

Pre - Test

Choose the best answer.

1. What is introduction of contaminants into the natural environment that cause negative change is called_____.

- a. Water pollution
- b. Air pollution
- c. Radioactive
- d. Pollution

2. What chemical is emitted from the combustion of fossil fuels?

- a. sulfur dioxide
- b. carbon dioxide
- c. carbon
- d. nitrogen oxide

3. What is the major cause of air pollution?

- a. mining operations
- b. agricultural activities
- c. burning of fossil fuels
- d. exhaust from factories

4. What is by product from agriculture related activities that is the most hazardous?

- a. carbon
- b. nitrogen
- c. ammonia
- d. oxygen

5. Insecticides, _____, and fertilizers emit chemicals into the air.

- a. dynamite
- b. ammonia
- c. cyanide
- d. pesticides

6. Why manufacturing industries are also one of cause of air pollution?

- a. Releasing large amount of minerals
- b. Releasing large amount of ammonia
- c. Releasing large amount of carbon monoxide
- d. Releasing large amount of sulfur dioxide

7. What chemicals are released from petroleum refineries?
- a. carbon dioxide
 - b. sulfur dioxide
 - c. hydrocarbons
 - d. organic compounds
8. What is process wherein minerals below the earth are extracted?
- a. mining
 - b. petroleum
 - c. burning of fossil fuels
 - d. paper industry
9. What is the effect of releasing nitrogen oxide and sulfur oxide?
- a. respiratory problem
 - b. acid rain
 - c. heart problem
 - d. cancer
10. What causes the wildlife species to move to a new place and change their habitat?
- a. climate change
 - b. toxic chemicals
 - c. scarce of food
 - d. weather
11. Which of these pollutants can cause soil pollution?
- a. toxic fumes
 - b. improper drainage
 - c. oil
 - d. fertilizers
12. Agricultural pollution, industrial wastes and urban activities are types of _____ pollution.
- a. soil
 - b. water
 - c. air
 - d. noise
13. How many percent of oil pollution is caused by industrial waste products ?
- a. 95 %
 - b. 70 %
 - c. 50 %
 - d. 90 %
14. What is a result of many activities by mankind which contaminate the soil?
- a. noise pollution
 - b. industrial waste
 - c. agricultural pollution
 - d. soil pollution

15. Which of these causes soil pollution?

- a. sanitary waste leakage
- b. oil spill from tankers
- c. exhaust from factories
- d. social events

16. How to control soil pollution ?

- a. improve insulation
- b. avoid dynamite fishing
- c. reduce the use of fertilizers and pesticides
- d. use public transport

17. What is the effect of soil pollution ?

- a. hearing problem
- b. reduced soil fertility and increased in soil erosion
- c. respiratory and heart problem
- d. acid rain

18. What urban activity that can be a soil pollution?

- a. proper waste disposal
- b. excess waste deposition
- c. waste segregation
- d. tree planting

19. When dose noise become a pollution?

- a. when it comes from fireworks
- b. when it is beside your house
- c. when it comes from music
- d. when it gets too loud or lasts too long

20. Which of the following is an indoor pollutant from our houses?

- a. chalk dust
- b. insecticide spray
- c. fuel
- d. all of the above

21. All of the following are potential health effects associated with noise pollution except
- a. low blood pressure
 - b. hearing problem
 - c. headache
 - d. sleeping disorder
22. What is loud noise that disturb human or animals?
- a. air pollution
 - b. water pollution
 - c. land pollution
 - d. noise pollution
23. What are the causes of noise pollution?
- a. industrialization
 - b. social events
 - c. construction activities
 - d. all of the above
24. Which of these activities belongs to construction activities that can cause noise pollution?
- a. welding
 - b. party
 - c. aeroplanes flying
 - d. construction of bridges and dams
25. How to minimize the effect of noise in a factory?
- a. wear ear plugs
 - b. stay away
 - c. don't work in company
 - d. use face masks
26. What are some sources of noise pollution?
- a. musical instrument
 - b. transportation equipment
 - c. heavy machineries
 - d. both B and C
27. What is the main cause of water pollution?
- a. humans
 - b. animals
 - c. plants
 - d. sewage
28. Water pollution can damage _____ .
- a. ecosystem
 - b. habitat
 - c. food chain
 - d. all of the above

29. What is one way to conserve water?

- a. takes shorter showers
- b. water your plants daily
- c. drink a lot of water
- d. keeps your faucet running

30. What is water pollution ?

- a. water is being contaminated with pollutants
- b. when you get dirty water
- c. when the water tastes bad
- d. when fishes die

31. What is one way that water gets contaminated?

- a. when you drink too much
- b. when there is a flood
- c. when factories release chemicals into the water
- d. when fishes overpopulate the water

32. What is major water pollutant ?

- a. fish
- b. sewage
- c. flowers
- d. rocks

33. Where dose water pollution usually come from?

- a. animals
- b. flood
- c. human activities
- d. factories

34. How is water pollution detected?

- a. through the running water
- b. with your naked eye
- c. in a laboratory
- d. by tasting it

35. How does acid rain develop?
- a. oil spills
 - b. sewage
 - c. when you throw car batteries in the air
 - d. pollution being released into the atmosphere
36. What does the word mean dirty or unsafe?
- a. contaminated
 - b. run off
 - c. chemicals
 - d. fertilizer
37. What is the most common pollutant found on the beach?
- a. clothing
 - b. plastic
 - c. paper
 - d. fertilizer
38. How can water pollution be prevented?
- a. throwing plastics on the beach
 - b. conserve energy
 - c. prevent throwing of waste to the rivers and beaches
 - d. put on earplugs
39. What does the word "pollutant" mean?
- a. something that causes pollution
 - b. prevent pollution
 - c. help reduce pollution
 - d. effect of pollution
40. Which of these can help to avoid noise pollution?
- a. Put on earplugs
 - b. Close the windows
 - c. Choose a home in a noise free area
 - d. All of the above

Environmental Pollution



Environmental Pollution refers to the introduction of harmful pollutants into the environment. These pollutants contaminate the environment. It has a hazardous effect on the natural world and on the activities of living beings. The major kinds of pollution are (classified by environment) air pollution, water pollution, land pollution and noise pollution.

Air Pollution



Vocabulary Preview

Look at the underlined words in the "Air Pollution" article then match each word with their definitions.

