

Management of Natural Resources

Intext Questions Page No. 269

Question 1. What changes can you make in your habits to become more environment friendly?

Answer:

1. We must refuse to buy products that harm us and the environment.
2. We should minimise the use of electricity and water.
3. We should encourage recycling of things.

Question 2. What would be the advantages of exploiting resources with short-term aims?

Answer: With the human population increasing at a tremendous rate due to improvement in health-care, the demand for all resources is increasing at an exponential rate. The management of natural resources requires a long term perspective so that these will last for the generations to come and will not merely be exploited to the hilt for short term gains.

Question 3.

How would these advantages differ from the advantages of using a long term perspective in managing our resources?

Answer:

If resources are used in accordance with short term aims, present generation will be able to utilize the resources properly for overall development. But if we plan to use resources with long term aims, not only the present generation is benefited but also the future generations will also be able to utilize resources for fulfilling its necessities. Thus it would be better to use our natural resources with a long term perspective so that it could be used by the present generation as well as conserved for future use.

Question 4.

Why do you think that there should be equitable distribution of resources? What forces would be working against an equitable distribution of our resources?

Answer:

Nature shows no partiality. Natural resources belong to all and these resources should be used judiciously. Equitable distribution of resources will benefit both poor as well as rich people.

Human greed, corruption, and the lobby of the rich and powerful are the forces working against an equitable distribution of our resources.

Intext Questions Page No. 273

Question 1. Why should we conserve forests and wildlife?

Answer: We should conserve forests and wildlife to preserve the biodiversity (range of different life-forms) so as to avoid the loss of ecological stability. A large number of tribes are the habitants in and around the forests. If the forests are not conserved,- then it may affect these habitants. Without proper management of forest and wildlife, the quality of soil, the water sources and even the amount of rainfall may be affected. Without forest and wildlife, life would become impossible for human beings.

Question 2. Suggest some approaches towards the conservation of forests.

Answer: Some approaches towards the conservation of forests are as follows:

(a) People should show their participation in saving the forest by protesting against the cutting of trees. For example, Chipko Andolan.

(b) Planting of trees should be increased. Rate of afforestation must be more than that of deforestation.

(c) Some people cut precious trees such as sandalwood to earn money. Government should take legal steps to catch these wood smugglers.

(d) Habitants of forests must not be bothered by the forest officials. Otherwise, this would result in the clash between tribal people and the government officials, thereby enhancing the naxal activities in forests.

Intext Questions Page No. 276

Question 1. Find out about the traditional systems of water harvesting/ management in your region.

Answer: We must dug small pits and lakes, put in place simple water shed systems, built small earthen dams, constructed dykes, sand and limestone reservoirs, set up roof top water collecting units. These are the traditional systems of water harvesting/management in our region.

Question 2. Compare the above system with the probable systems in hilly/ mountainous areas or plains or plateau regions.

Answer: In the above mentioned places check dams are built because here water harvesting is difficult.

Question 3. Find out the source of water in your region/locality. Is water from this source available to all people living in that area?

Answer: Tube wells and river water (Tungabhadra) are the water sources available to all people in our area. There are different sources in different places. In some places there is too much shortage of water because of failure of rain recently.

NCERT Textbook Exercises

Question 1. What changes would you suggest in your home in order to be environment-friendly?

Answer: Changes that can be undertaken in our homes to be environment friendly are listed below:

1. Switch off the electrical appliances when not in use.
2. Turn the taps off while brushing or bathing and repair the leaking taps.
3. Throw biodegradable and non-biodegradable waste into separate bins.
4. Construct composting pits.
5. Food items such as jam, pickles etc., come packed in plastic bottles. These bottles can later be used for storing things in the kitchen.

Question 2. Can you suggest some changes in your school which would make it environment-friendly?

Answer:

Changes that can be undertaken in our schools to make it environment friendly are listed below:

1. Electricity can be saved by switching off lights and fans when not required.
2. Turn the taps off when not in use.
3. Biodegradable and non-biodegradable wastes should be thrown into separate bins.

Question 3. We saw in this chapter that there are four main stakeholders when it comes to forests and wildlife. Which among these should have the authority to decide the management of forest produce? Why do you think so?

Answer: The forest department of the government should have the authority to decide the management of forest produces. This is because the forest department is the care taker of the forest land and is responsible for any damage to the forest.

Question 4. How can you as an individual contribute or make a difference to the management of

- (a) forests and wildlife
- (b) water resources and
- (c) coal and petroleum?

Answer:

a) Forests and wild animals.

