in west Bengal / Kharif. Rabi season.

22% of rice production in India.

second after china.

¼ area is under rice cultivation.

WB, PUN UP rice is grown

Wheat: Second most important crop,

12% of production is from India,

Generally, in winter it is grown.
Grown in North and central India,
Irrigation is essential.
Rain fed crop in Himalayan region.
14% is under wheat cultivation.
UP, PUN, HAR, RAJ. Are leading producers

Jowar: 16.5 % cropped area is under this crop,
Main food crop in semiarid areas,
Maharashtra alone produces ½ of the production,
Others are KK, MP AP

Bajra: Hot and dry climatic conditions are needed.
Grown in drought resistant crop,
It is cultivated alone or mixed crop,
5.2% of total cropped area.
Leading producers are MS, GUJ RAJ, HAR

Maize: Grown any type of land.
It is food and fodder crop,
3.6% total cropped area,
it is grown all over India,
the leading producers are MP, AP. KK, RAJ, Yield is high in southern state

Pluses: Rich source of protein,
Increase natural fertility.
Used in crop rotation,
India is leading producer of pulses.
Concentrated in dry lands,
11% of total cropped area. GRAM, TUR ARE MAJOR CROPS.

Gram: Cultivated in subtropical area,
Rain fed crop,
2.8% of total cropped area,
Leading producers are MP, UP, MS, AP, RAJ

Tur(arhar): Second important pulse crop,
It is also called red gram or pigeon pea,
Rain fed crop,
2% of total cropped area,
Leading producers are MS. UP, KK GUJ

Oil seeds: ground nut: 17% of total production of the world is in India
Rain fed,
Grown in Kharif season,
3.6% of total cropped area,

Leading producers are GUJ, TN, AP, KKA MS

Rape seed, mustard:

Consists of rai sarson toria taramira,
They are subtropical crops,
Grown in Rabi season,
Frost sensitive,
Irrigated crop,
2/3 under irrigation,
2.5 % of cropped area is under this crop.
2.6 Leading producers are RAJ, UP, HAR, WB, MP

Fibre crops:

Cotton: Grown in Kharif season,

Semi-arid region,
Short staple and long staple are grown,
Black soil is suitable,
India ranks 4th in the world.
After China USA and Pakistan.
% of world production.
4.7% total cropped area. Leading producers are PUN, HAR, RAJ, GUJ MS. AP KK

Jute: Used for packing material,

Cash crop,
India produces 3/5 of the world production.
0.5 % total cropped area is under this crop,
Leading states are: WB, BI, AS
Other Sugarcane:
tropical crop,
cultivated in sub-humid regions,
irrigated crop,
India is the second largest producer,
23% of world's production come from India.
of cropped area is under this crop.
The leading producers are UP, MS, KK, TN, AP

Tea: Plantation crop,

tea leaf has high content of caffeine and tannin.
Grown in hilly areas,
heavy rainfall is needed,
started in 1840 in Assam by British.
Grown Darjeeling, Jalpaiguri, Nilgiris, Western Ghats,
28% of world production comes from India.
India rank 3rd after Sri Lanka & China.
53.2% total cropped area is under this crop.
Leading producers are WB & TN

Coffee: Three varieties ARABICA, ROBUSTA, LIBERICA,

4.3% of world production comes from India.

Sixth after Brazil, Vietnam, Colombia, Indonesia, Mexico. Leading producers are KK, TN, KER

Agricultural development in India:

1. 53% of population depends on agriculture
2. 57% land is meant for cultivation
3. 0.31% of hectares per capita

Strategy of development: Govt. of India took steps to increase the production

- i. Switching over from cash crops to food grains
- ii. Increase crop intensity
- iii. Increasing cultivated area
- iv. Improvement of irrigation
- v. Intensive agricultural district programme and intensive agricultural area programme were launched
- vi. Use of HYV seeds, fertilizers, irrigation, pesticides,
- vii. Use of package technology
- viii. Introduction of Green Revolution
- ix. Large agriculture inputs

Growth of agricultural output and technology

1. Production and yield increased (wheat, rice, oil seeds, sugarcane, tea pulses, cattle, milk, ground nut)
2. Expansion of irrigated area
3. Use of HYV seeds
4. Use of modern agricultural technology
5. Increased consumption of chemical fertilizers

Problems of Indian agriculture

1. Uneven and unreliable rainfall
2. Low productivity
3. Poverty of the farmers
4. Lack of land reforms
5. Fragmentation of land holdings
6. Lack of commercialization
7. Vast under employment
8. Degradation of cultivable land
9. Illiteracy of the farmers

Chapter-6 Water Resources

Water resources in India:

1. India accounts 2.45% of world surface area
2. 4% of world water resource
3. 16% of population
4. Total water available from precipitations 4000 cubic km
5. Surface water and replenish able water is 1869 cubic km
6. 60% only useful is about 1122 cu.km

Surface water resources:

1. There are four major sources of surface water
2. River, lake, ponds, tanks
3. 10,360 rivers are present with more than 1.6 km length each
4. Mean annual rainfall is about 1869 cubic km
5. 60% only usable it is equal to 1122cubic km

Surface water resources:

1. Four major sources of surface water
2. River, lakes, ponds, tanks
3. There are 10,360 rivers with the length of more 1.6 km
4. There is about 1869 cu, km of water is available
5. Only 690 cu,km usable

Ground water resources:

1. Total replenish able ground water is 432 cu.km
2. 46% available from Ganga and Brahmaputra river basins
3. Level of utilization of ground water is high in NW and south India
4. Low in CHH, OR, Kerala
5. Moderate in GUJ, UP, BI, Tripura, MS

Water utilization:

Surface water:

1. Agriculture= 89% domestic=9% industrial 2%

Ground water resources:

Agriculture=92% industrial= 5 domestic=3%

Demand for irrigation

1. Uneven distribution of rainfall
 2. Seasonal rain fall
 3. High temperature causes more evaporation
 4. To grow water intensive crops
 5. To increase production
-

-
-
6. To crops in dry season
 7. To introduce green revolution

Deterioration of water quality:

1. Per-capita availability of water is dwindling day by day
2. Increasing population
3. Increase the standard of living
4. Ground water pollution
5. Urban waste and industrial waste is left in to the rivers
6. Cultural activities produce more wastage in to the rivers
7. Ganga and Yamuna are most polluted rivers in India

Water conservation and management:

1. Adopt laws and acts to conserve water
2. Use water saving methods and technology
3. prevent water pollution
4. Watershed development
5. Rainwater harvesting
6. Water recycling and reuse

