READING PASSAGE 1

The Truth about the Environment

For many environmentalists, the world seems to be getting worse. They have developed a hit-list of our main fears: that natural resources are running out, that the population is ever growing, leaving less and less to eat, that species are becoming extinct in vast numbers, and that the planet's air and water are becoming ever more polluted.

But a quick look at the facts shows a different picture. First, energy and other natural resources have become more abundant, not less so, since the book 'The Limits to Growth' was published in 1972 by a group of scientists. Second, more food is now produced per head of the world's population than at any time in history. Fewer people are starving. Third, although species are indeed becoming extinct, only about 0.7% of them are expelled to disappear in the next 50 years, not 25-50%, as has so often been predicted. And finally, most forms of environmental pollution either appear to have been exaggerated, or are transient - associated with the early phases of industrialisation and therefore best cured not by restricting economic growth, but by accelerating it. One form of pollution - the release of greenhouse gases that causes global warming - does appear to be a phenomenon that is going to extend well into our future, but its total impact is unlikely to pose a devastating problem. A bigger problem may well turn out to be an inappropriate response to it.

Yet opinion polls suggest that many people nurture the belief that environmental standards are declining and four factors seem to cause this disjunction between perception and reality.

One is the lopsidedness built into scientific research. Scientific funding goes mainly to areas with many problems. That may be wise policy but it will also create an impression that many more potential problems exist than is the case.

Secondly, environmental groups need to be noticed by the mass media. They also need to keep the money rolling in. Understandably, perhaps, they sometimes overstate their arguments. In 1997, for example, the World Wide Fund for Nature issued a press release entitled: 'Two-thirds of the world's

forests lost forever'. The truth turns out to be nearer 20%.

Though these groups are run overwhelmingly by selfless folk, they nevertheless share many of the characteristics of other lobby groups. That would matter less if people applied the same degree of skepticism to environmental lobbying as they do to lobby groups in other fields. A trade organisation arguing for, say, weaker pollution control is instantly seen as self-interested. Yet a green organisation opposing such a weakening is seen as altruistic, even if an impartial view of the controls in question might suggest they are doing more harm than good.

A third source of confusion is the attitude of the media. People are dearly more curious about bad news than good. Newspapers and broadcasters are there to provide what the public wants: That, however, can lead to significant distortions of perception. An example was America's encounter with EI Nino in 1997 and 1998. This climatic phenomenon was accused of wrecking tourism, causing allergies, melting the ski-slopes, and causing 22 deaths. However, according to an article in the Bulletin of the American Meteorological Society, the damage it did was estimated at US$4 billion but the benefits amounted to some US$19 billion. These came from higher winter temperatures (which saved an estimated 850 lives, reduced heating costs and diminished spring floods caused by melt waters).

The fourth factor is poor individual perception. People worry that the endless rise in the amount of stuff everyone throws away will cause the world to run out of places to dispose of waste. Yet, even if America's trash output continues to rise as it has done in the past, and even if the American population doubles by 2100, all the rubbish America produces through the entire 21st century will still take up only one-12,000th of the area of the entire United States.

So what of global warming? As we know, carbon dioxide emissions are causing the planet to warm. The best estimates are that the temperatures will rise by 2-3°C in this century, causing considerable problems, at a total cost of US$5,000 billion.

Despite the intuition that something drastic needs to be done about such a costly problem, economic analyses dearly show it will be far more expensive to cut carbon dioxide emissions radically than to

pay the costs of adaptation to the increased temperatures. A model by one of the main authors of the United Nations Climate Change Panel shows how an expected temperature increase of 2.1 degrees in 2100 would only be diminished to an increase of 1.9 degrees. Or to put it another way, the temperature increase that the planet would have experienced in 2094 would be postponed to 2100. So this does not prevent global warming, but merely buys the world six years. Yet the cost of reducing carbon dioxide emissions, for the United States alone, will be higher than the cost of solving the world's single, most pressing health problem: providing universal access to clean drinking water and sanitation. Such measures would avoid 2 million deaths every year, and prevent half a billion people from becoming seriously ill.

