

In-text Questions – 1**Page No: 27****1. What changes can you make in your habits to become more environment-friendly?****Solution**

In order to become more environment-friendly, the following practices can be incorporated into our day-to-day lives:

- Turning off any electrical appliance (such as TVs, water heaters, lights, fans, and air conditioners) when they are not in use.
- Avoiding the wastage of water by fixing any leaking taps or pipes as soon as possible. Also, the amount of water consumed must be controlled. For example, the tap should not be left running while brushing teeth.
- Disposing of plastic and glass wastes in recycling bins (many plastics take a long time to decompose and can have adverse effects on the environment).
- Using recyclable and eco-friendly products instead of convenient plastic products. For example, using paper or cloth bags instead of polythene bags is an environment-friendly habit.

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

The exploitation of resources with short-term goals means to the utilization of resources to meet immediate and current basic needs. This may not necessarily take into consideration the resources that would be available to future generations.

Advantages of exploiting resources with short-term goals:

1. Rapid industrial growth
2. Addressing and fulfilling the immediate requirement of the population
3. Compared to the long-term goals, gains are greater
4. Agricultural development

However, resources must be judiciously used considering their accessibility and availability in the future. Exploiting resources for short-term goals only indicates their gradual depletion for the present and coming generations.

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

The long-term model of resource consumption enables the conservation of the resources for them to be used by future generations. This will enable the economy to grow over a longer timeframe. It also provides more time for technology to advance and discover new, sustainable energy sources (such as nuclear fusion and fuel cells). All in all, the long-term perspective in managing resources has significantly greater advantages when compared to the short-term perspective.

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

Equitable distribution of resources enables every human to receive their share of the resources and makes sure that everyone has the basic requirements for life (such as food, water, shelter, etc.). The forces that work against equitable distribution include:

- The regional distribution of resources (such as soil and minerals).
- Corruption and greed of some humans
- Uneven distribution of resources between the rich and the poor.

In-text Questions – 2**Page No: 275****1. Why should we conserve forests and wildlife?****Solution**

The conservation of forests is very important for the stability of the environment. Forests serve as a home to a huge variety of life forms. Destruction of forests can disturb the food chain and lead to the extinction of many important species. Also, forests protect the soil from erosion and play a vital role in the water cycle. The loss of forests can severely affect the day-to-day lives of humans.

2. Suggest some approaches towards the conservation of forests.**Solution**

Some steps that can be taken to conserve forests include:

Planting of trees to combat deforestation.

Placement of security forces in forests to prevent the poaching and smuggling of forest resources.

Incorporating steps to protect the forest dwellers without disturbing their lifestyles.

Avoiding the conversion of forest land into roads, buildings, and dams.

In-text Questions – 3**Page No: 278****1. Find out about the traditional systems of water harvesting/ management in your region.****Solution**

In populated metropolitan cities, the primary sources of water include groundwater and lakes. Groundwater is harvested with the help of borewells, whereas pipes harvest water directly from the lakes. The harvested water is then stored in water tankers placed at strategic locations throughout the city.

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

In **hilly regions**, rainwater is often collected and channelled with the help of a stream. The stream is diverted to different areas with the help of canals for the purpose of irrigation. In mountainous regions, water is commonly obtained from the rivers that flow from the glaciers.

In the **plains**, water is obtained from many natural sources, such as lakes and rivers. Groundwater is also harvested with the help of borewells for irrigation and human consumption.

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**

In metropolitan cities, the primary source of water is groundwater. This water is made available to all people in the city. However, poor infrastructure in some localities makes it difficult for some people to obtain water.

Exercises Questions

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

Solution

Some important changes that can help make homes more environment-friendly include:

- Segregation of the garbage into biodegradable waste (food waste) and non-biodegradable waste (plastics).
- Use of eco-friendly products such as cloth shopping bags and paper cups instead of plastics.
- Avoiding the wastage of electricity by switching off the electrical appliances that are not in use.
- Avoiding the wastage of water by quickly fixing leaking taps and incorporating practices that reduce water wastage (such as closing the taps while brushing and using water judiciously while bathing).

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

Solution

Some important changes that can help make schools more environment-friendly include:

- Providing a platform for students and teachers to report any leaking taps so that they can be quickly repaired by the school plumber.
- Students and teachers must make sure all the lights and fans are switched off when the classes end for the day.
- Setting up waste segregation bins for biodegradable waste and non-biodegradable waste throughout the school.
- Promoting the use of transport methods such as bicycles and school buses.

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

The government's forest department should have the authority because they are a branch of the government which is elected by the people. However, these forest authorities must not be corrupt and must not accept bribes from poachers/smugglers. The forest authorities can use the resources of the government to effectively protect and preserve forests.

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

(a). An individual can contribute to the management of forest and wildlife resources by:

- Organizing and participating in rallies that protest against deforestation and wildlife poaching.
- Volunteering for many non-government organizations (NGOs) that work towards the protection of forests and wildlife.
- Organizing and participating in group activities that involve the planting of new trees in forest areas.

(b). An individual can contribute towards the management of water resources by:

- Avoiding the wastage of water in their daily lives by using water judiciously.
- Spreading awareness about the importance of water management by participating in rallies/ activities.
- Promoting practices such as rainwater harvesting and discouraging the discharge of wastewater and sewage into lakes and rivers.

(c). An individual can contribute towards the management of non-renewable energy sources such as coal and petrol by:

- Using fuel-efficient transportation methods such as carpooling, use of public transport, and use of bicycles.
- Using energy-efficient light sources such as CFLs and LEDs instead of ordinary bulbs.
- Using solar water heaters instead of electric heaters for heating water.

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

Solution

Practices that can be followed by individuals in order to reduce their consumption of natural resources include the following:

- Use of fuel-efficient transport options such as carpooling, bicycles, and public transport.
- Judicious use of water and avoidance of its wastage.
- Use of recycled products such as recycled paper and bottles to reduce the demand for natural resources.
- Promoting the use of renewable resources by using solar water heaters instead of electric heaters.

6. List five things you have done over the last week to (a) conserve our natural resources. (b) increase the pressure on our natural resources.

Solution

Practices for the conservation of natural resources include the following:

- Use of bicycles and public transport while travelling to reduce fuel consumption.
- Use of recycled paper and other recycled products.
- Segregation of garbage into biodegradable and non-biodegradable bins.
- Avoiding the wastage of water by using it judiciously and fixing any leaking taps/pipes.

Practices that deplete natural resources include the following:

- Wastage of electrical energy by leaving electrical appliances on after use.
- Wastage of water by ignoring any leaking pipes/taps and leaving the tap on while brushing.
- Excessive use of plastic products such as polythene bags.

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

Solution

The following changes can be incorporated into the lifestyles of individuals in order to move towards a sustainable usage of natural resources:

- Segregate the waste generated in homes into biodegradable and non-biodegradable waste.
- Avoid the wastage of electricity by switching off lights, fans, and other electrical appliances when not in use.
- Use water judiciously and avoid its wastage by quickly repairing any leaking taps/pipes.
- Avoid the wastage of water by regulating the quantity of water consumed for bathing, washing clothes, brushing, etc.
- Practising environment-friendly methods such as rainwater harvesting and planting of trees.
- Usage of recycled products such as recycled paper and bottles.
- Usage of eco-friendly products such as cloth shopping bags and paper cups instead of non-biodegradable polythene bags and disposable plastic cups.

