

14 Planning and Sustainable Development in Indian Context

Fastrack Revision

► Planning and Sustainable Development in India

- Resource planning is an important process for judicious use of resources. This is even more important in a country with diversified resources like India. There is an urgent need for resource planning at national, regional and local levels in our country. The technique adopted for appropriate use of resources is called resource planning.
- Resource planning at the national, state and local level is a complex task, which has the following steps:
 - Identifying and tabulating resources in different regions of the country, making regional survey maps qualitative and quantitative estimation of resources and they have to be measured.
 - To prepare appropriate technology, skills and institutional planning framework for implementing resource development plans.
 - To coordinate resource development plans and national development plans.

► Target Area Planning

- Planning commission introduced the 'target area' and target group approaches to planning. Some of the examples of programmes directed towards the development of target areas are Command Area Development Programme, Drought Prone Area Development Programme, Hill Area Development Programme. The Small Farmers Development Agency and Marginal Farmers Development Agency.
- In the 8th Five Year Plan special area programmes were designed to develop infrastructure in hill areas, north-eastern states, tribal areas and backward areas.

► Hill Area Development Programme

- Hill Area Development Programmes were initiated during the 5th Five Year Plan covering 15 districts comprising all the hilly districts of Uttar Pradesh. (present Uttarakhand). Mikir Hill and North Cachar Hills of Assam. Darjeeling district of West Bengal and Nilgiri district of Tamil Nadu.
- The National Committee on the Development of Backward Area in 1981 recommended that all the hill areas in the country having height above 600m and not covered under tribal sub-plan be treated as backward hill areas.

► Drought Prone Area Programme

- This programme was initiated during the 4th Five Year Plan with the objectives of providing employment to the people in drought-prone areas and creating productive assets.

- The National Committee on Development of Backward Areas reviewed the performance of this programme.
- Since growing population pressure is forcing the society to utilise the marginal lands for agriculture, and thereby causing ecological degradation, there is need to create alternative employment opportunities in the drought prone areas.
- The Planning Commission of India (1967) identified 67 districts (entire or partly) of the country prone to drought. The Irrigation Commission (1972) introduced the criterion of 30% irrigated area and demarcated the drought-prone areas.

► NITI Aayog

- India has adopted the concept of centralised planning after its independence. This planning was done by the Planning Commission until 1st January, 2015.
- On 1st January the Central Government established the new body known as the NITI Aayog or National Institution for Transforming India.
- The idea behind the establishment of this body is to ensure inclusive growth for all the sections of society and create a platform for a cooperative federalism.

► Case Study on Target Group Area Planning, Bharmaur Region

- **Physical Setting of Bharmaur Region:** This region lies between 32°11' N and 32°41' N latitudes and 76°22' E and 76°53' E longitudes. Spread over an area of about 1818 sq. km, the region mostly lies between 1500 m to 3700 m above the mean sea level.
- This region is popularly known as the **homeland of Gaddis** (a tribal community) and is surrounded by lofty mountains on all sides. It has Pir Panjal in the North and Dhauladhar in the South. In the East, the extension of Dhauladhar converges with Pir Panjal near Rohtang pass.
- The river Ravi and its tributaries, the Budhil and the Tundahen, drain this territory and carve out deep gorges.
- These rivers divide the region into four physiographic divisions called Holi, Khani, Kugti and Tundah areas. Bharmaur experiences freezing weather conditions and snowfall in winter. Monthly temperature in January remains 4°C and in July, it is 26°C.
- The Bharmaur tribal area comprises of Bharmaur and Holi Tehsils of Chamba district of Himachal Pradesh.