Prevention of water pollution:

1. The central pollution control board along with state pollution control boards should monitor the pollution
2. Frequent supervision is essential
3. The other rivers such as Sabarmati, Gomati, Kai, Addayar, Vaigai, also to monitor for pollution
4. Monitoring the industries located along the river banks

Recycle and reuse of water:

1. Low quality of water can be used for industries
2. Water from domestic centers to be used for garden
3. Water used for cleaning vehicles also used for gardening

Water shed management

1. Efficient management of surface and ground water and conservation is called water shed development.
 2. Prevention of runoff, storage and recharge of groundwater through percolation tanks, recharge wells.
 3. Bring balance between natural availability and utility
 4. It depends on community participation
 5. "HARYALI" is the water shed development started by Central Govt.
 6. "NERU-MEERU" by AP govt. "ARVARY PANI SANSAD" by Government of Rajasthan.
 7. Construction of check dams, plantation,
 8. Making compulsory to the public to make rainwater harvesting before constructing building done in TN
-

Rainwater harvesting:

1. It is the method of capturing and storing rainwater, for various uses.
2. Refilled the ground water wells
3. It improves water quality
4. Reduces the water pollution
5. Dilution of salts takes place in the water
6. Rainwater harvesting is practiced in different areas by different tribes
7. Harvesting through service wells, recharge wells kund or tanka
8. It increases ground water level

National water policy

1. Multipurpose projects should include drinking water
2. Provide drinking water to all animals and man is first priority
3. Regulation of exploitation of ground water
4. Both ground and surface water quality should be regularly
5. Increase the efficacy use of water
6. Awareness of importance of water to be imparted to the common people
7. Conservation of water to be realized by the all people

Case study Ralegan Siddhi

1. It is an example for watershed development
 2. A retired army personnel realized the importance of water shed and convinced the public
 3. Voluntary participation took place and developed the water shed
 4. The status of village is changed
 5. Dependency started declining
 6. Tarunmandal was formed to control pollution
 7. Controlled grazing started
 8. Dry crops were started growing
 9. Community leaders took the control of the village
 10. People developed each other
 11. It is the model village in India
-

Chapter-7 Mineral and Energy Resources

A mineral is a natural substance of organic /inorganic origin with definite chemical and physical properties.

Types of minerals

Metallic minerals

- A. Ferrous: iron manganese
- B. Non-ferrous; copper bauxite

Nonmetallic mineral

- A. Fuel mineral: coal, petroleum,
- B. Other non-metallic: lime stone

Agencies involved in the exploration of minerals

1. Geological survey of India
2. Oil and natural gas commission
3. Mineral exploration corporation ltd
4. National mineral development corporation
5. Indian bureau of mines
6. Bharat gold mines
7. Hindustan copper ltd
8. National aluminum ltd
9. Dept. Of mining and geology

Distribution of minerals

1. Metallic minerals occur in peninsular region
2. Coal reserves are found in valleys of Mahanadi, Godavari, Sone, Damodar
3. Petroleum occur in sedimentary deposits of Assam and Gujarat
4. New reserves are discovered in Krishna Godavari Cauvery basins
5. Most of the minerals occur in east of line linking Mangalore a Kanpur
6. There are located in three broad belts

North eastern plateau region

1. cover WB, ORI, CHH
2. Minerals are iron coal manganese, bauxite, mica

South western plateau region

1. Covers KK, Goa, KER and TN
2. Minerals are ferrous metals, lime stone, bauxite iron ore, manganese coal deposits monazite in Kerala iron ore in Goa

North Western Region

1. Covers RAJ, GUJ
2. Minerals are copper zinc, sandstone granite marble, gypsum fullers earth dolomite and lime stone. Petroleum in GUJ.
Himalayan belt
Minerals are copper lead, zinc, cobalt tungsten

Ferrous minerals: Iron Manganese, Chromite

1. Iron ore: largest iron ore in Asia, Haematite and Magnetite are the two types of iron ores, it has great demand in the international market
2. The total reserve is about 20 bi. Tones
955 is located in ORI JHAR, CHH KA, AP TN
Orissa: Sundergarh, Mayurbhanj Jhar mining centers; Gurumahishani, Sulaipect Badampahar Kiruburu Bonai
Jharkhand; Noamundi and Gua Located Inwest and East Singhbhum
Chh; Durg Danteware Bailadila Dalli Rajhara
Kk: Sundur, Hospet, Bababudn hills, Tumkur Chitradurg
Ms. Chandrapur, Bhandara Ratnagiri
Ap: Kurnool, Karinagar Cudapah Anantapur

Manganese: Used in steel making, Orissa is the leading producer, Bonai, Kendujhar, Suddergarh, Gangpur, Koraput Kalahandi Bolangir are important producers
KAR: Darwar, Bellary Belgaum N. Canara Chikmagalur
MS: Nagpur, Bahandara Ratnagiri
Non Ferrous Minerals

Bauxite: It is the ore of aluminum

Aluminum is used to make construction, aircraft, utensils, electrical items
Orissa: Kalahindi, Sampalpur are leading producers
Lohardhaga in Jharkhand,
Kolaba Thane Ratnagiri of MS
Bhavnagar, Jamnagar of Guj.

Copper: Used in electrical industry

Distribution: Singhbhum in Jharkhand, Balaghat of MP, Jhunjhunu Alwar of raj.
Minor producers are Hassan of Karnataka, Agnigundale of AP

Non-metallic minerals

Mica: used in electrical industry and furnace. Found in Hazaribagh of Bihar Nellore of ap.
Jaipur Bhilwara of RAJ

Energy resources

Coal, petroleum natural gas, nuclear minerals

Coal: there are three types of coal

1. Anthracite: found in Himalayan region
-

-
-
2. Bituminous: located in Gondwana field DVC, Godavari Valley Sone Valley Jharia, Raniganj, Mahanadi Valley Chanda Wardha Valley
 3. Nyvely lignites: found in TN
 4. Tertiary coal is found in Assam. ARP, MEG. NAG. J&K

Petroleum: Used to make energy resource, petrochemical industries fertilizer, synthetic rubber, wax lubricants, soap cosmetics

It is also called as liquid gold

It is found in Digboi, Naharkatia Moran in Assam, Ankaleshwar, Kalol Mehasena Nawagam In Gujarat. Mumbai High