1. cutting valuable trees should be avoided by destroying forest affects the quality of soil and water resources.
2. Hunting should be prohibited.
3. There should be wild sanctuaries which gives protection for wild animals.

b) Water Resources:

Answer:

1. Water resources should be free from pollution.
2. Excess usage of water should be avoided.

c) Coal and Petroleum:

Answer:

We should minimise the use of coal and petroleum, because these are fossil fuels. By burning these there are ill effects such as air pollution and acid rainfall etc.

Question 5. What can you as an individual do to reduce your consumption of the various natural resources?

Answer:

1. We must have come across the five R's to save the environment: Refuse, Reduce, Reuse, Repurpose and Recycle.
2. We should encourage tree plantation programmes.
3. We must reduce the burning of fossil fuels.
4. Encouragement should be given for harvesting the water.

Question 6. List five things you have done over the last one week to –

(a) conserve our natural resources.

Answer: We should travel in bus instead of using own vehicles or we should practice walking, we must use LED bulbs or fluorescent tubes in our homes. We must use the lift or taking the stairs, wearing an extra sweater or using a heating device (heater or sign) on cold days.

(b) increase the pressure on our natural resources.

Answer:

1. We should grow Number of trees around our house.
2. Reducing own vehicles by using public transport system or by, walking.
3. There should not be more factories.
4. We must prevent soil erosion.
5. We must reduce the usage of vehicles to avoid air pollution.

Question 7.

On the basis of the issues raised in this chapter, what changes would you incorporate in your lifestyle in a move towards sustainable use of our resources?

Answer:

We need to change our lifestyles so that we can use natural resources on a sustainable basis. The changes which can be brought about are as follows:

- Stop cutting trees and start planting trees.
- Use LED bulbs and fluorescent tubes.
- Take the stairs and avoid using lifts.
- During summers use bamboo made fans avoid air coolers and electricians.
- Use more of public transport.
- Let our conscience be always alert not to pollute the environment from any of our activities.

Additional Important Questions

Multiple Choice Questions

Question 1. The three R's to save the environment are:

(a) Reuse (b) Reduce (c) Recycle (d) Reduce, recycle, reuse

Answer: (d) Reduce, recycle, reuse

Question 2. Biodiversity is measured by

(a) The number of animals found in an area

(b) The number of mammalian found in an area

(c) The number of species found in an area

(d) The number of insects found in an area

Answer: (c) The number of species found in an area

Question 3. What are biodiversity hot spot?

(a) Village (b) River (c) Cities (d) Forests

Answer: (d) Forests

Question 4. Harvesting system in hilly areas like Himachal Pradesh uses a local system of irrigation called

(a) Tals (b) Canals (c) Kulhs (d) Ahass

Answer: (c) Kulhs

Question 5. Amrita Devi Bishnoi sacrificed her life with 363 people in 1731 to save

(a) Wildlife (b) Water (c) Girl child (d) Trees

Answer: (d) Trees

Question 6. Aim of 'Narmada Bachao Andolan', was

(a) Stopping dam formation (b) Stopping ban on dam formation

(c) Stopping water pollution (d) Garbage maintenance

Answer: (a) Stopping dam formation

Question 7. Coli form is

- (a) Group of fungi (b) Group of viruses
(c) Group of bacteria (d) All of these

Answer: (c) Group of bacteria

Question 8. Main aim of the Chipko movement was:

- (a) Water conservation (b) Ecological conservation
(c) Food conservation (d) All of the above

Answer: (b) Ecological conservation

Question 9. Which gas is a green house gas?

- (a) CO₂ (b) CO (c) SO₂ (d) NO₂

Answer: (a) CO₂

Question 10. The Chipko movement started in a village called

- (a) Reni in Uttarakhand (b) Kullu (c) Delhi (d) Mumbai

Answer: (a) Reni in Uttarakhand

Question 11. Indira Gandhi canal is an example of:

- (a) River (b) Man-made dam (c) Pond (d) All of these

Answer: (b) Man-made dam

Question 12. Kattas in Karnataka is famous for:

- (a) Water harvesting (b) Solar energy
(c) Biodiversity (d) None

Answer: (a) Water harvesting

Very Short Answer Type Questions

Question 1. Define natural resource.

Answer: The things available from nature are called natural resource.

Question 2. Name the 3 R's to save environment.

Answer: Reduce, recycle, reuse are the 3 R's to save environment.

Question 3. Give some examples of natural resources.

Answer: Examples of natural resources are water, timber and cotton.

Question 4. What is biodiversity?

Answer: Biodiversity is number of species that exists in an area.