- ▶ It is a notified tribal area since 21st November, 1975. It is inhabited by Gaddi, a tribal community that have maintained a unique and distinct identity in the Himalayan region because they practiced transhumance and communicated through Gaddiali dialect.
- ▶ **Underdeveloped Economy of Bharmaur**
 - ▶ Harsh climate, low resource base and fragile environment influence the economy and society of the region. It is one of the most economically and socially backward areas of Himachal Pradesh.
 - ▶ The *Gaddis* have experienced geographical and political isolation and socio-economic deprivation. The economy is largely based on agriculture and allied activities such as sheep and goat rearing. According to 2011 census, the total population of Bharmaur sub-division was 39,113 that is 21 persons per sq km.
- ▶ **Integrated Tribal Development Project (ITDP) in Bharmaur**
 - ▶ In 1970s, *Gaddis* were included in the list of scheduled tribes and in the same period, the development process of tribal area of this region started.
 - ▶ Later in 1974, under the Fifth Five Year Plan, the tribal sub-plan was introduced and Bharmaur was designated as one of the five **Integrated Tribal Development Projects (ITDP)** in Himachal Pradesh.
- ▶ **Achievements of ITDP**
The main achievements of the ITDP were:
 - ▶ Development of infrastructure *i.e.*, schools, healthcare facilities, potable water, roads, communications and electricity supply.
 - ▶ Villages located along the river Ravi in Holl and Khani areas were main beneficiaries of infrastructural development.
 - ▶ There has been tremendous increase in literacy rate, *e.g.*, the female literacy rate in the region has increased from 1.88% in 1971 to 65% in 2011.
 - ▶ Decline in gender inequality *i.e.*, difference between male and female literacy rate has declined.
 - ▶ There has been improvement in the sex-ratio and child marriages declined.
 - ▶ Traditionally, the *Gaddis* have been subsistence agriculturists and pastoralists, mainly focussed on foodgrains and livestock population. But during the last three decades of the twentieth century, production of cash crops and pulses have increased.
 - ▶ The importance of pastoralism in the economy has declined as now only about one-tenth of the total households practise transhumance.
- ▶ **Evolution of the Concept of Sustainable Development**
 - ▶ **Concept of Sustainable Development** : The concept of sustainable development evolved due to general rise in the awareness of environmental issues in the late 1960s in the Western world. It reflected the concerns of people about the undesirable effects of industrial development on environment.
 - ▶ Publication of **The Population Bomb** by Paul R. Ehrlich in 1968 and **The Limits to Growth** by Dennis Meadows and others in 1972 raised the level of fear among the

environmentalists and the people. This set the stage for the emergence of new models of development under the broad term 'sustainable development'.

▶ **Indira Gandhi Canal Command Area**

- ▶ **Case Study on Sustainable Development:** This project, conceived by Kunwar Sain in 1948, was launched on 31st March, 1958. The canal originates at Harike Barrage in Punjab and runs parallel to Pakistan Border for a distance of 40 km in Thar desert (Marusthal) of Rajasthan.
- ▶ The total planned length of the system is 9060 km, fulfilling the irrigation needs of a total culturable command area of 19.63 lakh hectares. The canal works on two types of irrigation systems, **flow irrigation system** and **lift irrigation system**. In the lift, canal water is lifted up to make it flow against the slope of the land.
- ▶ All the lift canals of this system originate at the left bank of main canal while all the canals on the right bank of main canal are flow channels. Out of the total command area, 70% was targeted to be irrigated by flow system and the rest by lift system. The construction of this canal has been carried out in two stages.
- ▶ **Stage I:** In first stage, it covered the command areas of Ganganagar, Hanumangarh and Northern part of Bikaner districts.
Its culturable command area is 5.53 lakh hectares, having gentle undulating topography. In this stage, the irrigation system was introduced in early 1960s.
- ▶ **Stage II:** This stage covered 14.10 lakh hectares culturable command area of Bikaner, Jaisalmer, Barmer, Jodhpur, Nagpur and Churu districts.
The main characteristics of the cultural command area of stage II are:
 - Hot desert with shifting sand dunes.
 - Summer temperature upto 50°C.
 - Irrigation system was introduced in this stage in mid-1980s.

▶ **Positive and Negative Effects**

The introduction of canal irrigation in this dryland has changed its ecology, economy and society. The environment of the region has been influenced by this project both positively and negatively.