Krishna Godavari Basin

Oil refineries

There are two types of oil refineries (i) field based (ii) market based

There are 18 oil refineries

Natural gas: Found in Guj, Raj, Tri. Krishna Godavari and Cauvery Basin

Nuclear energy resources

Uranium and thorium re important minerals

Uranium is found in Dharwad rocks

Found in Singhbhum in Bihar, Udipur Alwar, Jhunujhun of Raj. Durg of Chh. Bhandara of Ms

Monazite sands of Kerala

Atomic energy commission was established in 1948

Nuclear power stations

Tarapur of MS, Rawatbhata of RAJ, Kalpakkam of TN, Narora of UP Kaiga of KK Kakrapara of GUJ

Non-conventional resources

Advantages of non-conventional resources

1. no pollution
2. abundant
3. cheapest
4. easy to tap
5. eternal

Solar energy

Advantages

1. Abundant
 2. Huge potential used for two purposes
 3. Photovoltaic's, solar thermal technology
 4. Cist competitive,
 5. Environmental friendly
 6. Easy to construct
 7. 7% more efficient than coal
 8. 10% more efficient than coal
 9. More applications heater, crop dryer's cooker
 10. Western part has more potential
-

Wind energy

1. Pollution free
2. Inexhaustible
3. Simple machinery
4. Wind rotate turbines to produce electricity
5. Permanent wind systems are used to rotate turbines
6. India planned to establish 250 wind driven turbines with 45 mw potential
7. There are 12 suitable locations
8. India is able to produce 3000 mw, it can produce 50000 mw
9. Lamba and Kutch in GUJ are suitable places

Tidal wave energy: Energy produced with the help of tides and waves of sea west coast is more suitable

Geothermal energy

1. Hot water is used to rotate turbines
2. Ground water is heated and gushed out and can be used for generating electricity
3. Hot springs and geysers are used to generate electricity

Bio energy:

1. Energy generated from agricultural, animal waste, urban waste, it can be converted in to electrical energy
2. Develop rural areas
3. Clean the environment
4. Cheap and easily available in rural areas

Conservation of mineral resources

1. Use non-conventional resources
2. Recycling of metals
3. Reuse of energy resources
4. Use alternative resources
5. Use scrap metals
6. Export of strategic mineral to be reduced

Chapter-8 Manufacturing Industries

Classification of industries

A. On the basis of size, capital labour force

1. Large, 2. Medium 3. Small 4. Cottage

B. On the basis of ownership

1. Public 2. private 3. Joint 4. Cooperative

C. On the basis of product

1. Basic 2. Capital 3. Intermediate 4. Consumer industries

D. On the basis of raw materials

1. Agro based 2. Forest 3. Mineral 4. Industrially processed

E. NATURE OF PRODUCT

1. Metallurgical 2. Mechanical 3. Chemical 4. Textile 5. Food processing
- 6.7. electricity generation 8. Electronics 9. Communication

Location of industries

Locational factors

1. Raw materials
2. Power
3. Transport
4. Labour
5. Historical factors
6. Industrial policy

Major industries

Iron Steel Industries

Raw Materials: Iron ore, coking coal lime stone, dolomite, manganese, fire clay

Types of Iron and Steel Industries

1. Integrated steel plants
2. Mini steel plants
3. Rolling mills
4. Ancillary industries

Integrated steel plants

TISCO: 250km from Kolkata

Water- Subarnarekha Kharki rivers

Iron ore- Naomundi and Badampahar

Coal - Joda mines from Orissa

Coking coal - Jharia

IISCO:

Three factories at Hirapur, Kulti, and Burnpur

Coal- Ranigunj, Jharia Ramgarh

Ironore- Sighbhum
Water- Barkar
Transport Kolkata Asansol railway line

VISL:

Also called Mysore Iron and steel co.ltd
Iron ore- Kemangundi
Lime stone manganese- local
Charcoal used from the forest/ hydal power from jog falls
Water –Bhadravati
Produces specialised steels

ROUKELA

Collaboration with Germany
Located nearby raw materials
Coal-Jharia iron ore- Sundargarh
Power- Hirakudwater – Koel

BHILAI

Russian collaboration
Iron ore – Dalli Rajhara
Coal- Korna
Water-Tandula Dam
Power –Korba
Port – Vizak

DURGAPUR

Collaboration with UK
Coal –Raniganj
Iron –Naomundi
Power-DVC

BOKARO

Russian collaboration
Iron ore –Roukela
Water& power –DVC

The cotton textile industry

1. One of the traditional industries in India
2. India is famous for muslin, calicos chintz

Advantages available for cotton textile industries

1. Cotton cloth is most comfortable in tropical climate
 2. Large area under cotton cultivation
 3. Availability of abundant skilled labour
-

Advantages of cotton textiles in Mumbai

1. Close to cotton growing areas
2. Mumbai port facility
3. Provide capital for industries
4. Availability of cheap labour
5. Machines can be imported

Sectors of cotton textiles

Organized sector

Integrated textiles

Decentralized sectors

It includes power looms and handlooms

Organized sector production declined from 81% to 6%

Decentralized sector produces 59% power looms and 19% hand looms

Cotton is not weight loosing material

Influencing factors are

1. Power
2. Labour
3. Capital
4. Market

At Present Industries are located at the market

Swadesi Movement brought a major impetus to the industry boycotting British good after 1921

1. With the development of railway a cotton mills developed
2. In south India they are established in Coimbatore, Madurai Bangalore
3. In central India Nagpur, Indore Sholapur Vadodara
4. Cotton mills at Kanpur based on local investment
5. Cotton mills at Kolkata due to port facilities
6. Development of hydel power also help to industry
7. Lower labour costs helps to locate mills at Ujjain Bharuch Coimbatore
Tirunelveli away from cotton producing areas

Other factors are:

- Market, cheap labour, availability of power
- Major centers Ahmedabad Bhiwandi, Solapur, Kolhapur Nagpur Indore Ujjain
- They are located nearby raw material leading producing states ms. Guj, TN
- TN has largest no. of mills produce yarn rather than cloth
- Coimbatore has emerged as important center in south in KK mills are located near cotton producing areas. Davanger, Hubli, Bellary Mysore, Bangalore,
- AP: Hyd, Sec, Warngal Guntur
- UP. Kanpur is the largest, Modinagar Hathras, Saharanpur Agra, Lucknow
- WB; Hugli Howrah SeramPur Kolkata
- Cotton production increased five times from 1950 to 2000

Problems of cotton mills

1. Competition from synthetic fiber
2. High cost of production
3. Erratic power supply
4. Frequent strikes, lockouts
5. Climatic changes decrease production

Sugar industry

1. Most important industry
2. India is the largest producer of sugarcane.
3. 8% of sugar production in India
4. Khandasari, jaggary also produced in India
5. Provide 4 lakhs persons' employment
6. It is a seasonal industry
7. At present there are 506 mills with the production of 17699 lakh tones

Location of sugar industry

1. It is a weight loosing industry crop
2. The ratio is 9-12 %
3. Sucrose content decrease soon after harvesting
4. Should be harvested before 24 hours
5. Ms is the leading producer
6. 1/3 of production comes from ms
7. There are 119 mills in the state
8. They extend from Manmad to Kolhapur
9. There are 87 mills in cooperative section

Up is the second largest producer of cotton textiles

There are two belts

1. Ganga-Yamuna Doab
2. Tarai region

Other states are TN, KK, AP

Petrochemical industries: In 1960 demand for organic chemicals increased.