It is crucial that we look at the facts if we want to make the best possible decisions for the future. It may be costly to be overly optimistic - but more costly still to be too pessimistic.

Questions 1-6

Do the following statements agree with the information? In boxes 1-6 on your answer sheet, write:

YES if the statement agrees with the writer's claims

NO if the statement contradicts the writer's claims

NOT GIVEN if it is impossible to say what the writer thinks about this

1. Environmentalists take a pessimistic view of the world for a number of reasons.

2. Data on the Earth's natural resources has only been collected since 1972.

3. The number of starving people in the world has increased in recent years.

4. Extinct species are being replaced by new species.

5. Some pollution problems have been correctly linked to industrialisation.

6. It would be best to attempt to slow down economic growth.

Questions 7-10

Choose the correct letter, A, B, C or D.

Write your answers in boxes 7-10 on your answer sheet.

7. The writer quotes from the Worldwide Fund for Nature to illustrate how

A. influential the mass media can be.

B. effective environmental groups can be.

C. the mass media can help groups raise funds.

D. environmental groups can exaggerate their claims.

8. What is the writer's main point about lobby groups in paragraph 6?

A. Some are more active than others.

B. Some are better organised than others.

C. Some receive more criticism than others.

D. Some support more important issues than others.

9. The writer suggests that newspapers print items that are intended to

A. educate readers.

B. meet their readers' expectations.

C. encourage feedback from readers.

D. mislead readers.

10. What does the writer say about America's waste problem?

A. It will increase in line with population growth.

B. It is not as important as we have been led to believe.

C. It has been reduced through public awareness of the issues.

D. It is only significant in certain areas of the country.

Questions 11-13

Complete the summary with the list of words A-I below.

Write the correct letter A-I in boxes 11-13 on your answer sheet.

GLOBAL WARMING

The writer admits that global warming is a 11 ..... challenge, but says that it will not have a catastrophic impact on our future if we deal with it in the 12 ..... way. If we try to

reduce the levels of greenhouse gases, he believes that it would only have a minimal impact on rising temperatures. He feels it would be better to spend money on the more 13 ..... health problem of providing the world's population with clean drinking water.

A unrealistic	B agreed	C expensive	D right
E long-term	F usual	G surprising	H personal
I urgent			

READING PASSAGE 2

Inside the mind of the consumer

Could brain-scanning technology provide an accurate way to assess the appeal of new products and the effectiveness of advertising?

A

Marketing people are no longer prepared to take your word for it that you favour one product over another. They want to scan your brain to see which one you really prefer. Using the tools of neuroscientists, such as electroencephalogram (EEG) mapping and functional magnetic-resonance imaging (fMRI), they are trying to learn more about the mental processes behind purchasing decisions. The resulting fusion of neuroscience and marketing is inevitably, being called 'neuromarketing'.

B

The first person to apply brain-imaging technology in this way was Gerry Zaltman of Harvard University, in the late 1990s. The idea remained in obscurity until 2001, when BrightHouse, a marketing consultancy based in Atlanta, Georgia, set up a dedicated neuromarketing arm, BrightHouse Neurostrategies Group. (BrightHouse lists Coca-Cola, Delta Airlines and Home Depot among its clients.) But the company's name may itself simply be an example of clever marketing. BrightHouse does not scan people while showing them specific products or campaign ideas, but bases its work on the results of more general f MRI -based research into consumer preferences and

decision-making carried out at Emory University in Atlanta.

C

Can brain scanning really be applied to marketing? The basic principle is not that different from focus groups and other traditional forms of market research. A volunteer lies in an f MRI machine and is shown images or video clips. In place of an interview or questionnaire, the subject's response is evaluated by monitoring brain activity. f MRI provides real-time images of brain activity, in which different areas "light up" depending on the level of blood flow. This provides clues to the subject's subconscious thought patterns. Neuroscientists know, for example, that the sense of self is associated with an area of the brain known as the medial prefrontal cortex. A flow of blood to that area while the subject is looking at a particular logo suggests that he or she identifies with that brand.

