

BENEATH THE CANOPY

1. The world's tropical rainforests comprise some 6% of the Earth's land area and contain more than half of all known life forms, or a conservative estimate of about 30 million species of plants and animals. Some experts estimate there could be two or even three times as many species hidden within these complex and fast-disappearing ecosystems, scientists will probably never know for certain, so vast is the amount of study required.

2. Time is running out for biological research. Commercial development is responsible for the loss of about 17 million hectares of virgin rainforest each year - a figure approximating 1% of what remains of the world's rainforests.

3. The current devastation of once impenetrable rainforest is of particular concern because, although new tree growth may in time repopulate felled areas, the biologically diverse storehouse of flora and fauna is gone forever. Losing this bountiful inheritance, which took millions of years to reach its present highly evolved state,

would be an unparalleled act of human stupidity.

4. Chemical compounds that might be extracted from yet-to-be-discovered species hidden beneath the tree canopy could assist in the treatment of disease or help to control fertility. Conservationists point out that important medical discoveries have already been made from material found in tropical rainforests. The drug aspirin, now synthesised, was originally found in the bark of a rainforest tree. Two of the most potent anti- cancer drugs derive from the rosy periwinkle discovered in the 1950s in the tropical rainforests of Madagascar.

5. The rewards of discovery are potentially enormous, yet the outlook is bleak. Timber-rich countries mired in debt, view potential financial gain decades into the

future as less attractive than short-term profit from logging. Cataloguing species and analysing newly-found substances takes time and money, both of which are in short supply.

6. The developed world takes every opportunity to lecture countries which are the guardians of rainforest . Rich nations exhort them to preserve and care for what is left, ignoring the fact that their wealth was in large part due to the exploitation of their own natural world.

7. It is often forgotten that forests once covered most of Europe. Large tracts of forest were destroyed over the centuries for the same reason that the remaining rainforests are now being felled - timber. As well as providing material for housing, it enabled wealthy nations to build large navies and shipping fleets with which to continue their plunder of the world's resources.

8. Besides, it is not clear that developing countries would necessarily benefit financially from extended bioprospecting of their rainforests. Pharmaceutical companies make huge profits from the sale of drugs with little return to the country in which an original discovery was made.

9. Also, cataloguing tropical biodiversity involves much more than a search for medically useful and therefore commercially viable drugs. Painstaking biological fieldwork helps to build immense databases of genetic, chemical and behavioural information that will be of benefit only to those countries developed enough to use them.

10. Reckless logging itself is not the only danger to rainforests. Fires lit to clear land for further logging and for housing and agricultural development played havoc in the late 1990s in the forests of Borneo. Massive clouds of smoke from burning forest fires swept across the southernmost countries of South-East Asia

choking cities and reminding even the most resolute advocates of rainforest clearing of the swiftness of nature's retribution.

11. Nor are the dangers entirely to the rainforests themselves. Until very recently, so-called "lost" tribes - indigenous peoples who have had no contact with the outside world - still existed deep within certain rainforests. It is now unlikely that there are any more truly lost tribes. Contact with the modern world inevitably brings with it exploitation, loss of traditional culture, and, in an alarming number of instances, complete obliteration.

12. Forest-dwellers who have managed to live in harmony with their environment have much to teach us of life beneath the tree canopy. If we do not listen, the impact will be on the entire human race. Loss of biodiversity, coupled with climate change and ecological destruction will have profound and lasting consequences.

Questions 16-20

You are advised to spend about 8 minutes on Questions 16-20.

Refer to Reading Passage 15 "Beneath the Canopy" and answer the following questions. The left-hand column contains quotations taken directly from the reading passage. The right-hand column contains explanations of those quotations. Match each quotation with the correct explanation. Select from the choices A - F below and write your answers in boxes 16 - 20 on your Answer Sheet.

Example: ' a conservative estimate'

.....B.....

Quotation	Explanation
<p>Ex: 'a conservative estimate' (paragraph 1)</p> <p>16. 'biologically diverse storehouse of flora and fauna' (paragraph 3)</p> <p>17. 'timber-rich countries mired in debt' (paragraph 5)</p> <p>18. 'exploitation of their own natural world' (paragraph 6)</p> <p>19. 'benefit financially from extended bioprospecting of their rainforests' (paragraph 8)</p> <p>20. 'loss of biodiversity' (paragraph 12)</p>	<p>A. with many trees but few financial resources</p> <p>B. purposely low and cautious reckoning</p> <p>C. large-scale use of plant and wildlife</p> <p>D. profit from an analysis of the plant and animal life</p> <p>E. wealth of plants and animals</p> <p>F. being less rich in natural wealth</p>

Questions 21-23

You are advised to spend about 5 minutes on Questions 21-23. Refer to Reading Passage 2, and look at Questions 21-23 below. Write your answers in boxes 21 - 23 on your Answer Sheet.

Q21. How many medical drug discoveries does the article mention?

Q22. What two shortages are given as the reason for the writer's pessimistic outlook?

Q23. Who will most likely benefit from the bioprospecting of developing countries' rainforests?

Questions 24-26

You are advised to spend about 7 minutes on Questions 24-26. Refer to Reading Passage 15, and decide which of the answers best completes the sentences.

Write your answers in boxes 24-26 on your Answer Sheet.

Q 24. The amount of rainforest destroyed annually is:

- a) approximately 6% of the Earth's land area**
- b) such that it will only take 100 years to lose all the forests**
- c) increasing at an alarming rate**
- d) responsible for commercial development**

Q 25. In Borneo in the late 1990s:

- a) burning forest fires caused air pollution problems as far away as Europe**
- b) reckless logging resulted from burning forest fires**
- c) fires were lit to play the game of havoc**
- d) none of the above**

Q 26. Many so-called "lost" tribes of certain rainforests:

- a) have been destroyed by contact with the modern world**
- b) do not know how to exploit the rainforest without causing harm to the environment**
- c) are still lost inside the rainforest**
- d) must listen or they will impact on the entire human race.**

ANSWER
<p>16. E 17. A 18. C 19. D 20. F 21. 3 22. time (and) money 23. pharmaceutical companies / developed countries 24. b 25. d 26. a</p>