- ▶ **Positive Effect:** Due to the canal irrigation, there is sufficient soil moisture available for a longer duration and various afforestation and pasture development programmes have led to greening of land. It has resulted in a considerable reduction in wind erosion and siltation of canal systems.
- ▶ **Negative Effect:** Due to intensive irrigation and excessive use of water, an alarming rate of water logging and soil salinity have been recorded.
- ▶ **Measures for Promotion of Sustainable Development**
 - ▶ The first requirement is strict implementation of water management policy. The canal project envisages protective irrigation in Stage-I and extensive irrigation of crops and pasture development in Stage-II.
 - ▶ In general, the cropping pattern shall not include water intensive crops. It shall be adhered to and people shall

be encouraged to grow plantation crops such as citrus fruits.

- ▶ The CAD programmes such as lining of water courses, land development and levelling and warabandi system shall be effectively implemented to reduce the conveyance loss of water.
- ▶ The area affected by water logging and soil salinity shall be reclaimed.
- ▶ The eco-development through afforestation, shelterbelt

plantation and pasture development is necessary particularly in the fragile environment of Stage-II.

- ▶ The social sustainability in the region can be achieved only if the land allottees having poor economic background are provided adequate financial and institutional support for cultivation of land.
- ▶ The economic sustainability in the region cannot be attained only through development of agriculture and animal husbandry. The agricultural and allied activities have to develop along with other sectors of economy.



Practice Exercise



Multiple Choice Questions

- Q 1. Which of the following plan was introduced to improve the conditions of roads in India after independence?**
- a. Five Year Road Plan b. Nagpur Plan
c. Ten Year Road Plan d. Twenty Year Road Plan
- Q 2. Which one of the following is not true about Bharmaur Tribal region? (CBSE 2023)**
- a This region comprises of Bharmaur and Holi Tehsil of Chamba district.
b It is not a notified tribal area.
c. It is mainly inhabited by the Gaddi tribal community.
d. The tribals practice transhumance.
- Q 3. Which of the following statement is NOT true regarding the Indira Gandhi Canal? (CBSE 2023)**
- a. It was previously known as the Rajasthan Canal.
b. It originates at the Harike barrage in Punjab.
c. The canal almost runs parallel to Pakistan border.
d. Rajasthan is least benefitted by this canal.
- Q 4. Which of the following commission replaced 'Planning Commission'? (CBSE 2023)**
- a. Election Commission b. NITI Aayog
c. Law Commission d. Education Commission
- Q 5. In which state is Bharmaur Tribal Region situated?**
- a. Uttarakhand b. Jammu & Kashmir
c. Himachal Pradesh d. Uttar Pradesh
- Q 6. What should be the height of an area in the hill area development programme?**
- a. 500 metres b. 600 metres
c. 700 metres d. 800 metres
- Q 7. In how many districts, drought-prone areas are identified?**
- a. 47 b. 57
c. 67 d. 77
- Q 8. From which Barrage, India Canal has been taken out?**
- a. Bhakra b. Nangal
c. Harike d. Thein

- Q 9. Which one of the following is the most crucial factor for sustainable development in Indira Gandhi Canal Command Area?**

- a. Agricultural development
b. Eco-development
c. Transport development
d. Colonisation of land.

- Q 10. Think about the following statement(s) about sustainability.**

- (i) It describes a process or situation that can last endlessly.
(ii) Natural resources must be used in a way that does not result in ecological debts due to overexploitation of the Earth's carrying and productive capacities.
(iii) Keeping the whole natural capital base above its current level is crucial for long term sustainability.

- a. Only (i) b. Only (ii)
c. Both (ii) and (iii) d. (i), (ii) and (iii)

- Q 11. Match Column I with Column II and select the correct answer from the codes given below the columns.**

Column I (Sustainable Development Goal (SDG))	Column II (Related with)
A. SDG 10	1. Climate change
B. SDG 13	2. Life on land
C. SDG 14	3. Reduced Inequalities
D. SDG 15	4. Life below water

A B C D

- a. 1 2 3 4
b. 4 3 2 1
c. 3 1 4 2
d. 2 4 1 3





Assertion & Reason Type Questions

Directions (Q. Nos. 12-13): In the questions given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:

- Both (A) and (R) are true and (R) is the correct explanation of (A).
 - Both (A) and (R) are true, but (R) is not the correct explanation of (A).
 - (A) is true, but (R) is false.
 - (A) is false, but (R) is true.
- Q 12. Assertion (A):** Development is dynamic and complex in nature.
Reason (R): The objective of planning is to utilise resources in sustainable manner.
- Q 13. Assertion (A):** There is an urgent need to conserve mineral resources in India.
Reason (R): For sustainable development, economic growth must be integrated with environmental concerns.