- | | |
|--------------------------|--|
| _____ 1. pollution | a. risky; dangerous |
| _____ 2. emit | b. causing a lot of damage or destruction |
| _____ 3. hazardous | c. a vehicle or system of vehicles, such as buses, trains, etc. for getting from one place to another: |
| _____ 4. mineral | d. the act of sending out gas, heat, light, etc. |
| _____ 5. devastating | e. to make something become larger in amount or size: |
| _____ 6. increase | f. a valuable or useful chemical substance that is formed naturally in the ground |
| _____ 7. consumer | g. damage caused to water, air, etc. by harmful substances or waste |
| _____ 8. counterpart | h. to send out a beam, noise, smell, or gas |
| _____ 9. emission | i. a person who buys goods or services for their own use |
| _____ 10. transportation | j. a person or thing that has the same purpose as another one in a different place or organization |



Air pollution is one such form that refers to the contamination of the air, irrespective of indoors or outside. A physical, biological or chemical alteration to the air in the atmosphere can be termed as **pollution**. It occurs when any harmful gases, dust, smoke enters into the atmosphere and makes it difficult for plants, animals and humans to survive as the air becomes dirty.

Causes of Air pollution

1. Burning of Fossil Fuels: Sulfur dioxide emitted from the combustion of fossil fuels like coal, petroleum and other factory combustibles is one the major cause of air pollution. Pollution emitting from vehicles including trucks, jeeps, cars, trains, airplanes cause immense amount of pollution. We rely on them to fulfill our daily basic needs of transportation. But, there overuse is killing our environment as dangerous gases are polluting the environment.

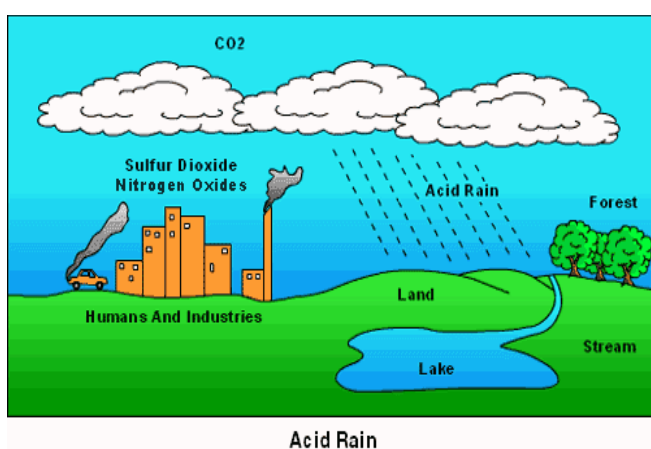
2. Agricultural activities: Ammonia is a very common by product from agriculture related activities and is one of the most **hazardous** gases in the atmosphere. Use of insecticides, pesticides and fertilizers in agricultural activities has grown quite a lot. They emit harmful chemicals into the air and can also cause water pollution.

3. Exhaust from factories and industries: Manufacturing industries release large amount of carbon monoxide, hydrocarbons, organic compounds, and chemicals into the air thereby depleting the quality of air. Petroleum refineries also release hydrocarbons and various other chemicals that pollute the air and also cause land pollution.

4. Mining operations: Mining is a process wherein minerals below the earth are extracted using large equipments. During the process dust and chemicals are released in the air causing massive air pollution.

5. Indoor air pollution: Household cleaning products, painting supplies emit toxic chemicals in the air and cause air pollution.

Effects of Air pollution



1. Respiratory and heart problems: The effects of Air pollution are alarming. They are known to create several respiratory and heart conditions along with Cancer, among other threats to the body.

2. Acid Rain: Harmful gases like nitrogen oxides and sulfur oxides are released into the atmosphere during the burning of fossil fuels. Acid rain can cause great damage to human, animals and crops.

3. Effect on Wildlife: Just like humans, animals also face some devastating effects of air pollution. Toxic chemicals present in the air can force wildlife species to move to new place and change their habitat.

4. Global warming: Another direct effect is the immediate alterations that the world is witnessing due to Global Warming. With increased temperatures worldwide, increase in sea levels and melting of ice from colder regions and icebergs, displacement and loss of habitat have already signaled an impending disaster if actions for preservation and normalization aren't undertaken soon.

Solutions for Air Pollution

1. Use public mode of transportation: Encourage people to use more and more public modes of transportation to reduce pollution.

2. Conserve energy: Switch off fans and lights when you are going out. Large amount of fossil fuels is burnt to produce electricity. You can save the environment from degradation by reducing the amount of fossil fuels to be burned.

3. Understand the concept of Reduce, Reuse and Recycle: Do not throw away items that are of no use to you. In-fact reuse them for some other purpose. For e.g. you can use old jars to store cereals or pulses.

4. Emphasis on clean energy resources: Clean energy technologies like solar, wind and geothermal are on high these days. Governments of various countries have been providing grants to consumers who are interested in installing solar panels for their home. This will go a long way to curb air pollution.

5. Use energy efficient devices: CFL lights consume less electricity as against their counterparts. They live longer, consume less electricity, lower electricity bills and also help you to reduce pollution by consuming less energy.

How do you protect from air pollution?

Here are some simple, effective tips for protecting you and your family from the dangers of air pollution:

1. Check daily air pollution forecasts in your area.

Download application on your mobile device through the Google Play Store or the iPhone iTunes store. Other sources include local radio and TV weather reports and newspapers.

2. Avoid exercising outdoors when pollution levels are high. When the air is bad, walk indoors in a shopping mall or gym or use an exercise machine. Limit the amount of time your child spends playing outdoors if the air quality is unhealthy.

3. Use less energy in your home. Generating electricity and other sources of energy creates air pollution. By reducing energy use, you can help improve air quality, curb greenhouse gas emissions, encourage energy independence and save money!



4. Don't allow anyone to smoke indoors and support measures to make all public places tobacco-free.

5. Don't burn wood or trash. Burning firewood and trash are among the major sources of particle pollution (soot) in many parts of the country.

Reading Comprehension

Choose the best answer.