Question 5. What increases demand of resources?

Answer: Increase in human population increases demand of resources.

Question 6. Why we should need to manage our resources?
Give one example.

Answer: We need to manage our resources for equitable distribution for every individual.

Question 7. Give one example of stakeholder of forest.

Answer: People who live in or around forest are best example of stakeholder of forest.

Question 8. In which village Chipko movement was started?

Answer: Chipko movement started in Reni village in Uttarakhand.

Question 9. What was the main purpose of Chipko andolan?

Answer: To stop tree cutting indiscriminately.

Question 10. What are the alternative sources to produce energy without creating pollution and disturbing ecological balance?

Answer: Sunlight, water, wind etc.

Question 11. Can we recycle everything?

Answer: No, because everything do not turn in usable form once being used.

Question 12. What is an example of biodiversity hot spot?

Answer: Forest.

Question 13. Write an importance of conservation of wild life.

Answer: Preserving biodiversity inherited in time.

Question 14. Write name of one activist for saving water.

Answer: Rajendra Kumar.

Question 15. Give an example of a place famous for water management in India.

Answer: Kulhs in Himachal Pradesh.

Short Answer Type Questions

Question 1. What are natural resources? Explain.

Answer: Natural resources can be broadly categorized into two types: exhaustible and non-exhaustible. Management of natural resources is all about their judicious use in a way that the exhaustible resources can last for many generations to come and non-exhaustible resources can be maintained in as pristine form as possible.

Question 2. What are three R's (Reduce, recycle and reuse)?

Answer:

Reduce: We should reduce the consumption of various resources wherever possible. For example; we can reduce the consumption of electricity and water.

Recycle: There are many items which can be recycled again and again. For example by recycling paper, we reduce the demand for wood and thus, help in saving the forest.

Reuse: Many items can be reused many times. For example; old newspaper, envelopes, plastic bottles.

Question 3. Who are the stakeholders of forest?

Answer: The stakeholders are as follows:

People living in or around forests; as they depend on various forest produce for their livelihood, the forest department which is the owner of the forest land, various industrialists who depend on forest for many raw materials. For example: wood is used as raw material in many industries.

So, the people, industry and Government body who are directly or indirectly affected by forest are called stakeholders of forest.

Question 4. Give one example of saving ecosystem by local communities.

Answer: Chipko Movement: The Chipko movement began in the early 1980s from a small village; Reni in Garhwal district. The women of the village began hugging the trees to prevent the cutting of trees by the contractors. The Chipko movement later spread to other parts of India.

Question 5. Give some examples of water harvesting method in ancient India.

Answer:

1. Khadins, tanks and nadis in Rajasthan.
2. Bandharas and tals in Maharashtra.
3. Bundhis in Madhya Pradesh and Uttar Pradesh.
4. Ahars and pynes in Bihar.
5. Kulhs in Himachal Pradesh.
6. Ponds in the Kandi belt of Jammu region and eris (tanks) in Tamil Nadu. Surangams in Kerala, and Kattas in Karnataka.

These are some of the ancient water harvesting examples and still in use at many places.

Question 6. What is the importance of traditional water harvesting structures?

Answer: The traditional water harvesting structures usually focus on recharging the groundwater rather making an open reservoir. It has several advantages. Unlike surface water; the groundwater does not evaporate and thus, loss because of evaporation is prevented. The groundwater does not provide a breeding ground for the mosquitoes and hence is good for public health as well. The groundwater is relatively protected from contamination by human activities.

Question 7. Why alternate energy sources is required in place of Coal and Petroleum? Give examples of alternate sources.

Answer: Coal and petroleum are the main energy resources for us. But, since these are exhaustible in nature so, we need to find out alternate sources of energy. Scientists are working on developing some alternate energy sources so that dependency on coal and petroleum can be reduced. Some examples are given below:

1. Solar energy is being used to produce electricity at many places. Although, this technology is still costly.
2. Fuel cell is another development which may help in replacing the internal combustion engines from automobiles.
3. Hydrogen is being used as fuel in buses and cars in many countries. Hydrogen; when used as a fuel produces water as a by-product. Thus, hydrogen can be an environment-friendly fuel.

Long Answer Type Questions

Question 1. Explain consequences of exploitation of natural resources and sustainable development.

Answer:

There are many consequences of exploitation of natural resources.