Petroleum refining industry expanded.

Items derived from petroleum are raw materials for other industries.

They are called petro chemical industries.

Subgroups of petrochemicals

1. Polymers
2. Synthetic fibre
3. Elastomers
4. Surfactant intermediate

Mumbai is hub of petro chemical industry

Cracker units are located at Auriya Jamnagar, Gandhi Nagar, Hajira Nagothane Ratnagiri

Haldia Vizak Organizations working under petrochemicals

Indian petrochemical corporation limited

1. It is public sector
2. Produce polymers, chemicals fiber, fiber intermediates

Petrofils cooperative limited:

1. It is the joint venture of govt. And weaver's cooperative society
2. Produces polyesters nylon chips

Located at Vadodara Naldhariin Gujarat

Central institute of plastic engineering and technology

1. Provide training for engineers
- Polymers are made from ethylene & propylene
Polymers are used in plastic industry
Plastic is converted into sheets power resin and pellets and then used in plastic industry

Advantages:

1. Strength
2. Flexible
2. Water and chemical resistance
3. Low price

National organic chemicals industries limited: Established in private sector in 1961

First naphtha based chemical industry at Mumbai.

Center of plastic materials Mumbai, Mettur, Pimpri Rishra.

They are mostly small scale sector.

Uses recycled plastics.

Uses of plastic:

1. To make fabrics

Uses:

1. Strength 2. Durability 3. Wash ability 4. Resistant to water 5. Shrinking 6. Easy to maintain

Centers of nylon and polyester: Kota, Pimpri, Mumbai, Modinagar, Pune

Acrylic staple fiber manufactured at Kota Vadodara

The main problem of plastic is it is non-biodegradable

Knowledge based industry

1. Brought revolution in the industry
 2. Brought new economic and social environment
 3. Out sourcing is an example
 4. Fastest growing industry
 5. Software export is expanding every day
 6. It surpassed other industries
 7. It accounts 2% of GDP
 8. Produce quality products
 9. MNCs are producing software production
-

LPG

1. It is new industrial policy

Objective:

1. To build on the gains already made
2. Correct the distortions
3. Maintain sustained growth
4. Gainful employment
5. Attain international competitiveness

Measures initiated:

1. Abolishing industrial licensing
2. Free entry of foreign technology
3. Foreign investment policy
4. Access to capital market
5. Open trade
6. Abolition of phased manufacturing
7. Liberalized industrial location programme

Dimensions of new industrial policy

1. Industrial licensing has been cancelled expect 1. Security 2. Strategic. 3. Environmental concerns
2. Public sectors reduced from 17 to 3
3. Atomic energy & railways kept under government
4. Govt. offered shareholdings to financial institutions, public workers
5. No private permission is required to invest in de-licensing sector
6. FDI is the supplement of domestic investment
7. FDI provide technological innovation
8. Access to global managerial skills optimum use of nature man resources
9. Liberalized to attract MNS and private sector
10. Mining and communications high way construction thrown to private
11. Globalization means integrating national economy with world economy
12. Goods, services capital labour resources can move freely from one nation to another

Steps

1. Opening of economy to FDI by providing facilities to foreign companies to invest in different fields of economic activity
2. Removing restrictions an obstacle to the entry of multinational company in India
3. Allowing Indian companies to collaborative other countries
4. Carry out massive import
5. Opting exchange rate adjustments to export

Problems in new industrial policy

1. Major share went to core industries
 2. Infract rue was untouched
 3. Gap between developed and developing increased
-

-
4. Major share went to developed states
 5. 23%ms 17% guj7% AP 6% TN&UP 8%
N.E states only 1%

Industrial regions

Criteria for identifying industrial regions

- 1.number of industrial units
2. Number of industrial workers
3. Quantity of power used
- 4.output
- 5.value added by manufacturing

Mumbai Pune region

1. Extended from Mumbai to Sholapur
2. Connect Kolaba Ahmednagar, Satara Sangle Jalgaon

Favourable factors

1. Cotton hinterland
2. Moistclimate
3. Opening of Suez Canal
4. Mumbai port facility
5. Hydrel power from western Ghats
6. Opening of Mumbai high
7. Nuclear power plant at Tarapur
8. Industries: Engineering goods, oil refineries, petrochemicals, leather goods, synthetic, plastic, drugs, fertilizers

Hugli Industrial region

Advantages:

1. Extend from Bansberia to Birlanagar
2. Opening of Hugli port
3. Well connected with railways
4. Development of tea plantation, jute cultivation
5. Presence of coal fields, iron mines DVC
6. Cheap labour from up & Bihar
7. Industries: jute, paper, textiles, electrical, fertilizers Hindustan motors, diesel locomotives at Chttaranjan. Oil refinery at Haldia

Bangalore – Chennai region

1. Extend from Bangalore to Madurai
2. Power from Pykara Hydrel power
3. Industries: cotton textile, eng. goods, HAL, HMT, at Bangalore, rubber industry, petroleum oil refinery at Mumbai

Gujarat industrial region

1. Extend from Ahmedabad to Surat
2. Large cotton growing area
3. Nearness to market
4. Oil fields at Ankaleswar Vadodar Jamnagar
5. Kandla port facility
6. Koyali oil refinery
7. Kakrapara nuclear plant

Chotanagapur industrial region

1. Extend from Jharkhand to Orissa
2. Heavy metallurgical industries
3. Coal at DVC
4. Iron ore, limestone coal fields
5. Steel plants at Jamshed Pur , Burnpur Kulti Durgapur ,Bokaro, Rourkela
6. Hydrel. Thermal power from DVC
7. Labor from Bihar, Bengal
8. Industries: engineering, machine tools, fertilizers, cement paper locomotives
9. Places are Ranchi, Dhanbad, Sindri, Hazaribagh Jamshedpur