1. **What is this passage mainly about?**
 - a. Causes and effects of air pollution and how to solve and protect ourselves from the problem.
 - b. How to protect ourselves from air pollution.
 - c. How to protect ourselves from acid rain.
2. **What is the main idea of the first paragraph?**
 - a. Factories and industries cause the most air pollution.
 - b. Air pollution is the contamination of the air caused by gases, dust, and smoke.
 - c. Air pollution are mostly outdoors.
3. **Which chemical of the following is caused by burning of fuels?**
 - a. Ammonia
 - b. Sulfer dioxide
 - c. Carbon monoxide
4. **Which of the following statements is true?**
 - a. Carbon dioxide is one of the chemicals that cause air pollution.
 - b. Carbon monoxide is a common by product from agriculture related activities.
 - c. Household cleaning products can harm the air.
5. **Which of the following is not the effect of air pollution?**
 - a. Increasing of temperatures around the world
 - b. Acid rain
 - c. Heavy rain.
6. **What is the meaning of "habitat" as it is used in the sentence "Toxic chemicals present in the air can force wildlife species to move to new place and change their habitat."?**
 - a. A natural environment to live
 - b. A house
 - c. A shelter

7. Which sentence is true about solutions for air pollution?

- a. Using public transportation can help reduce air pollution.
- b. It is not necessary to use clean energy technologies to help reduce air pollution.
- c. CFL lights consume more electricity, so it can help reduce pollution in the air.

8. What should you do if you and your family are affected from air pollution?

- a. Avoid being outside.
- b. Use more energy inside your home.
- c. Burn woods to use as energy.

9. If you want to reduce air pollution and cost of electricity bills, what type of lights should you use?

- a. CFL lights
- b. GLS lights
- c. Classic lights
- d. Decorative Round lights

10. The word "improve" is closest in meaning to_____.

- a. reduce
- b. induce
- c. increase
- d. enhance

Summary

Fill in the blanks with the correct words.

Pollution	dangerous	chemicals	population
atmosphere	toxic	reduce	harmful
carbon monoxide	public transportation		

Air 1. _____ is one of the main environmental issues nowadays. There are many reasons behind regularly increasing this air pollution. Most of the air pollution is caused by the automobiles, transport means, industrialization, growing cities, etc. The release of several 2. _____ gases or 3. _____ elements from such sources is causing the whole atmospheric air pollution. Ozone layer is also getting affected too much by the air pollution which causes serious disturbances to the environment. Increasing need of the ever growing human 4. _____ is main cause of pollution. Daily human being activities causing dangerous 5. _____ to release, making 6. _____ dirtier than ever and

forcing the climate change negatively. Industrialization process releases many harmful gases, particles, paint and batteries contains lead, cigarettes releases 7._____, transport means releases CO₂ and other 8._____ substances to the atmosphere. All the pollutants are being in contact with the atmosphere, destroying the ozone layer and calling harmful rays of sun to the earth. In order to 9._____ the level of air pollution we should bring some huge changes to our habits on daily basis. We should not cut trees, use 10._____, avoid spray cans, and so many activities in the favor to reduce the effects of air pollution.

Water Pollution



Vocabulary Preview

Look at the underlined words in the "Air Pollution" article then match each word with their definitions.

- | | |
|----------------------|--|
| _____ 1. waste | a. to have an influence on something |
| _____ 2. disrupt | b. (an) illness of people, animals, plants, etc., caused by a failure of health rather than by an accident |
| _____ 3. impact | c. a situation in which there is not enough of something |
| _____ 4. pollutant | d. the act of using, eating, or drinking something |
| _____ 5. Oil spill | e. unwanted matter or material of any type, especially what is left after useful substances |
| _____ 6. contain | f. a harmful substance that causes pollution |
| _____ 7. disease | g. to prevent something, esp. a system, process, or event, from continuing as usual or as expected |
| _____ 8. consumption | h. to have something inside or include something as a part |
| _____ 9. shortages | i. to get rid of something, especially by throwing it away |
| _____ 10. dispose | j. an accident in which oil has come out of a ship and caused pollution |



Water Pollution is when waste, chemicals, or other particles cause a body of water (i.e. rivers, oceans, lakes) to become harmful to the fish and animals that need the water to survive. Water pollution can disrupt and negatively impact nature's water cycle as well.

Causes of Water Pollution

1. **Sewage and waste water:** Sewage from domestic households, factories and commercial buildings. Sewage that is treated in water treatment plants is often disposed into the sea. Sewage can be more problematic when people flush chemicals and pharmaceutical substances down the toilet.

2. **Marine dumping:** The garbage produced by each household in the form of paper, aluminum, rubber, glass, plastic, food if collected and deposited into the sea in some countries. When such items enter the sea, they not only cause water pollution but also harm animals in the sea.

3. **Industrial waste:** Industries produce huge amount of waste which contains toxic chemicals and pollutants which can cause air pollution and damage to us and our environment. They contain pollutants such as lead, mercury, sulphur, asbestos, nitrates and many other harmful chemicals. Many industries do not have proper waste management system and drain the waste in the fresh water which goes into rivers, canals and later in to sea.

4. Accidental Oil leakage: Oil spill pose a huge concern as large amount of oil enters into the sea and does not dissolve with water; there by opens problem for local marine wildlife such as fish, birds and sea otters.

5. Burning of fossil fuels: Fossil fuels like coal and oil when burnt produce substantial amount of ash in the atmosphere. The particles which contain toxic chemicals when mixed with water vapor result in acid rain. Also, carbon dioxide is released from burning of fossil fuels which result in global warming.

6. Chemical fertilizers and pesticides: Chemical fertilizers and pesticides are used by farmers to protect crops from insects and bacterias. They are useful for the plants growth. However, when these chemicals are mixed up with water produce harmful for plants and animals. Also, when it rains, the chemicals mix up with rainwater and flow down into rivers and canals which pose serious damages for aquatic animals.

Effects of water pollution

1. Toxic rainfall can occur in areas where water and/or air is polluted with toxic chemicals and materials.

2. Polluted water can lead to sickness, disease, infections, deformities and even death among animals and plant life.

3. Once water becomes polluted it can affect people and animals either directly through consumption or indirectly through food sources, land degradation and the overabundance of plants and algae which can cover the surface of various bodies of water making it undrinkable and affecting the animals that live in that body of water.

4. Ecosystems are destroyed by the rising temperature in the water, as coral reefs are affected by the bleaching effect due to warmer temperatures. Additionally, the warm water forces indigenous water species to seek cooler water in other areas, causing an ecological damaging shift of the affected area.

1. Never throw rubbish away anyhow. Always look for the correct waste bin. If there is none around, please take it home and put it in your trash can. This includes places like the beach, riverside and water bodies.

2. Use water wisely. Do not keep the tap running when not in use. Also, you can reduce the amount of water you use in washing and bathing. If we all do this, we can significantly prevent water shortages and reduce the amount of dirty water that needs treatment.



3. Buy more environmentally safe cleaning liquids for use at home and other public places. They are less dangerous to the environment.

