

Class X Chapter 16 – Management of Natural Resources Science

Question 1:

What changes can you make in your habits to become more environment-friendly?

Solution 1:

The following habits can be adopted to become more environmentally-friendly:

- a. Minimize use of plastic. If used, try and reuse or recycle.
- b. Use water judiciously.
- c. Adopt smart ways of disposing waste.
- d. Keep your surroundings clean.
- e. Do not litter public places.

Question 2:

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

Solution 2:

None. Exploiting resources for short or long-term aims will result in harming the environment and take a toll on nature's health.

Question 3:

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

Solution 3:

In the case of a long-time perspective in managing our resources, these resources will last for generations to come. This management of resources ensures uniform distribution among the consumers.

Question 4:

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

Solution 4:

Natural resources of the Earth must be distributed among the people uniformly so that each one gets his share of the resource. Human greed, corruption, and inequality are the forces working against an equitable distribution of resources.

Question 1:

Why should we conserve forests and wildlife?

Solution 1:

We should conserve forests and wildlife because:

- a. Forests are home to the large number of plants and animal species
- b. Forests maintain ecological balance and hence, are responsible for regular cycle of seasons.

- c. Wildlife are a part of the ecosystem and disturbing their population shall affect the food chain.
- d. Besides, tribal population depend on forests in order to conserve their culture and tradition.

Question 2:

Suggest some approaches towards the conservation of forests.

Solution 2:

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) Government should take legal steps to catch wood smugglers.
-

Question 1:

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

Solution 1:

One of the traditional systems of water harvesting used in our region is tanks.

Question 2:

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

Solution 2:

In the plains, the water harvesting structures are crescent-shaped earthen embankments. These are low, straight, and concrete.

In hilly regions, the system of canal irrigation called Kulhs is used for water harvesting.

This involves the collection of rainwater in a stream, which is then diverted into manmade channels down the hillsides.

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?

Solution 3:

The source of water in our region is a river. Water from the source is available to all the people living in that area.

Question 1:

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

Solution 1:

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

- i. Switch off the electrical appliances when not in use.
- ii. Turn the taps off while brushing or bathing and repair the leaking taps.
- iii. Throw biodegradable and non-biodegradable waste into separate bins.
- iv. Construct composting pits.
- v. Food items such as jam, pickles, etc. come packed in plastic bottles. These bottles can be used later for storage purposes.

Question 2:

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

Solution 2:

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

- (i) Electricity can be saved by switching off lights and fans when not required.
- (ii) Turn the taps off when not in use.
- (iii) 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?

Solution 3:

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 caretaker 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?

Solution 4:

(a) Forest and wildlife:

- i. We should protest against the cutting of trees (deforestation).
- ii. We should protest against the poaching of wild animals.
- iii. We should stop the annexation of forest land for our use.

(b) Water resources:

- i. Turn the taps off while brushing or bathing and repair leaking taps.
- ii. We should practice rainwater harvesting.
- iii. We should avoid the discharge of sewage and other wastes into rivers and other water resources.

(c) Coal and petroleum:

- i. We should take a bus or practice car-pooling to avoid excessive use of petroleum.
- ii. We should stop using coal as a fuel
- iii. We should use alternative sources of energy such as hydro-energy and solar energy instead of depending largely on coal and petroleum.

Question 5:

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

Solution 5:

Natural resources such as water, forests, coal and petroleum, etc. are important for the survival of human beings. The ways in which we can reduce the consumption of various natural resources are as follows:

- i. We should stop the cutting of trees (deforestation).
- ii. We should use recycled paper to reduce the cutting down of trees.
- iii. We should not waste water.
- iv. We should practice rainwater harvesting.
- v. We should practice car-pooling to avoid the excessive use of petroleum.
- vi. We should use alternative sources of energy such as hydro-energy and solar energy.

Question 6:

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

- (a) conserve our natural resources
- (b) increase the pressure on our natural resources

Solution 6:

(a) To conserve our natural resources:

- (i) Travel by a CNG bus for long distances and walk for short distances. You can also use a cycle
- i. One can use recycled paper
- ii. Throw biodegradable and non-biodegradable waste into separate bins
- iii. Plant trees and promote afforestation
- iv. Use electricity and water judiciously.
- v. Adopt alternative sources of energy.

(b) To increase the pressure on our natural resources:

- i. Use non-renewable resources of energy
- ii. Waste water
- iii. Waste electricity
- iv. Use plastics and polythene bags for carrying goods
- v. Use escalators

Question 7:

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

Solution 7:

One should incorporate the following changes in life-style in a move towards a sustainable use of our resources:

- a. Stop cutting trees and practice plantation of trees.
- b. Stop using plastic and polythene bags for carrying goods.
- c. Use recycled paper.
- d. Throw biodegradable and non-biodegradable waste into separate bins.
- e. Waste the minimum amount of water while using and repair leaking taps.