

## Sustainable Development with Equity

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### Improve your learning

**Q. 1. Identify at least ten food items that you consume and find out how far they have travelled from their place of production to reach your plate. (AS3)**

S. No	Food item	Distance traveled
a	Rice	
B	Cooking oil	
c	Bananas	

**Many people have argued for localization of food production rather than food traveling long distances. How is the localisation of food connected to the environment? Find out more about the localization movement in food and organize a discussion and debate in the classroom.**

**Answer :**

SR.NO	FOOD ITEM	DISTANCE TRAVELLED
1	RICE	20KM
2.	COOKING OIL	35KM
3.	BANANA	30KM
4.	FLOUR	15KM
5.	MILK	50KM
6.	DRY FRUITS	1000 KM
7.	BREAD	20KM
8.	DAL	35KM
9.	GHEE	40KM
10.	ORANGE	90KM

Localized food systems have not yet lost its importance. They are often characterized by a direct contact between consumer and producer. This helps to upgrade the level of Trust embedded within them. Localized food is a very important part of the regional rural development as it helps to overcome the crisis of farming. It also helps to revive the backward rural economies and to restore the consumer confidence in the food production system.

**Q. 2. Why did the people of Jalsindhi village refuse to move out of the village? (AS1)**

**Answer :** The people of Jalsindhi village refused to move out of the village because of the following reasons:

1. The people of Jalsindhi villages lived on the banks of Narmada river. They lived in the laps of nature and were closely linked to the environment.
2. They felt that they are the children of Narmada and are living since many of their own generations.
3. They used their seeds and manure from their own livestock.

**Q. 3. “This is the land of our forefathers. We have a right to it. If this is lost, then we will only get spades and pickaxes, nothing else...” says Bava Mahaliya. Can you explain the statement? (AS1)**

**Answer :** This statement can be explained by the following points :

1. The people of Jalsindhi villages lived on the banks of Narmada river. They lived in the laps of nature and were closely linked to the environment. They felt that they are the children of Narmada and are living since many of their own generations.
2. They used their seeds and manure from their own livestock. They believed that the forest is their moneylender as well as their banker.
3. Since they have been living there for many years they felt that they had a right over the river Narmada as well as on the forest.
4. They believed that all of the village gods were there. The memorial stones of their ancestor were also there.

So, it was the love and attachment towards Narmada river, that Bava Mahaliya said the above-mentioned statement and refused to move out of Gujarat.

**Q. 4. “Last, but not the least, the key to the environmental problem lies in changing lifestyles that will minimise waste and pollution.” (AS4)**

• **What are the various ways in which our lifestyles affect the environment?**

**Use examples from your own context to explain.**

• **Find out about the various ways in which the problems of garbage and emissions are being dealt with around the world.**

**Answer :**

• The different ways in our lifestyles have affected the environment are :

1. The population has been increasing over the years. This is due to the fall in mortality rate and improvement in medicine.
2. The increase in population has indirectly implied the increase in the use of fossil fuels which further damages the ecosystem.
3. The increase in pollution has further aggravated the problem either in the form of throwing waste on the highway or the million metric tons of waste dumped into the water. Presently 2.4 people do have access to clean water resources.
4. The increase in the level of global warming,
5. The increase in global warming has lead to an increase in the level of climatic change over the years of the earth.
6. Ocean acidification is increasing. This is caused when carbon dioxide dissolves into the ocean bonding with water to create carbonic acid.
7. People tend to throw waste into the water. Every year 1 billion tons of garbage is dumped into the ocean.
8. With the increase in the population, there is an increased requirement for shelter, food and other materials. This has led to an increase in the level of deforestation.
9. When humans burn coal, Sulphur dioxide and nitrogen oxide are released into the atmosphere where they rise up and accumulate with the clouds until the clouds fall on the ground in the form of acid rain. This type of rain damages the ecosystem as well as eliminate an entire species of animals.
10. The ozone layer has depleted over the years.

• The increased level of development in the world has become a challenge for maintaining the environment due to the improper disposal of garbage. But many **developed countries** have incorporated different types of modern techniques of waste management. They have also adopted it as the main source of their energy. They have focused on recycle and reuse as the main motto for the ecosystem. They have also developed different types of environmental friendly goods such as the eco friendly cars. They also imposed strict regulatory laws for protection to the environment. In the context of India, different measures are to be adopted for the rural areas and urban areas. **In the rural areas** disposal of waste can be undertaken by either composting or vermiculture.