Vizak guntur industrial region

1. extend from Vizak to Kurnool
2. Port facility from Vizak, Machilipatnam
3. Dev. Agriculture, hinterland mineral
4. Godavari coal fields, shipbuilding at Vizak. Petroleum oil refinery. Lead zinc steel industry at Vizak

Gurgaon-Delhi Meerut region

1. Fast growth,
2. Away from minerals
3. Light industries
4. Electrical, woolen textiles, hosiery goods, sugar mills, cycle agriculture implements
Software, glass leather goods

KOLLAM -Thiruvanantha Puram

1. Extend from Trivandrum to Alappuzha
2. Plantation agriculture,
3. Hydrel power
4. No minerals
5. Ag. Product processing
6. Cotton textiles, sugar, rubber, match box glass fish based industries food processing
7. Oil refinery at Cochin

Chapter-9

Planning and Sustainable Development in India

Planning is the process of thinking formulation of a scheme of programme and implementation of a set of actions to achieve some goal

There are two approaches

1. Sectorial planning
2. Regional planning
3. India started five year plans and annual plans

Target area planning

1. This plan take care of economically back ward areas, based on resources.
2. Govt. introduced the following programmes under

Target area planning

1. Command area dev. programmed
2. Drought prone area dev. pro
3. Desert. Dev. pro.
4. Hill area Dev. pro
5. The small farmers dev. agency 6. marginal farmers dev. agency

Hill area development programme

1. Started during 5th plan
2. covered 15 district of UTTAN, WB & TN
3. National committee on the development of backward area in 1981 recommended this programme
4. Selected the area above 600 mts.
5. Covered tribal regions
6. Objectives are: horticulture, plantation, animal husbandry, poultry forestry small scale and village industries

Drought prone area development programme

1. Started during 4th plan
2. Objectives: employment, creating productive assets, starting labor intensive works, irrigation projects, land development. Programme. Afforestation, grassland dev. Electricity, road, market, credit facility.
3. Integrated water shed dev. Pro
4. restoration of ecological balance between water, soil, plants and animals
5. Covered 67 districts

Case study tribal Dev. Pro

1. Bhaurmur Tribal region located in chambray district. of HP
2. Inhabited by Gaddi tribes
3. They practice transhumance
4. Total area is 1818 sq.km 1500 to 3700 mts altitude
5. Ravi and its tributaries drain this region

-
6. There are 4 physiographic regions 1. Holi 2. Khani 3. Kugti 4. Tundah
 7. Harsh climate, low resource base, fragile environment
 8. 20/sq km density
 9. Mosteconomically backward
 10. Socio economic deprivation
 11. Objectives: transport and communication Agriculture. Allied activities. Socio eco. Services, education, health, potable water, electricity
 12. **Effects of ITDP:**
 1. Increase literacy rate
 2. Sex ratio
 3. Female literacy
 4. Reduce gender inequality
 5. Shift to cash crops

Sustainable Development: Development that needs of present without compromising the ability of future generations to meet their own needs. it takes care of ecological, social economic, aspects of present and pleads for conservation of resource for future

Case Study

Indira Gandhi Canal Command Area – Rajasthan canal

1. One of the largest canal system in India
2. Started in 1948 launched on 31/3/1958
3. Started from Harike barrage in Punjab run parallel to the Pakistan border
4. The total length is 9060 km 19.63 lakh hectare irrigation 70% flow 30% lift system
5. Started in two stages
6. Cover Ganganagar, Hanuman Garh, Bikanir, Jaisalme, Barmer, Jodhpur, Nagaur, Churu Districts
7. Left side lift system and right side flow system
8. Stage one -1960 and stage ii 1980
9. Objectives achieved: irrigation, pasture development, afforestation reduces wind erosion, reduce siltation. Development of per-capita income, increase in food production, increase cultivated area, change in cropping system
10. Problems: siltation, water logging

Steps take to solve the problems:

1. Strict implementation of water management policy
 2. Protective irrigation
 3. Extensive irrigation of crops and pasturelands
 4. No water intensive crops
 5. Lining of water courses
 6. Leveling of warabandhi
 7. Reclamation of water logging areas
 8. Afforestation, shelterbelts,
 9. Adequate financial support
-

Chapter-10 Transport and Communication

Classification of Transport and Communication

Land

1. Road
2. Railway
3. Pipe lines

Water

1. Inland
2. Oceanic

Air

1. Domestic
2. International

Land transport

Road transport

1. Total road length is 33.1 lakh km
2. 80% passengers, and 70% of freight are carried by roads
3. Shai road connect Indus valley to Sone valley
4. It is renamed as grad trunk road
5. At present it connects Amritsar, Kolkata (NH1 NH2)

Classification of Roads

I. National high ways

1. Constructed and maintained by central govt.
2. Meant for interstate transport
3. Movement of defense men and material
4. Connect state capitals
5. Total length is 65769 km
6. Accounts 2% of road length
7. Carry 40% of traffic
8. Golden quadrilateral 5846 km, 4/6/lane. High density traffic, connect metro cities, time distance and cost distance decreased n-s corridor connect Srinagar to KanyaKumari (4076 km) east west corridor connect Porbandar to Silchar (3640)

State High Ways

1. Constructed and maintained by state CPWD
2. Connect state capitals with Dist. Hqs.
3. Account for 4% of road length

District Roads:

1. Connect Dist. Hq with other towns
-

-
-
2. Account for 14% of road length

Rural Roads

1. Connect rural areas
2. Accounts 80% of road length
3. Regional variation in road density
4. Influenced by terrain and climate

Other Roads

Border Roads and International Highways

1. Bro was started in 1960
2. Help to develop economy
3. Strengthen the defense
4. Improvement of strategic points
5. It is a premier multifaceted construction agency
6. Highest road way connects Manali –Leh with 4270 mts. altitude
7. Maintain harmonious relation with neighboring countries

Highest road density is 387.24 /100sq.km in Kerala lowest road density is 10.48 /100 sq. km in J&K it is high in northern plains and low in mountain areas

Factors influence in road ways

1. Terrain
2. Climate
3. Economic development
4. Industries
5. Cities and towns

Railways:

1. The first railway line started in 1853 between Bombay and Thane
 2. It is the largest govt. Sector with the length of 63221 km
 3. It is divided into 16 zones
 1. Northern – New Delhi
 2. North Eastern – Gorakhpur
 3. NE frontier – Maligaon
 4. N. Western- Jaipur
 5. N. Central- Allahabad
 6. Western Church Gate Mumbai
 7. W. Central – Jabalpur
 8. Central CST Mumbai
 9. E. Central – Hajipur
 10. Eastern-Kol
 11. S. Western – Hubli
 12. S. Central- Secunderabad
 13. SE Central-Bilaspur
 14. Seastern-Kolkata
 15. Southern Chennai
 16. East Coast- BBSR
-

-
-
2. Highest coal is carried by railways
 3. Railway Gauges: broad gauge: 1.676 mts. 46807 km 74.145-meter gauge: 1.000 mts. 13290 km 21.02% narrow gauge 0.672mts and 0.610 mts. 4.94% 3124 km

Recent Developments in Railways:

1. Conversion of meter and narrow gauges in to broad gauge
2. Steam engines are replaced by diesel and electrical engines
3. Introduction of metro railways
4. Use of CNG
5. Introduction of internet
6. Computer reservation
7. Container services

Water Transport

Advantages

1. Cheapest means of transport
2. Least consumption of energy
3. Suitable for heavy bulky goods
4. No friction
5. Eco friendly
6. There are two types

Inland Water Ways

1. Cheapest mode of transport
2. Competition from road ways and railways
3. Water diversion from the rivers cause less navigable
4. Total 14500 km of navigable water
5. Account 1% of transport
6. It consists of rivers, canals, backwaters creeks
7. 3700 km of navigable rivers are available
8. 2000 km actually used
9. Canals are controlled by inland water way authority
10. There are three inland waterways in India

1. NW Allahabad to Haldia – 1620 km most important waterway, up to Patna mechanized boats and up to Hardwar manual boats
It is divided in to three segments: 1. Haldia to Farakka 560 km 2. Farakka to Patna 460 km 3. Patna to Allahabad 600 km

2. NW-2 Sadiya to Dibrugarh 891 km steamers can travel up to Dibrugarh

3. NW -3 Kottapuram to Kollam 205 km includes 168 km west coast canal and Udyoga mandal canal

Back waters of Kerala also important waterways.

Ocean Route: India has coastline about 7517 km there are 12 major ports and 185 minor ports

95 % of India foreign trade and 70 % of value is trade takes place through sea ways

Air Transport

Advantages

1. Fastest means of transport
2. Connect remote areas
3. no need to maintain routes and construct
4. Suitable for emergency times
5. All continents are connected by air ways
6. Suitable for difficult terrain
7. Reduce travel time
8. Maintained by airport authority
9. It maintains 126 minor airports 11 international air ports and 86 domestic airports
10. 29 civil defense enclaves in defense service also maintained by the authority

There are three divisions

1. Air India: provide international air services
2. Connects all continents
3. Delhi and Mumbai air ports accounts for 52% of air service

Indian airlines connect Indian subcontinent

It is the part of air India

Pawan Hans helicopter services

serves in north eastern states

Pipelines:

Advantages:

1. Most convenient and efficient mode of transporting liquids and gases over long distance
2. Least consumption of energy
3. Suitable for mountain areas and sea bottom
4. Asia's cross country pipe line is constructed between Naharkatia oil field and Barauni oil refinery with the length of 1157 km, it was extended up to Kanpur in 1966
5. Other pipe lines are Ankaleswar to Koyali, Mumbai High to Koyali, Hazira Vijaipur Jagdishpur
6. Salaiya to Mathura - 1256 km
7. Numaligarh to Siliguri 660km

Communication: It is divided into personal- mobile mass radio, TV.

Personal communication has become most important at present.

User can contact with the customer directly. Fastest means of communication.

Communication revolution came into world through internet.

Mass communication consists of radio, tv and satellite communication.

Satellite communication is the recent development most useful at the time of emergency.

When all other communications are failed it is the only communication which can be used.

Chapter-11 International Trade

Changes in International Trade

1. There is a change in volume that is increased but the value of import is more than export
2. Increase in trade deficit
3. It is due to rise of petroleum price

Changes in Composition

1. The share of agriculture and allied products has declined
2. The share of petroleum has increased
3. The share of ore-minerals and manufactured goods have largely remained constant
4. Increasing in India's refining capacity also responsible for importing petroleum
5. Declining in traditional goods is due to tough international competition
6. There is a great decline in coffee, spices, pulses, tea
7. Increase in Floriculture products, marine products, sugar and fresh fruits
8. Manufacturing alone accounted for 75.96%
9. Engineering goods have show growth in export
10. China and East Asian countries are our competitors
11. Gems and Jewellery contributed a large share in foreign trade

Changing Pattern of India's Import

1. Earlier our import was food grains, capital goods, machinery
2. After 1970 import of food grains discontinued
3. Fertilizers and petroleum took major part
4. Machine, edible oil and chemicals also present
5. Capital goods has steadily increasing
6. Food products reduced
7. Pearls and precious stones gold and silver take major part

Direction of Trade

Export: 47.41% = Asia and Oceania

23.80% West Europe

20.42% America

Import: 35.40% Asia Oceania

22.60% West Europe

8.36% America

The USA is the largest trading partner of India

India's export is UK, Belgium, Germany, Japan, Switzerland Hong Kong the UAE, China Singapore.

Sea ports are called international gate ways of International Trade

1. India is covered by three side with water

-
-
2. Longest coast line (7516.5 km)
 3. Water is the cheapest transport
 4. West coast has more sea ports than east coast
 5. Most of the international trade takes place through sea routes
 6. Major ports are controlled by central govt. Minor ports are under different state governments
 7. There are 12 major and 185 minor ports
 8. Most of the ports are equipped with modern facilities

Indian Sea Ports:

1. **Kandla:** located at gulf of Kutch, Developed to decrease pressure on Mumbai port. Special facilities are available for petroleum. The offshore Vadinar is developed to reduce pressure on this port
2. **Mumbai:** Natural harbor, biggest port, suitable to import goods from Middle East countries, 20km long and 10 km width country's largest oil terminal

Jawaharlal Nehru Port:

- Located at Nhava Seva,
- Largest after completion,
- Developed to decrease burden on Mumbai port

Marmagoa Port:

- Located at the estuary of Zuari river
- Natural harbor
- Iron ore is exported to Japan
- Konkan railway brought large hinter land

New Mangalore Port

- Located in Karnataka coast
- Specialized to export of iron ore
- Also exports fertilizers , tea , wood pulp yarn

Kochin

- Located at the Vembanad kayal
- Queen of Arabian sea
- Natural harbor
- Close to Suez canal