D

At first, it seemed that only companies in Europe were prepared to admit that they used neuromarketing. Two carmakers, DaimlerChrysler in Germany and Ford's European arm, ran pilot studies in 2003. But more recently, American companies have become more open about their use of neuromarketing. Lieberman Research Worldwide, a marketing firm based in Los Angeles, is collaborating with the California Institute of Technology (Caltech) to enable movie studios to market-test film trailers. More controversially, the New York Times recently reported that a political consultancy, FKF Research, has been studying the effectiveness of campaign commercials using neuromarketing techniques.

E

Whether all this is any more than a modern-day version of phrenology, the Victorian obsession with linking lumps and bumps in the skull to personality traits, is unclear. There have been no large-scale studies, so scans of a handful of subjects may not be a reliable guide to consumer behaviour in general. Of course, focus groups and surveys are flawed too: strong personalities can steer the outcomes of focus groups, and people do not always tell opinion pollsters the truth. And even

honest people cannot always explain their preferences.

F

That is perhaps where neuromarketing has the most potential. When asked about cola drinks, most people claim to have a favourite brand, but cannot say why they prefer that brand's taste. An unpublished study of attitudes towards two well- known cola drinks. Brand A and Brand 13. carried out last year in a college of medicine in the US found that most subjects preferred Brand B in a blind tasting fMRI scanning showed that drinking Brand B lit up a region called the ventral putamen, which is one of the brain s 'reward centres', far more brightly than Brand A. But when told which drink was which, most subjects said they preferred Brand A, which suggests that its stronger brand outweighs the more pleasant taste of the other drink.

G

"People form many unconscious attitudes that are obviously beyond traditional methods that utilise introspection," says Steven Quartz, a neuroscientist at Caltech who is collaborating with Lieberman Research. With over $100 billion spent each year on marketing in America alone, any firm that can more accurately analyse how customers respond to products, brands and advertising could make a fortune.

H

Consumer advocates are wary. Gary Ruskin of Commercial Alert, a lobby group, thinks existing marketing techniques are powerful enough. "Already, marketing is deeply implicated in many serious pathologies," he says. "That is especially true of children, who are suffering from an epidemic of marketing- related diseases, including obesity and type-2 diabetes. Neuromarketing is a tool to amplify these trends."

I

Dr Quartz counters that neuromarketing techniques could equally be used for benign purposes. "There are ways to utilise these technologies to create more responsible advertising," he says. Brain-scanning could, for example, be used to determine when people are capable of making free

choices, to ensure that advertising falls within those bounds.

J

Another worry is that brain-scanning is an invasion of privacy and that information on the preferences of specific individuals will be misused. But neuromarketing studies rely on small numbers of volunteer subjects, so that seems implausible. Critics also object to the use of medical equipment for frivolous rather than medical purposes. But as Tim Ambler, a neuromarketing researcher at the London Business School, says: 'A tool is a tool, and if the owner of the tool gets a decent rent for hiring it out, then that subsidises the cost of the equipment, and everybody wins.' Perhaps more brain-scanning will some day explain why some people like the idea of neuromarketing, but others do not.

Questions 14-19

Reading Passage 274 has ten paragraphs A-J

Choose the correct heading for Paragraphs B-G from the list of headings below.

Write the correct number (i-x) in boxes 14-19 on your answer sheet.

List of headings

i A description of the procedure

ii Marketing an alternative name

iii A potentially profitable line of research

iv An international research project

v Medical dangers of the technique

vi An experiment to investigate consumer responses

vii A misleading name

viii Broadening applications

ix Drawbacks to marketing tools

x What is neuromarketing?

Example: Paragraph A X

14. Paragraph B

15. Paragraph C

16. Paragraph D

17. Paragraph E

18. Paragraph F

19. Paragraph G

Questions 20-22

Look at the following people (Questions 20-22) and the list of opinions below.

Match each person with the opinion credited to him.

Write the correct letter A-F in boxes 20-22 on your answer sheet.

20. Steven Quartz

21. