Unit 1: The Natural World

ENVIRONMENTAL IMPACTS OF LOGGING

Words

Look for the following words as you read the passage. Match each word with its correct definition.

Words	Definitions
1. aquatic	A. n., the natural world
2. array	B. v., to reach past, get bigger
3. defense[1]	C. n., a large number, a collection
4. deforestation	D. n., loss of soil from action of water or wind
5. environment	E. adj., living in the water
6. erosion	F. adj., living on the land
7. extend	G. v., to cut down
8. fell	H. n., the natural area where a plant or animal lives
9. habitat	I. n., a strong effect
10. impact	J. n., protection
11. inhibit	K. v., to prevent, slow down
12. intercept	L. n., plants
13. logging	M. n., the removal of all trees from a large area
14. myriad	N. n., the cutting down of trees for commercial purposes
15. nutrient	O. v., to disappear
16. pollution	P. adj., many, numerous
17. stabilize[2]	Q. n., damage to air, water, etc.
18. terrestrial	R. v., to keep from changing, maintain
19. vanish	S. v., to catch
20. vegetation	T. n., food

[1]BrE: defence
[2]BrE: stabilise

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Reading

Environmental Impacts of Logging

A

From shipping crates to paper bags, the logging industry supplies the raw materials for an array of products. However, this is not without untold harm to the environment. The damage includes habitat loss, pollution, and climate change, with the effects spanning the globe from the rain forests of Central Africa, Southeast Asia, and South America to the northern forests of Canada and Scandinavia. The effects of logging extend beyond just the felling of a swath of trees. Nutrients, water, and shelter for plants, animals, and microorganisms throughout the ecosystem are also lost; many life forms—both terrestrial and aquatic—are becoming endangered as forests vanish.

B

Trees protect the soil beneath them; thus, tree loss can affect soil integrity. For example, the rain forest floor, home to myriad plant life as well as insects, worms, reptiles and amphibians, and small mammals, relies on a dense canopy of branches and leaves to keep it healthy and intact. The canopy prevents surface runoff by intercepting heavy rainfall so that water can drip down slowly onto the porous earth. Tree roots also stabilize the soil and help prevent erosion. In return, a healthy soil encourages root development and microbial activity, which contribute to tree growth and well-being. A major factor in logging-related soil damage comes from road building, with trucks and other heavy equipment compressing the spongy soil, creating furrows where water collects, and disrupting the underground water flow. Eventually, the topsoil wears away, leaving behind an infertile layer of rocks and hard clay.

C

Logging can also damage aquatic habitats. Vegetation along rivers and stream banks helps maintain a steady water flow by blocking the entry of soil and other residue, and tree shade inhibits the growth of algae. Removing trees obliterates these benefits. When eroding soil flows into waterways, the organic matter within it consumes more oxygen, which can lead to oxygen depletion in the water, killing fish and other aquatic wildlife.

D

Trees provide a natural defense against air pollution. They remove carbon dioxide from the atmosphere while they emit oxygen, and their leaves filter pollutants from the air. Cutting down trees keeps pollutants

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airborne, where they can mix with water vapor[1] and form acid rain. Water quality in nearby streams and rivers also deteriorates as tree loss contributes to increased sedimentation.

E

In a healthy forest ecosystem, trees draw moisture from the soil and release it into the atmosphere while they provide shade to lessen evaporation. Thus, deforestation impacts rainfall patterns, leading to flooding as well as drought and forest fires. Deforestation is responsible for about one-fifth of carbon dioxide emissions worldwide, making it a major contributor to climate change—in particular, global warming. In the Amazon basin alone, deforestation is responsible for millions of tons of carbon dioxide being released into the atmosphere annually. Some logging companies burn large tracts of forest just to facilitate access to one area—a practice[2] that discharges even more carbon dioxide.

F

Forests, especially the tropical rain forests, are a vital natural resource with extensive biodiversity and irreplaceable wildlife habitats. More responsible logging practices would help ensure that they are protected for future generations.

Answer the questions about **Environmental Impacts of Logging**.

Questions 1–4

The reading passage contains six paragraphs, ***A–F****.*
Which paragraphs discuss the following information?
Write the correct letter, ***A–F****.*

_____ 1. The impact of logging on the weather

_____ 2. How trees inhibit soil erosion

_____ 3. How deforestation contributes to air pollution

_____ 4. The impact of erosion on fish

[1]BrE: vapour
[2]BrE: practice *n.*, practise *v.*

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Questions 5–8

Complete the summary using words from the list below.

The logging industry **5**..... trees to get the wood that is used to make many products. This practice has **6**..... effects on the environment. The natural **7**..... of many terrestrial and aquatic animals are damaged. Trees protect the environment in many ways. They are an effective **8**..... against both air pollution and soil erosion.

aquatic	defense	habitats	myriad
arrays	fells	intercepts	vegetation

My Words

Write the words that are new to you. Look them up in the dictionary and write their definitions.

Words	Definitions
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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