Kolkata

- Located on the Hugli river bank
 - Located 128 km away from sea coast
 - Developed by British
 - Paradip and Haldia decreased the pressure
 - Silt accumulation is the problem
-
-

-
- Large hinter land
 - Extend port facilities to other countries

Haldia Port

- Located 105 down stream of Hugli
- Developed to burden on Kolkata
- Handles iron ore , cargo fertilizers, jute products

Paradip Port

- Located on Mahanadi delta
- 100 km from Cuttack
- Deepest harbor
- Handle large vessels
- Developed to iron ore

Vishakapatnam Port

- Land locked harbor
- Connected to the sea through channel
- An outer harbor is developed to help this port
- It handles iron ore, petroleum cargo

Chennai

- Oldest port developed by British
- Artificial harbor
- Not suitable for large ships

Ennore

- Newly developed port in Tamil Nadu
- Located 25 km north of Chennai
- Developed to decrease burden on Chennai port

Tuticorin Port

- Newly developed port in Chennai
- It handles variety of cargo: coal, salt, edible oils, petroleum & food grains
- Developed to decrease pressure on Chennai port

Air Ports

1. Fastest
2. Connect remote areas
3. Suitable for long distance
4. Help at the time of disasters

Chapter-12

Geographical Perspective on selected

Pollution

It is the unwanted matter and energy in the environment which harms to the man

Types of pollution:

1. Air pollution
2. Water pollution
3. Land pollution
4. Noise pollution

Pollution	Causes	Pollutants	Effects	Solution
Air Pollution	Combustion of coal diesel, industrial processes solid waste disposal sewage disposal	Oxides of sulphur, nitrogen, carbon monoxide, ammonia, lead, aldehydes asbestos &beryllium	Causes various diseases, respiratory , nervous and circulatory systems cause smog in cities, acid rain, in return cause damage to the buildings	Plantation, use of filters in industries, use of nonconventional energy resources use of public transport
Water Pollution	Sewage disposal, urban runoff, toxic effluents, runoff from Ag. lands	Odor, suspended solids, ammonia, urea, chloride, grease, insecticide, heavy metals	Water borne diseases diarrrhea, intestinal worms, hepatitis, ¼ diseases are caused by water pollution	Controlled use of fertilizers, pesticides, treat the waste before release to the streams from industries
Land Pollution	Improper human activities disposal of untreated waste	Human and animal excreta , virus and bacteria garbage, vectors therein, radio active subsistence	Exhaustion of land land pollution, heavy metals are transferred to the Ag. Products Cause water pollution	Educate the farmers about the importance of land utility and consequences of pollution
Noise Pollution	Air crafts, automobiles trains, industrial processing advertising	High level of noise	cause neural and heart disease	Locate industries away from living areas

Sources of Pollution in the Ganga and Yamuna

Rivers

River and State	Polluted Stretches	Nature of Pollution	Pollutants
Ganga- UP, BI, WB	1. Downstream of Kanpur	1. Industries in Kanpur	Kanpur, Allahabad,
Yamuna – Delhi, UP	2. Downstream of Varanasi 3. Farrakka barrage	2. Domestic and urban 3. waste Carcasses of man	Varanasi, Patna , Kolkata
	1. Delhi to confluence with Chambal 2. Mathura and Agra	Diverse of water to HR,UP Ag. Runoff, industrial waste	Urban waste from Delhi

Case Study- Dharvi the Asia's Largest Slum

Features

- There is only one road about 90 feet
- Narrow streets, one toilet for every 1440 people
- Two/three stored buildings with rusty iron gates
- Single room for 12 people
- Tree less sunlight uncollected garbage
- Stagnant pools, fowl water,
- Zari work ,pottery, wood carving , scheduled caste people
- Poor Muslims, treatment of hides and tanning

Urban Waste Disposal

Overcrowding , congestion, inadequate facilities, poor sanitary conditions, significant quantity of solid waste Pieces of metals, polythene bags , broken glass ware plastic containers ashes garbage and CDs make solid waste

Sources of Urban Waste

1. House hold establishments: thrown in public lands, private contractors sites
2. Industrial establishments: thrown in low lying public grounds

Effects of Solid Waste

1. Health hazard due to obnoxious smell, flies and rodents
2. Disease like typhoid, diphtheria diarrhea malaria cholera
3. They are spitted through rain water
4. Industrial waste dumping in the rivers cause water pollution ex. Ganga , Yamuna

Case Study – Daurala

1. Meerut based NGO developed a model for ecological restoration
2. The ground water was contaminated with industrial waste

Steps Taken

1. Overhead tank capacity was increased
2. Ponds were cleaned
3. Silt was removed
4. Rain water harvesting structures were made
5. 1000 trees have been planted

Rural -Urban Migration

Reasons

1. Demand for labour in urban areas
2. Low job opportunities in rural areas
3. Un-development of rural areas
4. People migrate to bigger cities

Problems of Slum Areas

1. Least choice
2. Dilapidated houses
3. Poor hygienic conditions
4. Poor ventilation
5. Lack of drinking water, light, toilet facilities
6. Overcrowded , narrow streets, low paid workers
7. Prone to diseases, alcoholism, vandalism, apathy, social exclusion

Land Degradation

Causes

1. Pressure on agriculture
2. Increase in population density
3. Faulty methods of agriculture
4. Excessive use of fertilizers, pesticides
5. Indiscriminate cutting of trees
6. Heavy rains
7. Floods

Classification of Waste Land by NRSA using remote sensing

Techniques

1. Caused by Natural Agents
Gullies, ravenous land, deserted , coastal sands, barren rocky areas, steep sloping land, glacial areas
2. Caused by Natural as well as Human Factors
Waterlogged and marshy areas, land affected by salinity and alkalinity, land with or without scrub
3. Caused by Human Actions

Degraded shifting cultivated areas, degraded land under plantation crops, degraded forests, degraded pastures, mining and industrial waste lands

Case Study- Ecological Balance

Reasons

1. Westernmost climatic zone in MP.
2. One of the five backward districts of the country
3. High concentration of Bhills
4. suffer from poverty
5. Most degraded land

Objectives

1. Start watershed development programme
2. Link of water, land, vegetation
3. Natural resource management
4. Increase common property resources
5. Each family should plant one tree at least
6. Planted fodder grass
7. Social fencing
8. Stop open grazing land
9. Stopping the common property resources by govt.