Answers

1. (d) 2. (b) 3. (d) 4. (b) 5. (c)
6. (b) 7. (c) 8. (c) 9. (a) 10. (d)
11. (c) 12. (b) 13. (a)



Passage Based Questions

Passage 1

Read the passage given below and answer the questions that follow by choosing the most appropriate option:

Indira Gandhi Canal, previously known as the Rajasthan Canal, is one of the largest canal systems in India. Conceived by Kunwar Sain in 1948, the canal project was launched on 31 March, 1958. The canal originates at Harike barrage in Punjab and runs parallel to Pakistan border for a distance of 40 km in Thar desert (Marusthali) of Rajasthan. The total planned length of the system is 9,060 km catering to the irrigation needs of a total culturable command area of 19.63 lakh hectares. Out of the total command area, about 70% was envisaged to be irrigated by flow system and the rest by lift system. The construction work of the canal system has been carried out in two stages. The command area of Stage-I lies in Ganganagar, Hanumangarh and Northern part of Bikaner districts. It has a gently undulating topography and its culturable command area is 5.53 lakh hectares. The command area of Stage-II is spread over Bikaner, Jaisalmer, Barmar, Jodhpur, Nagaur and Churu districts

covering culturable command area of 14.10 lakh hectares. It comprises desert land dotted with shifting sand dunes and temperature soaring to 50°C in summers. In the lift canal, the water is lifted up to make it to flow against the slope of the land. All the lift canals of Indira Gandhi Canal system originate at the left bank of main canal while all the canals on the right bank of main canal are flow channels. Irrigation in Stage-I command area of the canal was introduced in early 1960s, whereas the command area of Stage-II began receiving irrigation in mid-1980s. The introduction of canal irrigation in this dry land has transformed its ecology, economy and society. It has influenced the environmental conditions of the region, both positively as well as negatively. The availability of soil moisture for a longer period of time and various afforestation and pasture development programmes under CAD have resulted in greening the land. This has also helped in reducing wind erosion and siltation of canal systems. But the intensive irrigation and excessive use of water has led to the emergence of twin environmental problems of water logging and soil salinity.

- Q 1. The Indira Gandhi Canal originates in which of the following states?**
- Rajasthan
 - Punjab
 - Haryana
 - Uttar Pradesh
- Q 2. Which of the following has been a negative effect of Indira Gandhi Canal?**
- Decreasing soil moisture
 - Deforestation
 - Water salinity
 - All of these
- Q 3. Which among the following has been the advantage of introducing irrigation through Indira Gandhi Canal area?**
- Increasing agricultural productivity
 - Increasing crop intensity
 - Both a. and b.
 - Water logging
- Q 4. Which of the following type of erosion has been prevented with the introduction of Indira Gandhi Canal?**
- Soil erosion
 - Wind erosion
 - Glacial erosion
 - Fluvial erosion

Answers

1. (b) 2. (c) 3. (c) 4. (b)



Assertion & Reason Type Questions

Directions (Q. Nos. 12-13): In the questions given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:

- Both (A) and (R) are true and (R) is the correct explanation of (A).
- Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- (A) is true, but (R) is false.
- (A) is false, but (R) is true.

Q 12. Assertion (A): Development is dynamic and complex in nature.

Reason (R): The objective of planning is to utilise resources in sustainable manner.

Q 13. Assertion (A): There is an urgent need to conserve mineral resources in India.

Reason (R): For sustainable development, economic growth must be integrated with environmental concerns.