Some examples are given below:

1. Burning of fossil fuels creates air pollution. Excess amount of carbon dioxide in the atmosphere leads to global warming.
2. Some polluting gases; like oxides of nitrogen and sulphur lead to acid rain, which is harmful for living beings. Acid rain is also harmful for monuments and buildings.
3. Excess exploitation of groundwater leads to a drastic fall in water table. For this reason many places are experiencing acute shortage of drinking water.
4. Overuse of fertilisers and insecticides leads to soil pollution and soil erosion.
5. Many pollutants are directly flown into water bodies. This has resulted in water pollution in many rivers, lakes and even in oceans.

Sustainable Development:

Development is necessary for making all around economic development. But development often comes with a price in the form of environmental damage. Sustainable development means following certain practices which help in saving our environment from damage. This is necessary for maintaining the earth in a good shape so, that future generations can also enjoy bounty of nature.

Question 2. What are three R's?

Answer:

1. Reduce: We should reduce the consumption of various resources wherever possible. For example; we can reduce the consumption of electricity by switching off lights and other appliances when they are not required. While leaving the home, one should always check for fans and lights and switch them off. This cannot only help in saving electricity but also in saving the fuels which are utilised in electricity production. We should immediately repair a leaking tap so that precious water can be saved.

2. Recycle: There are many items which can be recycled again and again. Recycling is another way of reducing the demand for natural resources. For example; by recycling paper, we reduce the demand for wood and thus, help in saving the forest.

3. Reuse: Many items can be reused many times. For example; old newspaper can be used for packing many items. Old envelopes can be used, for doing rough work while doing homework. Old plastic bottles can be used for many other purposes.

Question 3.

Explain Arabari's example of People's Participation in Forest Management.

Answer:

In 1972, the forest department realized its mistake while reviving the degraded sal forests of Arabari forest range. Arabari forest lies in Midnapore district of West Bengal. The earlier methods of policing and surveillance were a total failure as they often led to frequent clashes with local people. It also led to alienation of people from the conservation programme. Then, came a forest officer; named A.K Baneijee; who was a real visionary. He involved the local people in the revival of 1,272 hectares of forest. In lieu of that the villagers were given employment in silviculture and were given 25% of the harvest. They were also allowed to gather firewood and fodder against a nominal payment. Due to active participation of the local community, there was remarkable revival of the Arabari sal forest. By 1983, the value of the forest rose to ? 12.5 crores.

Question 4.

Explain in brief about people 'effort for forest conservation'.

Answer:

Bishnoi community: The Bishnoi community of Rajasthan is one such example. Amrita Devi Bishnoi is still remembered with reverence for the way she fought for protecting the khejri trees in Khejrali village. She along with 363 other people sacrificed her life for the protection of khejri trees in 1731. The 'Amrita Devi Bishnoi National Award for Wildlife Conservation' has been named in her honour.

Nomadic herders of the Himalayas: The nomadic herders used to graze their animals near the great Himalayan National Park. Every summer, the nomadic people brought their herds down the valley so that the sheep could get plenty of grass to eat. When the National Park was made in that area, the nomadic herders were stopped from grazing their sheep in the protected area. Now, in the absence of grazing by the sheep, the grasses grew very tall in the region. Tall grasses fall over and prevent fresh growth of grass. This shows that by excluding and alienating the local people from forests, proper conservation efforts cannot be carried out.

Chipko movement: The Chipko began in the early 1980s from a small village; Reni in Garhwal district. The women of the village began hugging tree to prevent the cutting of trees by the contractors. The Chipko movement later spread to other parts of India.

Question 5.

Give two examples of forest conservation by local communities.

Answer:

Following are two examples of Forest conservation by local communities:

1. The Chipko movement began in the early 1980s from a small village; Reni in Garhwal district. The women of the village began hugging a tree to prevent the cutting of trees by the contractors. There are many examples which suggest that involvement of local communities is necessary for any conservation effort. The Bishnoi community of Rajasthan is one such example. Amrita Devi Bishnoi is still remembered with reverence for the way she fought for protecting the khejri trees in Khejrli village. She along with 363 other people, sacrificed her life for the protection of Khejri trees in 1731. The 'Amrita Devi Bishnoi National Award for Wildlife Conservation' has been named in her honour.

2. Another example is of the nomadic herders of the Himalayas. The nomadic herders used to graze their animals near the great Himalayan National Park. Every summer, the nomadic people brought their herds down the valley so that the sheep could get plenty of grass to eat. When the National Park was made in that area, the nomadic herders were stopped from grazing their sheep in the protected area. Now in the absence of grazing by the sheep, the grasses grew very tall in the region. Tall grasses fall over and prevent fresh growth of grass. This shows that by excluding and alienating the local people from forests, proper conservation efforts cannot be carried out.