4. If you use chemicals and pesticides for your gardens and farms, be mindful not to overuse pesticides and fertilizers.

This will reduce runoffs of the chemical into nearby water sources. Start looking at options of composting and using organic manure instead.

5. If you live close to a water body, try to plant lots of trees and flowers around your home, so that when it rains, chemicals from your home does not easily drain into the water.

How do you protect from water pollution?

1. Use Less Plastic It is very difficult to break down plastic after it is produced. Much of the plastic we consume ends up in the world's water supply, where it is even harder to fish out and safely throw away. If you can use as few plastic items as possible, you are helping the environment.

2. Do Not Dispose Oils in the Sink While there is nothing wrong with consuming oils in your food, or applying them on your body, it is a bad idea to dispose of oils in the sink. It is better to dispose of oils in the garbage, or collect all your excess oil in one bottle and then throw that away.

3. Cleaning Chemicals Similar to oils, cleaning chemicals are hazardous when they enter the water supply. If you are emptying out containers of household cleaning supplies, do it in the trash can not the sink.

4. Do not Throw Away Medicines Never throw away medicines in the water supply either. Even if you have whole pills that you do not need, it is a bad idea to flush them down the toilet or crush them in your kitchen sink disposal.

5. Household Items Do not throw household items, such as cloths, dental floss or wrappers, into the toilet when you are done with them. Toilet paper is specifically made in a way that breaks down easily in water pipes, but these other items pollute the system.

6. Garbage Disposal Even though most homes have a garbage disposal system in the sink, it is better to use it as rarely as possible. This system can break down solid objects, but those items are harmful to the water supply. It is better to throw them in the trash can when possible.

7. Dishwashing or Laundry Only use your dishwasher or washing machine when it is close to being full. Using these machines to clean one or two dishes, or a few pairs of clothes, is an incredible waste of water. The less amount of water you use during washing, the less promote water pollution.



Reading Comprehension

Choose the best answer.

1. What is the main focus on this reading?

- a. How oil pollutes the water around the world.
- b. The importance of water pollution problem.
- c. Causes and effects of water pollution and how to deal with it.

2. What is the main idea of the first paragraph?

- a. It is essential to solve the water pollution problem.
- b. Water pollution is when pollutants leak into a body of water and cause harm to living things in the water.
- c. Human can die from drinking polluted water.

3. The word "harm" is closest in meaning to_____.

- a. cause
- b. injure
- c. protect
- d. prevent

Mark each statement as true (T) or false (F) according to the passage.

- | | | |
|--|---|---|
| 1. Water pollution can't disrupt nature's water cycle. | T | F |
| 2. Many industries drain the waste in the fresh water. | T | F |
| 3. Acid rain is resulted from burning of fossil fuels. | T | F |
| 4. Pesticides are one of the chemicals used by fishermen that can cause water pollution. | T | F |
| 5. The rising of water temperature can destroy ecosystems. | T | F |
| 6. Planting trees is another solution for water pollution. | T | F |
| 7. It is ok to throw away medicine in the water supply. | T | F |

Summary

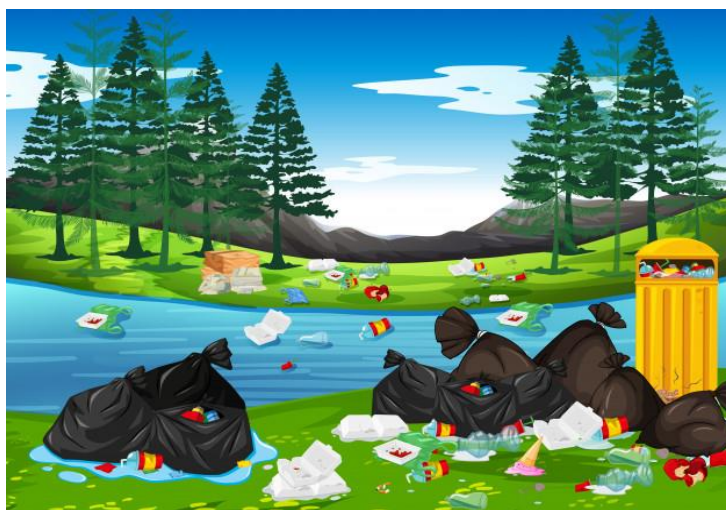
Fill
in
the

waste	disease	shortages	pollutant	impact
harm	pesticides	damage	polluted	ecosystem

blanks with the correct words.

1. High concentrations of toxic elements were found in the _____ areas of the sea.
2. Pollution can have bad effects on the balanced _____.
3. The first symptom of the _____ is a very high temperature
4. Sulphur dioxide or CFCs is a harmful _____.
5. The _____ that farmers spray on their crops kill pests, but they can also damage people's health.
6. The company was charged with illegally disposing of toxic _____.
7. I try not to _____ animals, but was forced to kill the spider crawling in my bed.
8. The long hot summer has led to serious water _____.
9. Strong winds had caused serious _____ to the roof.
10. Rising pollution and increased burning of fossil fuels has had a huge _____ on global warming.

Land Pollution



Vocabulary Preview

Write the letter of the word or phrase with the same meaning as the underline word or phrase.

- | | | | |
|----------------|------------------|------------------|-----------------|
| a. agriculture | b. mining | c. surface | d. sewage |
| e. reuse | f. environment | g. deforestation | h. soil erosion |
| i. fertilizer | j. biodegradable | | |

1. _____ The action of clearing a wide area of trees
2. _____ A chemical or natural substance added to soil or land to increase its fertility
3. _____ The process or industry of obtaining coal or other minerals from a mine
4. _____ The surroundings or conditions in which a person, animal or plant lives or operates.
5. _____ The science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products
6. _____ The outside part or uppermost layer of something

7. _____ The action of using something again
8. _____ a substance or object of being decomposed by bacteria or other living organisms and thereby avoiding pollution
9. _____ The process of eroding or being eroded by wind, water, or other natural agents
10. _____ refuse liquids or waste matter usually carried off by sewers



Land Pollution occurs when soil contains chemicals that are toxic or otherwise dangerous for humans and other living things. The chemicals may be foreign to the area, or they may be naturally occurring materials that pollute the soil by being present in dangerously high amounts.

Causes of Land Pollution

1. Agricultural activities: With growing human population, demand for food has increased considerably. Farmers often use highly toxic fertilizers and pesticides to get rid of insects, fungi and bacteria from their crops. However, with the overuse of these chemicals, they result in contamination and poisoning of soil.