Answers

- (d)
- (b)
- (d)
- (b)
- (c)
- (b)
- (c)
- (c)
- (a)
- (d)
- (c)
- (b)
- (a)



Passage Based Questions

Passage 1

Read the passage given below and answer the questions that follow by choosing the most appropriate option:

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covering culturable command area of 14.10 lakh hectares. It comprises desert land dotted with shifting sand dunes and temperature soaring to 50°C in summers. In the lift canal, the water is lifted up to make it to flow against the slope of the land. All the lift canals of Indira Gandhi Canal system originate at the left bank of main canal while all the canals on the right bank of main canal are flow channels. Irrigation in Stage-I command area of the canal was introduced in early 1960s, whereas the command area of Stage-II began receiving irrigation in mid-1980s. The introduction of canal irrigation in this dry land has transformed its ecology, economy and society. It has influenced the environmental conditions of the region, both positively as well as negatively. The availability of soil moisture for a longer period of time and various afforestation and pasture development programmes under CAD have resulted in greening the land. This has also helped in reducing wind erosion and siltation of canal systems. But the intensive irrigation and excessive use of water has led to the emergence of twin environmental problems of water logging and soil salinity.

Q 1. The Indira Gandhi Canal originates in which of the following states?

- Rajasthan
- Punjab
- Haryana
- Uttar Pradesh

Q 2. Which of the following has been a negative effect of Indira Gandhi Canal?

- Decreasing soil moisture
- Deforestation
- Water salinity
- All of these

Q 3. Which among the following has been the advantage of introducing irrigation through Indira Gandhi Canal area?

- Increasing agricultural productivity
- Increasing crop intensity
- Both a. and b.
- Water logging

Q 4. Which of the following type of erosion has been prevented with the introduction of Indira Gandhi Canal?

- Soil erosion
- Wind erosion
- Glacial erosion
- Fluvial erosion

Answers

- (b)
- (c)
- (c)
- (b)

(i) Strict Implementation of Water Management Policy:

The first requirement is strict implementation of water management policy. The canal envisages protective irrigation in stage I and extensive irrigation of crops and pasture development in stage II.

(ii) Modifications in Cropping Pattern:

The cropping pattern shall not include water intensive crops. People shall be encouraged to grow plantation crops such as citrus fruits.

(iii) Effective Implementations of CAD Programmes:

The CAD programmes such as lining of water courses, land development and levelling and warabandi system (equal distribution of canal water in the command area of outlet) shall be effectively implemented to reduce the conveyance loss of water.

(iv) Reclaiming of Affected Areas: The areas affected by water logging and soil salinity shall be reclaimed.

(v) Provision of Adequate Support to Poor Land Allottees: The social sustainability in the region can be achieved only if the land allottees having poor economic background are provided adequate financial and institutional support for cultivation of land.

Q 2. Write in brief about the physical setting of Bharmaur regions.

Ans. The physical setting of Bharmaur region is discussed below:

- (i) This region lies between 32° 11' N and 32° 41' N latitudes, and 76° 22' E and 76° 53' E longitudes.
- (ii) Spread over an area of about 1818 sq km, the region mostly lies between an altitude of 1,500 m to 3,700 m above the mean sea level.
- (iii) This region is popularly known as the homeland of Gaddis (a tribal community) and is surrounded by lofty mountains on all sides.
- (iv) It has Pir Panjal Range in the North and Dhauladhar Range in the South.
- (v) In the East, the extension of Dhauladhar Range converges with Pir Panjal near Rohtang pass.
- (vi) The river Ravi and its tributaries the Budhil and the Tundahen, drain this territory and carve out deep gorges.
- (vii) These rivers divide the region into four physiographic divisions called Holl, Khanl, Kugtl and Tundah areas.
- (viii) Bharmaur experiences freezing weather conditions and snowfall in winter.
- (ix) Its mean monthly temperature remains 4°C in January and 26°C in July.

Q 3. Explain the main aims of Bharmaur Tribal Area Development plan.

Ans. The main aims and priorities of this project were as follows:

- (i) Improving the quality of life of the Gaddis.
- (ii) Narrowing the gap in the level of development between Bharmaur and other districts of Himachal Pradesh.
- (iii) The highest priority was on development of transport and communication, agriculture and allied activities as well as social and community services.
- (iv) To utilise local resources in an efficient manner.
- (v) To create new opportunities for the people.

Q 4. Discuss the social benefits of tribal sub-plan in the Bharmaur region.

Ans. Social benefits of tribal sub-plan were as follows:

- (i) There is tremendous increase in literacy rate, e.g., the female literacy rate in the region increased from 1.88% in 1971 to 65% in 2011.
- (ii) Decline in gender inequality i.e., the difference between male and female literacy rate has declined.
- (iii) Improvement in sex-ratio, decline in child marriages.
- (iv) Basic social facilities like education and health care were improved.
- (v) The vulnerable sections of the society were benefitted by this plan.

Q 5. What were the shortcomings of Integrated Tribal Development Project in Bharmaur?

Ans. The shortcomings of Integrated Tribal Development Project in Bharmaur are as follows:

- (i) In terms of infrastructural facilities, the remote villages in Tundah and Kugtl areas are still not developed.
- (ii) The method of crop cultivation is still traditional in nature.
- (iii) Even though pastoralism has declined, still a sizeable portion of the Gaddis migrate to Kangra and surrounding areas in order to earn living from wage labour during the cold season.
- (iv) It was not implemented equally in the whole region.
- (v) All the problems of the region were not addressed by this plan.

Q 6. Explain any three achievements of Indira Gandhi Canal Command Area Project.

Ans. The three achievements of Indira Gandhi Canal Command Area Project are:

- (i) **Availability of Irrigation Facilities:** After the construction of the Indira Gandhi Canal, irrigation facilities are available over an area of 6,770 square km in Jaisalmer district and 37 square km in Barmer district.
- (ii) **Transformation of Barren Deserts:** The canal has transformed the barren deserts of Rajasthan into fertile green fields.



- (iii) **Provision of Water for Various Uses:** Besides providing water for agriculture, the canal supplies drinking water to thousands of people in far-flung areas.

Q 7. Give a brief account of the two stages of development of Indira Gandhi Canal Project.

Ans. The construction work of the canal system has been carried out through two stages:

Stage I: The command area of stage I lies in Ganganagar, Hanumangarh and Northern part of Bikaner districts. It has a gently undulating topography and its culturable command area is 5.53 lakh hectares.

Stage II: The command area of stage II is spread over Bikaner, Jaisalmer, Barmer, Jodhpur, Nagpur and Churu districts, covering a culturable command area of 14.10 lakh hectares. It comprises desert land dotted with shifting sand dunes and temperature soaring to 50°C in summers.

Q 8. Describe five main points of Integrated Tribal Development Project implemented in Bharmaur region.

Ans. Following steps are taken for the attainment of tribal sub-plan strategy:

- (i) Improving the quality of life of the Goddis and narrowing the gap in the level of development between Bharmaur and other districts of Himachal Pradesh.
- (ii) The highest priority was on the development of transport and communication, agriculture and allied activities as well as social and community services.
- (iii) Improvement in the basic infrastructure of health care facilities; potable water supply, schools, transport and communication, training, marketing, credit and electricity supply. e.g. villages located along the river Ravi in Holi and Khanl areas are main beneficiaries of infrastructural development.
- (iv) Employment generation through agricultural allied activities like horticulture, animal husbandry and cottage industry.
- (v) The Goddis had traditionally subsistence agriculture cum pastoral economy. Later on, during the last three decades of the 20th century, pulses and other cash crops became one of the main crops of this region.



Long Answer Type Questions

Q 1. Discuss the effects of Indira Gandhi Canal on environment and agriculture.

Ans. The effects of Indira Gandhi Canal on environment can be understood as the environment of the region has been influenced by this project, both positively and negatively.

Positive Effects

- (i) Due to canal irrigation, there is sufficient soil moisture available for a longer duration.
- (ii) Various afforestation and pasture development programmes have led to greening of land.
- (iii) It has resulted in a considerable reduction in wind erosion and siltation of canal system.

Negative Effects

Problems of water logging and soil salinity have been witnessed due to intensive irrigation and excessive use of water.

The effects of Indira Gandhi Canal on agriculture can be understood as the agriculture of the region has been influenced by this project, both positively and negatively.

Positive Effects

- (i) Introduction of canal irrigation has led to an increase in cultivated land and intensity of cropping.
- (ii) Main commercial crops i.e., wheat, rice, cotton and groundnut have replaced drought resistant crops like gram, bajra and jowar.