**COMPOSTING:** Composting is the process by which different types of domestic waste such as grass, leftover food, leaves extra are collected. Next, a pit is dug up to prepare manure out of this garbage. The size of the pit depends upon the amount of garbage to be used. Village households can put all the domestic garbage into this space. The

manure will be ready in approximately six months. This manure is removed from the pit and is used for cultivation.

There are many advantages to this method such as it prevents pollution caused by rotting of garbage, and help to increase the yield in the field.

**Vermiculture:** Vermiculture is the process of decomposition of organic matter by microorganisms under controlled conditions. In this method, the manual is prepared by decomposition of organic waste such as leaf, grass and food garbage which is set in motion by earthworms. A layer of organic waste is laid in a wooden box or soil pit and some earthworms are released over it. Again garbage is put on top of it and water is sprayed on it. The earthworms consume a large quantity of organic waste and make compost. This is very important to sustain soil fertility.

**Garbage disposal in urban areas** is the main responsibility of municipalities. they have to arrange a proper system for disposal. However, the citizens also need to act responsibly to ensure that this type of work goes on smoothly. If waste management is done by adopting modern techniques, the environment can be protected from pollution.

**Scientific waste management:** For the proper waste disposal, we have to deal with this problem in four phases :

- a) reduce the amount of waste generated per person
- b) recycle and reuse
- c) iii) Biogas and organic manure would be produced from the remains after recycling and reusing.
- d) The remaining waste should be used to make fuel for electricity. This would save the fossil fuels and reduce the number of greenhouse gases emitted in the atmosphere.

**Q. 5. Rapid extraction of minerals and other natural resources would adversely impact the future development prospects. Do you agree? (AS4)**

**Answer :** The rapid extraction of minerals and other natural resources would adversely impact the future development prospects in the following ways :

1. In the primary sector, in activities like mining and quarrying, the production depends on the natural resources. However, our current resource level is not sufficient for future generations. They would have to face scarcity of resources. Moreover, the manner in which we use resources may lead to serious damages
2. The mineral extraction capacity has already reached. Further extraction would lead to scarcity of resources in future.
3. The demand for petroleum will increase many folds over the years, which will increase its price.

4. The forest cover of Earth is reducing every year due to increase in population leading to an increase in demand for food, industrial activity, etc.

**Q. 6. Why do you think the effects of climate change may be felt by all countries? (AS1)**

**Answer :** Climate changes leads to an increase in the average Earth's temperature, increase the sea level, change in the precipitation level, etc. It affects the important natural resources. Other results include deforestation, industrialisation, global warming, and emission of poisonous gases. The Earth's temperature is increasing every year. A rise of 20 C in the average temperature would result in a rise of one meter in sea level. This would adversely affect the coastal areas and millions of people .

Climate change is a global concern, and thus, all countries are affected by it.

**Q. 7. Should the average temperature of the earth be treated as a natural resource for all people? Why? (AS1)**

**Answer :** Yes, the average temperature of the earth should be treated as a natural resource for all people because it is a basic pre requisite for the existence of human life on this planet. The average temperature of Earth is 13 degree Celsius, but it varies depending upon many factors.

It is the temperature that makes this planet a place to survive. A change in the climate would negatively affect natural resources. Other results include deforestation, industrialisation, global warming, and emission of poisonous gases. A rise of 20 C in the average temperature would result in a rise of one meter in sea level. This would adversely affect the coastal areas and millions of people .

Thus, the temperature is an extremely matter of concern.

**Q. 8. What are the lessons to be drawn from the alternate PDS initiative at Zaheerabad mandal in Telangana? (AS4)**

**Answer :** The following lessons to be drawn from the alternate PDS initiative at Zaheerabad manual in Andhra Pradesh :

1. The farmers of Zaheerabad revived their farm culture by using only those crops that are suitable to their land and climatic conditions.
2. Food security was ensured in the area by using the locally grown grain millets.
3. They realized that depositing grains in a grain bank is better than exporting it.

**Q. 9. “Environment is crucially important for the lives and livelihoods of the local communities and the lifestyles of local communities are harmonious with the environment.” Explain. (AS6)**

**Answer :** The environment is extremely crucial for the lives and livelihood of humans. In rural areas, the people are closely linked to their environment and have a strong sense of attachment as well as a dependency with the same. The environment is rich in diversity and can provide many employment opportunities if looked into carefully.