2. Mining activities: During extraction and mining activities, several land spaces are created beneath the surface. We constant hear about land caving in; this is nothing but nature's way of filling the spaces left out after mining or extraction activity.

3. Overcrowded landfills: Each household produces tones of garbage each year. Garbage like aluminum, plastic, paper, cloth, wood is collected and sent to the local recycling unit. Items that cannot be recycled become a part of the landfills that hampers the beauty of the city and cause land pollution.



4. Industrialization: Due to increase in demand for food, shelter and house, more goods are produced. This resulted in creation of more waste that needs to be disposed of. To meet the demand of the growing population, more industries were developed which led to deforestation.

Research and development paved the way for modern **fertilizers** and chemicals that were highly toxic and led to soil contamination.

5. Construction activities: Due to urbanization, large amount of construction activities are taking place which has resulted in large waste articles like wood, metal, bricks, plastic that can be seen by naked eyes outside any building or office which is under construction.

6. Nuclear waste: Nuclear plants can produce huge amount of energy through nuclear fission and fusion. The left over radioactive material contains harmful and toxic chemicals that can affect human health. They are dumped beneath the earth to avoid any casualty.

7. Sewage treatment: Large amount of solid waste is leftover once the **sewage** has been treated. The leftover material is sent to landfill site which end up in polluting the environment.

Effects of Land Pollution

1. Soil pollution: Soil pollution is another form of land pollution, where the upper layer of the soil is damaged. This is caused by the overuse of chemical fertilizers, **soil erosion** caused by running water and other pest control measures; this leads to loss of fertile land for **agriculture**, forest cover, fodder patches for grazing etc.

2. Change in climate patterns: The effects of land pollution are very hazardous and can lead to the loss of ecosystems. When land is polluted, it directly or indirectly affects the climate patterns.

3. Environmental Impact: When deforestation is committed, the tree cover is compromised on. This leads to a steep imbalance in the rain cycle. A disturbed rain cycle affects a lot of factors. To begin with, the green cover is reduced. Trees and plants help balance the atmosphere, without them we are subjected to various concerns like global warming, the greenhouse effect, irregular rainfall and flash floods among other imbalances.

4. Effect on wildlife: The animal kingdom has suffered mostly in the past decades. They face a serious threat with regards to loss of habitat and natural environment. The constant human activity on land, is leaving it polluted; forcing these species to move further away and adapt to new regions or die trying to adjust. Several species are pushed to the verge of extinction, due to no homeland.



5. Deforestation and soil erosion:

Deforestation carried out to create dry lands is one of the major concerns. Land that is once converted into a dry or barren land, can never be made fertile again, whatever the magnitude of measures to redeem it are. Land conversion,

meaning the alteration or modification of the original properties of the land to make it use-worthy for a specific purpose is another major cause.

Solutions for Land

1. Make people aware about the concept of Reduce, Recycle and Reuse.
2. Reduce the use of pesticides and fertilizers in agricultural activities.
3. Avoid buying packages items as they will lead to garbage and end up in landfill site.
4. Ensure that you do not litter on the ground and do proper disposal of garbage.
5. Buy biodegradable products.
6. Do Organic gardening and eat organic food that will be grown without the use of pesticides.

7. Create dumping ground away from residential areas.

28

How do you protect from land pollution?

1. For Households Everyone should try to minimize the domestic waste as much as they can do. You should follow the rule of 3Rs which are reuse, reduce and recycle. Human is the main source of domestic waste, so, everyone must cooperate with waste collection parties by putting their wastes at the right place. You should follow the best practices for the disposal of the domestic waste.

2. Industries waste Industries produce waste usually which are very harmful and in high amount. So, they should put their waste at a place from where it could be easily lifted for its final disposal. They should cooperate the society in order to spread less harmful effects to the environment. Industries should follow the government rules related to their wastes management.

3. The role of hospitals They should be very cautious with their wastes as they can contain



lots of infectious things and microorganism. They should use appropriate technology to dispose of their wastes. They should dispose them after sterilization depending upon the rules of the country. Hospitals should put their solid waste at proper place to help waste collection contractors to

take it without any inconvenience or its littering.

4. How community should control soil pollution It is one of the most important issues of the community, people should motivate households to throw it to the designated places. The community can play a great role by spreading awareness about soil pollution and solid waste management to its members.

5. The role of waste collection contractors Waste collection companies should show punctuality and lift the domestic and industrial waste without any delay. They should transport

29

the waste at landfill sites safely and at proper time. They should dispose different types of waste with different ways. They should segregate the reusable and recyclable items before dumping it into the disposal sites.

6. The role of civic agencies They should plan the management of solid waste in true spirit which will handle the increasing owing to increase in population and the excretion of waste materials. They should use more budgets if needed to carefully handle the management system.

7. The role of authorities Authorities should make strict laws to punish those who don't play their role in waste management. It is a sensitive matter which can cause very bad results if not treated properly.

Reading Comprehension

Mark each statement as true (T) or false (F) according to the passage.

- | | | |
|--|---|---|
| 1. Land Pollution occurs when soil contains chemicals that are toxic or otherwise dangerous for humans and other living things. | T | F |
| 2. Organic agriculture is one of causes of land pollution. | T | F |
| 3. Farmers often use low toxic fertilizers in agriculture. | T | F |
| 4. Due to increase in demand for food, shelter and house, more goods are produced. This resulted in creation of more waste. | T | F |
| 5. Construction activities increase large waste. | T | F |
| 6. The land pollution doesn't effect to wildlife. | T | F |
| 7. People should avoid buying packages items as they will lead to garbage and end up in landfill site. | T | F |
| 8. Create dumping ground away from residential areas is one of solutions for land pollution. | T | F |
| 9. Industries should not follow the government rules related to their wastes management. | T | F |
| 10. Community should control soil pollution by spreading awareness about soil pollution and solid waste management to its members. | T | F |

Summary

Choose the best word or phrase to fill in the blank.