Negative Effects

- (i) Intensive irrigation has become a cause of water logging and soil salinity.
- (ii) This may hamper sustainability of agriculture in future.

Q 2. Attaining sustainable development in the command area requires major thrust upon the measures to achieve ecological sustainability. Highlight the measures proposed to promote sustainable development in the command area of Indira Gandhi Rajasthan Canal. (CBSE SQP 2022 Term-2)

Ans. The measures proposed to promote sustainable development in the command area are meant to restore ecological balance are:

- (i) The first requirement is strict implementation of water management policy. The canal project envisages protective irrigation in Stage-I and extensive irrigation of crops and pasture development in Stage-II.
- (ii) In general, the cropping pattern shall not include water intensive crops. It shall be adhered to and people shall be encouraged to grow plantation crops such as citrus fruits.
- (iii) The CAD programmes such as lining of water courses, land development and leveling and warabandi system (equal distribution of canal water in the command area of outlet) shall be effectively implemented to reduce the conveyance loss of water.
- (iv) The areas affected by water logging and soil salinity shall be reclaimed.



- (v) The eco-development through afforestation, Shelter belt plantation and pasture development is necessary particularly in the fragile environment of Stage-II.
- (vi) The social sustainability in the region can be achieved only if the land allottees having poor economic background are provided adequate financial and institutional support for cultivation of land.

- (vii) The economic sustainability in the region cannot be attained only through development of agriculture and animal husbandry. The agriculture and allied activities have to develop along with other sectors of the economy. This shall lead to diversification of economic base and establishment of functional linkages between basic villages, agro-service centers and market centers.



Chapter Test

Multiple Choice Questions

- Q 1. What should be the height of an area in the hill area development programme?
- a. 500 metres b. 600 metres
c. 700 metres d. 800 metres
- Q 2. Which one of the following is the most crucial factor for sustainable development in Indira Gandhi Canal Command Area?
- a. Agricultural development
b. Eco-development
c. Transport development
d. Colonisation of land

Assertion and Reason Type Question

- Q 3. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:
- Assertion (A):** Development is dynamic and complex in nature.
Reason (R): The objective of planning is to utilise resources in sustainable manner.
- a. Both (A) and (R) are true and (R) is the correct explanation of (A).
b. Both (A) and (R) are true, but (R) is not the correct explanation of (A).
c. (A) is true, but (R) is false.
d. (A) is false, but (R) is true.

Passage Based Question

- Q 4. Read the passage given below and answer the questions that follow:
- The process of development of tribal area of Bharmaur started in 1970s when Gaddis were included among 'scheduled tribes'. Under the Fifth Five Year Plan, the tribal sub-plan was introduced in 1974 and Bharmaur was designated as one of the five Integrated Tribal Development Projects (ITDP) in Himachal Pradesh. This

area development plan was aimed at improving the quality of life of the Gaddis and narrowing the gap in the level of development between Bharmaur and other areas of Himachal Pradesh. This plan laid the highest priority on development of transport and communications, agriculture and allied activities and social and community services. The most significant contribution of tribal development sub-plan in Bharmaur region is the development of infrastructure in terms of schools, healthcare facilities, potable water, roads, communications and electricity. But the villages located along the river Ravi in Holi and Khani areas are the main beneficiaries of infrastructural development. The remote villages in Tundah and Kugti areas still do not have sufficient infrastructure.

- (i) Why is it necessary to develop infrastructural facilities for integrated development of a region? Explain.
(ii) Mention the main objective of 'integrated tribal development project' in Bharmaur region.
(iii) Explain the outcome of tribal development sub-plan in this region.

Very Short Answer Type Questions

- Q 5. What environmental problems are being faced at Indira Gandhi Canal Command Area?
Q 6. How has the Gaddi tribal community of Bharmaur region maintained a distinct identity?

Short Answer Type Questions

- Q 7. Write in brief about the physical setting of Bharmaur regions.
Q 8. What were the shortcomings of Integrated Tribal Development Project in Bharmaur?

Long Answer Type Question

- Q 9. Attaining sustainable development in the command area requires major thrust upon the measures to achieve ecological sustainability. Highlight the measures proposed to promote sustainable development in the command area of Indira Gandhi Rajasthan Canal.