Classification of Wasteland by Process

1. Barren and uncultivated wasteland 2.18%
2. Natural degraded common waste land 2.4%
3. Natural man made common waste land 7.51%
4. Man made degraded common waste land 5.88%
5. Total degraded land 15.8%

Questions : India People and Economy-XII

1. Population - Distribution, Density, Growth and Composition

1. Describe population composition.
2. Examine the religious composition of India.
3. Examine the age groups. of young, adult and old population.
4. How is the population of India divided?
5. Why was the National Youth Policy designed ?
6. What is meant by growth of population?
7. Which is the largest linguistic group in India?
8. When was National Youth Policy launched by the government of India?
9. Discuss socio-economic and historical factors of distribution of population.
10. Name two sub-family of Sino-Tibetan.
11. Differentiate between natural growth and population growth.
12. Differentiate between main and marginal workers.
13. 'The agricultural sector has the largest share of Indian workers'. Explain.

2. Migration - Types, Causes and Consequences

1. Differentiate between life-time migrant and migrant by last residence.
2. Who predominate the rural to urban stream of inter-state migration and why?
3. What is the main reason of male migration from rural to urban?
4. Which state in India receives maximum number of migrants?
5. Which state in India marriage is not the cause of female migration in rural areas?
6. Describe the significance of remittance in India.
7. State the positive and negative consequences of migration.
8. Why do people migrate from rural to urban areas in India?
9. What is internal migration? Discuss the four streams of internal migration in India.
10. Distinguish between Pull and Push factors of migration.
11. Explain economic and social consequences of migration in India.

3 & 4. Human Development/Settlement

1. Define Human Development.
2. Discuss the Human Development Report 1993 of UNDP.
3. Why development is a complex concept in social sciences?
4. Which two states of India have less than five percent of the population below poverty line.
5. State some of the important measures of a healthy and reasonably long life.
6. Describe the features of literacy in India.
7. Examine the Mahatama Gandhi's notion of development.
8. Differentiate between human development and economic development.
9. Who prepared Human Development Report for India? How is it prepared in India?
10. Describe the spatial pattern of female literacy in India.

5. Land Resources and Agriculture

1. Differentiate between crop rotation, crop intensity and mixed cropping.
2. Define common property resources (CRP) with examples.
3. Examine the different cropping seasons existed in India.
4. State the two processes that induce land degradation in India.
5. Describe Tea as a plantation crop in India.
6. How are food grains classified?
7. Distinguish between Kharif and rabi Crops.
8. Differentiate between Foodgrains and food crops.
9. What are the different types of environmental problems of land resources in India?
10. How do you measure total cultivable land?

6. Water Resources

1. Describe the key features of India's National Water Policy, 2002.
2. Why has the ground water pollution occurred ?
3. State any two important remedies for solving water problem in India
4. State the salience of rain water harvesting.
5. Why is conservation and management of water resources essential in India? State any three reasons.

7. Mineral and Energy Resources

1. Define 'Bio-energy'. State the of significance of Bio-energy.
2. What is geothermal energy? Describe.
3. Differentiate between Thermal and hydro electricity.
4. Distinguish between Gondawana and tertiary coals.
5. Mention the important minerals used for the generation of nuclear energy and its distribution.
6. Distinguish between conventional and non-conventional sources of energy.
7. Suggest ways for the conservation of Mineral Resources.
8. What are non-conventional sources of energy?

8. Manufacturing Industries

1. State any three factors responsible for the development of iron and steel industry in Eastern India.
2. Name the industries classified on the basis of entrepreneurship.
3. The importance of locating industries near the source of electricity generation is declining. Mention three important reasons for it.
4. Which is the largest sugar producing state of India?
5. What are petro-chemicals?
6. Differentiate between small and large scale industries with examples.

7. How is industrial clustering identified?
8. What does globalisation imply in Indian Context?
9. Distinguish between cottage industry and small scale industry with an example.
10. Which city is the hub of petro chemical industries?
11. Distinguish between Natural Fibre and Synthetic Fibre.
12. Why is the sugar industry shifting towards southern India? Mention the reasons.
13. How did the Swadeshi movement give a major impetus to the cotton textiles industry?
14. What do you understand by liberalization, privatization and globalization? How have they helped industrial development in India?

9. Planning and Sustainable Development in Indian Context

1. What was the main objective to implement the fourth five year plan for the people in drought prone areas?
2. Which significant program was initiated in the fourth five-year plan?
3. State the two main objectives of the 'Drought Prone Area Programme' .
4. Describe the necessity of planning for the development of a country.
5. How has the introduction of Indira Gandhi Canal irrigation in the dry lands of Rajasthan influenced the environmental conditions of the region positively? Describe.
6. Mention the reasons for deferring the fourth five-year plan.
7. State any five objectives of the tenth five-year plan.
8. Mention any five provisions of the Integrated Tribal Development Project implemented in Bharmaur region.
9. Distinguish between development and sustainable development.
10. Differentiate between Economic Region and Planning Region.
11. State the social benefits of ITDP (Integrated Tribal Development Programme)
12. Define the concept of sustainable development.

10. Transport And Communication

1. Which remote sensing agency is located at Hyderabad and what is its role?
2. Mention the stretch of National Waterways No. 1 of India.
3. What is the most important feature of the pipeline constructed from Naharkatia oil fields to Barauni ?
4. Why is transport is the vital sector of Indian economy? Discuss.
5. Differentiate between Indian National Satellite system and Indian Remote Sensing Satellite system.
6. Distinguish between National Highways and State Highways of India with an example.
7. Describe the role of roads in the economic development of India.
8. Describe any three advantages of satellite communication in India.

11. International Trade

1. Mention the characteristics of the India's foreign trade.
2. Which country is the largest trading partner of India?
3. Name the major seaport of India developed after independence.
4. Which port has been constructed to reduce congestion of Kolkata port?
5. Which satellite port has been developed to relieve the pressure of the Mumbai port?
6. Differentiate between exports and imports.
7. Distinguish between foreign and domestic trade.
8. Which state of India on the eastern coast has two major Sea ports ? Name them and state any two characteristics of each.
9. State the major sea-ports located at west coasts.
10. Name the biggest port of the country.

12. Geographical Perspective on Selected Issues and Problems

1. Which type of pollution causes various disease related to respiratory system .
 2. Write any two main sources of air pollution in India.
 3. Which is the most significant contributor of water pollution in India?
 4. Which city is the main polluter of river Yamuna?
 5. Which is the main source of water born disease in India? Name any one water born disease.
 6. How an increased use of chemical fertilizers, pesticides and insecticides degrade the soil ? Discuss.
 7. Suggest measures for reduction of land degradation.
 8. Explain any three major problems of urban waste disposal in India.
 9. Name any two natural sources of water pollutants.
-