- Farmers often use highly toxic fertilizers and _____ to get rid of insects.

a. pesticides	b. bacteria
c. crops	d. garbage
- Each household produces _____ like aluminum, plastic, paper, cloth, wood is collected and sent to the local recycling unit.

a. useful things	b. garbage
------------------	------------

c. surface

d. mining

31

3. _____ activities are taking place which has resulted in large waste articles like wood, metal, bricks, plastic

a. Mining

b. Nuclear

c. Sewage treatment

d. Construction

4. When _____ is committed, the tree cover is compromised on. This leads to a steep imbalance in the rain cycle.

a. mining

b. deforestation

c. wildlife

d. sewage

5. Make people _____ about the concept of Reduce, Recycle and Reuse.

a. aware

b. forget

c. drop

d. descend

6. Avoid buying packages items as they will lead to _____ and end up in landfill site.

a. fertilizers

b. garbage

c. ground

d. resident

7. Everyone should try to _____ the domestic waste as much as they can do.

a. increase

b. enlarge

c. expand

d. minimize

8. Authorities should make strict laws to _____ those who don't play their role in waste management.

a. admire

b. punish

c. pleased

d. commend

9. We should reduce the use of pesticides and fertilizers in _____ activities.

a. agricultural

b. mining

c. construction

d. Industrialization

10. Items that cannot be _____ become a part of the landfills that hampers the beauty of the city and cause land pollution.

a. reused

b. recycled

c. renovated

d. repaired

32

Noise Pollution



Vocabulary Preview

Write the letter of the word or phrase with the same meaning as the underline word or phrase.

a. machine

b. hearing

c. damage

d. earplugs

e. disturb

f. communicate

g. misunderstanding

h. aggressive

i. vibration

j. noisy

1. _____ Interfere with the normal arrangement or functioning of
2. _____ An apparatus using mechanical power and having several parts, each with a definite function and together performing a particular task
3. _____ Making or given to making a lot of noise
4. _____ A failure to understand something correctly
5. _____ A piece of wax, rubber, or cotton wool placed in the ear as protection against noise, water, or cold air
6. _____ The faculty of perceiving sounds

7. _____ Ready or likely to attack or confront; characterized by or resulting from aggression.

33

8. _____ An instance of vibrating.

9. _____ Physical harm that impairs the value, usefulness, or normal function of something.

10. _____ The imparting or exchanging of information by speaking, writing, or using some other medium.



Noise Pollution takes place when there is either excessive amount of noise or an unpleasant sound that disturb people. This definition is usually applicable to sounds or noises that are unnatural in either their volume or their production.

Causes of Noise Pollution

1. Industrialization: Most of the industries use big machines which are capable of producing large amount of noise. Therefore, you must have seen workers in these factories and industries wearing ear plugs to minimize the effect of noise.

2. Social Events: Noise is at its peak in most of the social events. Whether it is marriage, parties, pub, disc or place of worship, people normally flout rules set by the local administration and create nuisance in the area.

3. Transportation: Large number of vehicles on roads, aeroplanes flying over houses,



underground trains produce heavy noise and people get it difficult to get accustomed to that. The high noise leads to a situation where in a normal person lose the ability to hear properly.

4. Construction Activities: Under construction activities like mining, construction of bridges, dams,

35

buildings, stations, roads, flyovers take place in almost every part of the world. These construction activities take place every day as we need more buildings, bridges to accommodate more people and to reduce traffic congestion. The down point is that these construction equipments are too noisy.

5. Household Chores: We are surrounded by gadgets and use them extensively in our daily life. Gadgets like TV, mobile, mixer grinder, pressure cooker, vacuum cleaners, washing machine and dryer, cooler, air conditioners are minor contributors to the amount of noise that is produced but it affects the quality of life of your neighborhood in a bad way.

Effects of Noise Pollution

1. Hearing Problems: Any unwanted sound that our ears have not been built to filter can cause problems within the body. Our ears can take in a certain range of sounds without getting damaged. Constant exposure to loud levels of noise can easily result in the damage of our ear drums and loss of hearing. It also reduces our sensitivity to sounds that our ears pick up unconsciously to regulate our body's rhythm.

2. Health Issues: Excessive noise pollution in working areas such as offices, construction sites, bars and even in our homes can influence psychological health. Studies show that the occurrence of aggressive behavior, disturbance of sleep, constant stress, fatigue and hypertension can be linked to excessive noise levels. These in turn can cause more severe and chronic health issues later in life.

3. Sleeping Disorders: Loud noise can certainly hamper your sleeping pattern and may lead to irritation and uncomfortable situations. Without a good night sleep, it may lead to

problems related to fatigue and your performance may go down in office as well as at home. It is therefore recommended to take a sound sleep to give your body proper rest.

4. Trouble Communicating: High decibel noise can put trouble and may not allow two people to communicate freely. This may lead to **misunderstanding** and you may get difficult understanding the other person. Constant sharp noise can give you severe headache and disturb your emotional balance.

36

5. Effect on Wildlife: Wildlife faces far more problems than humans because noise pollution since they are more dependent on sound. Animals develop a better sense of hearing than us since their survival depends on it. The ill effects of excessive noise begin at home. Pets react more aggressively in households where there is constant noise.

Solutions for Noise Pollution

1. Close the windows. By simply closing the windows, we can reduce the amount of noise entering into our homes and buildings. It keeps away unwanted sound. The best thing to do is to only open windows during the quitter times of the day, most probably late in the evenings.

2. Install a fence. This may sound extreme, but it qualifies as a practical way to reduce noise pollution. Noise is produced by strong sound waves or **vibrations** which can be significantly reduced by barriers. By installing a fence, you'll be creating a barrier that absorbs the strong sound waves or vibrations thereby reducing noise pollution around your office or home.

3. Be creative with the office or house layout. One way to reduce noise in the house or in an office setting is getting innovative with the general layout. For instance, noisy machines can be situated in areas that are not close to the sitting/resting or working areas.

4. Plant trees. Trees have been established to be effective in reducing noise levels within urban settings, around major highways, and even at the places we stay. Therefore, numerous plants and trees in an area mean less noise pollution. In addition to that, trees have various aesthetic advantages and improve.

5. Invest in sound friendly furniture. Furniture are great sound absorbers as they

reduce echo and sound vibrations. Therefore, sound friendly lounge chairs, bookshelves, couches and cabinets can have an effect on the acoustics of open spaces. For instance, in case of a **noisy** neighbor, put a big bookshelf against the wall to reduce the noise coming from their house or building.

6. The use of calming green waves. These are the highway and noisy areas (such as airports, train stations and industries) sound insulation measures that can help absorb the huge sounds produced by the operating machines.

37

7. Put pressure on the relevant city or governing authorities to introduce noise regulation policies. Governing and city authorities are highly placed at introducing policies which can help reduce noise pollution. The laws should limit the amount of noise in public and private places to reduce noise pollution. The policies can also be integrated in transportation network construction and activities such as low-noise road surfaces, low-noise tracks, redesigning street spaces, enforcing speed limits and reducing traffic volume.

How do you protect from noise pollution?

1. Put on earplugs. Wearing **earplugs** is a cost-effective solution of reducing noise pollution. A pair of earplugs can be worn while sleeping or at any other time of the day when you want to reduce the amount of noise hitting your eardrums. Earplugs have their health benefits especially for those who want to have a healthy sleeping habit in noisy areas.

2. Improve your insulation. Insulation measures are some of the basic and most practical ways to reduce noise pollution at home. It's an art of soundproofing which helps in blocking the sound vibrations and noise. By improving insulation it means installing soundproofing materials on the walls, ceiling and even on the floor. The use of double-pane windows can also aid in absorbing noise.



"You're such a good listener,
Rodney, I like that in a man!"

3. Turn off the electronic or reduce the volume. Game systems, computers, Hi-fi systems, and televisions can contribute to noise pollution when on high volumes. The solution is to turn them off when not in use and also keep them on moderate volume to reduce noise pollution. Besides, by turning them off you'll also be saving electricity costs.

4. Cancel or mask the noise. Canceling or masking the noise is one of the simplest and practical techniques of reducing noise pollution. It is achieved through the creation of peaceful sounds to cancel the awful ones. It can simply be done by turning on a fan or hanging wind chimes. For the majority of people, it may seem contradictory but it is a proven

38

effective method of masking or canceling the horrible and bothering sounds. Furthermore, there are white noise machines that can make the canceling or masking easier.

5. Move or choose a home in noise-free areas. Moving away from noisy areas can also qualify as a practical way of reducing noise pollution. It may sound extreme but moving from areas such as airports, train stations, industrial districts and major highways can reduce noise levels greatly.



...Kru Khaitun...

Reading Comprehension

Choose the best answer.

1. What are the main ideas of this reading?

- a. The causes and the solutions of noise pollutions.
- b. The problem of noise pollution.
- c. The causes and the solutions of noise pollutions and land pollutions.
- d. The problem of noise pollution and land pollutions.

2. Which is True according to the reading?

- a. Transportation is one of causes of noise pollution.
- b. Cooking in big hotels is one of causes of noise pollution.
- c. Washing machine and dryer, cooler, air conditioners are not minor contributors to the amount of noise.
- d. Mining is not the cause of noise pollution.

3. Which is NOT true, according to the reading?

- a. The down point of construction equipments are too noisy.
- b. High decibel noise can put trouble of communication.
- c. The laws should not limit the amount of noise in public and private places to reduce noise pollution.
- d. Canceling or masking the noise is one of the simplest and practical techniques of reducing noise pollution.

4. How can people protect from noise pollution?

- a. Move or choose a home in noise-free areas
- b. Move to stay near the construction areas
- c. Wearing earrings to protect noise pollution
- d. Turn off the lights whole day and night.

5. How does the sound of construction sites, bars effect for people?

- a. It disturbs people when they sleep.
- b. It helps people more cheerful when they want to sleep.
- c. It doesn't effect for people.
- d. It can reduce noise at night.

6. From the passage, why do people close the window?

- a. To reuse the amount of noise entering into their homes.
- b. To decrease the amount of noise entering into their homes.
- c. To create the amount of noise entering into their homes.
- d. To produce the amount of noise entering into their homes.

7. Why do the sounds of vehicles on roads, planes influent for people?

- a. They produce heavy noise for people.
- b. They help people be stronger than the past.
- c. They don't disturb people anyway.
- d. They support people to speak or communicate easily.

8. Which word is closet in meaning to the word "unwanted sound"?

- | | |
|-------------------|--------------------|
| a. too loud noise | b. beautiful sound |
| c. polite word | d. quiet sound |

9. Which is True according to the reading?

- a. We can't protect from noise pollution.
- b. Insulation measures are some of the basic and most practical ways to reduce noise pollution at home.
- c. Computers, Hi-fi systems, and televisions can't contribute to noise pollution when on high volumes.
- d. Moving away from noisy areas can't qualify as a practical way of reducing noise pollution.

10. How can we control the sounds of game systems, computers, Hi-fi systems, and televisions?

- a. Turn on them all the time to make them work fluently.
- b. Turn them off when not in use and also keep them on moderate volume.
- c. Sell them out to reduce sound pollution.
- d. We can't control the sounds of game systems, computers, Hi-fi systems, and televisions.

Summary

Choose the best answer.

1. Noise Pollution takes place when there is either excessive amount of noise or an unpleasant sound that _____ people.

- a. advance
- b. disturb
- c. promote
- d. support

2. Workers in factories and industries wearing _____ to minimize the effect of noise.

- a. helmet
- b. earrings
- c. ear plugs
- d. necklace

3. Loud levels of noise can easily result in the damage of our ear drums and loss of_____.

- a. hearing
- b. taste
- c. feeling
- d. touching

4. Noise pollution in working areas such as offices, construction sites can influence _____ health.

- a. psychological
- b. phylactery
- c. phyllome
- d. phylloxera

5. Loud noise can certainly _____ your sleeping pattern.
 - a. free
 - b. liberate
 - c. hamper
 - d. assist
6. High decibel noise can put trouble and may not allow two people to _____ freely.
 - a. write
 - b. paint
 - c. communicate
 - d. oppose
7. We can _____ the amount of noise entering into our homes and buildings by closing the window.
 - a. reduce
 - b. multiple
 - c. increase
 - d. added
8. Furniture are great sound absorbers as they reduce echo and sound _____.
 - a. sparkling
 - b. vibrations
 - c. inhalation
 - d. deodorize
9. Wearing earplugs is a cost-effective _____ of reducing noise pollution.
 - a. problem
 - b. trouble
 - c. question
 - d. solution
10. _____ the electronic or reduce the volume can solve noise pollution.
 - a. Open
 - b. Turn on
 - c. Close
 - d. Turn off

Post - Test

Choose the best answer.

1. What is introduction of contaminants into the natural environment that cause negative change is called_____.

- a. Water pollution
- b. Air pollution
- c. Radioactive
- d. Pollution

2. What chemical is emitted from the combustion of fossil fuels?

- a. sulfur dioxide
- b. carbon dioxide
- c. carbon
- d. nitrogen oxide

3. What is the major cause of air pollution?

- a. mining operations
- b. agricultural activities
- c. burning of fossil fuels
- d. exhaust from factories

4. What is by product from agriculture related activities that is the most hazardous?

- a. carbon
- b. nitrogen
- c. ammonia
- d. oxygen

5. Insecticides, _____, and fertilizers emit chemicals into the air.

- a. dynamite
- b. ammonia
- c. cyanide
- d. pesticides

6. Why manufacturing industries are also one of cause of air pollution?

- a. Releasing large amount of minerals
- b. Releasing large amount of ammonia
- c. Releasing large amount of carbon monoxide
- d. Releasing large amount of sulfur dioxide

7. What chemicals are released from petroleum refineries?
- a. carbon dioxide
 - b. sulfur dioxide
 - c. hydrocarbons
 - d. organic compounds
8. What is process wherein minerals below the earth are extracted?
- a. mining
 - b. petroleum
 - c. burning of fossil fuels
 - d. paper industry
9. What is the effect of releasing nitrogen oxide and sulfur oxide?
- a. respiratory problem
 - b. acid rain
 - c. heart problem
 - d. cancer
10. What causes the wildlife species to move to a new place and change their habitat?
- a. climate change
 - b. toxic chemicals
 - c. scarce of food
 - d. weather
11. Which of these pollutants can cause soil pollution?
- a. toxic fumes
 - b. improper drainage
 - c. oil
 - d. fertilizers
12. Agricultural pollution, industrial wastes and urban activities are types of _____ pollution.
- a. soil
 - b. water
 - c. air
 - d. noise
13. How many percent of oil pollution is caused by industrial waste products ?
- a. 95 %
 - b. 70 %
 - c. 50 %
 - d. 90 %
14. What is a result of many activities by mankind which contaminate the soil?
- a. noise pollution
 - b. industrial waste
 - c. agricultural pollution
 - d. soil pollution

15. Which of these causes soil pollution?

- a. sanitary waste leakage
- b. oil spill from tankers
- c. exhaust from factories
- d. social events

16. How to control soil pollution ?

- a. improve insulation
- b. avoid dynamite fishing
- c. reduce the use of fertilizers and pesticides
- d. use public transport

17. What is the effect of soil pollution ?

- a. hearing problem
- b. reduced soil fertility and increased in soil erosion
- c. respiratory and heart problem
- d. acid rain

18. What urban activity that can be a soil pollution?

- a. proper waste disposal
- b. excess waste deposition
- c. waste segregation
- d. tree planting

19. When dose noise become a pollution?

- a. when it comes from fireworks
- b. when it is beside your house
- c. when it comes from music
- d. when it gets too loud or lasts too long

20. Which of the following is an indoor pollutant from our houses?

- a. chalk dust
- b. insecticide spray
- c. fuel
- d. all of the above

21. All of the following are potential health effects associated with noise pollution except
- a. low blood pressure
 - b. hearing problem
 - c. headache
 - d. sleeping disorder
22. What is loud noise that disturb human or animals?
- a. air pollution
 - b. water pollution
 - c. land pollution
 - d. noise pollution
23. What are the causes of noise pollution?
- a. industrialization
 - b. social events
 - c. construction activities
 - d. all of the above
24. Which of these activities belongs to construction activities that can cause noise pollution?
- a. welding
 - b. party
 - c. aeroplanes flying
 - d. construction of bridges and dams
25. How to minimize the effect of noise in a factory?
- a. wear ear plugs
 - b. stay away
 - c. don't work in company
 - d. use face masks
26. What are some sources of noise pollution?
- a. musical instrument
 - b. transportation equipment
 - c. heavy machineries
 - d. both B and C
27. What is the main cause of water pollution?
- a. humans
 - b. animals
 - c. plants
 - d. sewage
28. Water pollution can damage _____ .
- a. ecosystem
 - b. habitat
 - c. food chain
 - d. all of the above

29. What is one way to conserve water?

- a. takes shorter showers
- b. water your plants daily
- c. drink a lot of water
- d. keeps your faucet running

30. What is water pollution ?

- a. water is being contaminated with pollutants
- b. when you get dirty water
- c. when the water tastes bad
- d. when fishes die

31. What is one way that water gets contaminated?

- a. when you drink too much
- b. when there is a flood
- c. when factories release chemicals into the water
- d. when fishes overpopulate the water

32. What is major water pollutant ?

- a. fish
- b. sewage
- c. flowers
- d. rocks

33. Where dose water pollution usually come from?

- a. animals
- b. flood
- c. human activities
- d. factories

34. How is water pollution detected?

- a. through the running water
- b. with your naked eye
- c. in a laboratory
- d. by tasting it

35. How does acid rain develop?
- a. oil spills
 - b. sewage
 - c. when you throw car batteries in the air
 - d. pollution being released into the atmosphere
36. What does the word mean dirty or unsafe?
- a. contaminated
 - b. run off
 - c. chemicals
 - d. fertilizer
37. What is the most common pollutant found on the beach?
- a. clothing
 - b. plastic
 - c. paper
 - d. fertilizer
38. How can water pollution be prevented?
- a. throwing plastics on the beach
 - b. conserve energy
 - c. prevent throwing of waste to the rivers and beaches
 - d. put on earplugs
39. What does the word "pollutant" mean?
- a. something that causes pollution
 - b. prevent pollution
 - c. help reduce pollution
 - d. effect of pollution
40. Which of these can help to avoid noise pollution?
- a. Put on earplugs
 - b. Close the windows
 - c. Choose a home in a noise free area
 - d. All of the above

บรรณานุกรม

Environmental Pollution / แหล่งที่มา <https://www.importantindia.com/10612/essay-on-environmental-pollution/> สืบค้นเมื่อ 15 พฤศจิกายน 2560

Air Pollution. / แหล่งที่มา <http://www.lung.org/our-initiatives/healthy-air/outdoor/airpollution/10-ips-to-protect-yourself.html> / สืบค้นเมื่อ 15 พฤศจิกายน 2560

Air Pollution. / แหล่งที่มา <https://www.conserve-energy-future.com/causes-effects-solutions-of-air-pollution.php> / สืบค้นเมื่อ 15 พฤศจิกายน 2560

Water Pollution. / แหล่งที่มา <http://www.whalefacts.org/water-pollution-facts-causes-effects-solutions> / สืบค้นเมื่อ 15 พฤศจิกายน 2560

Land Pollution. / แหล่งที่มา <https://www.conserve-energy-future.com/causes-effects-solutions-of-land-pollution.php> / สืบค้นเมื่อ 15 พฤศจิกายน 2560

Noise Pollution / แหล่งที่มา <https://www.conserve-energy-future.com/causes-and-effects-of-noise-pollution.php> / สืบค้นเมื่อ 15 พฤศจิกายน 2560

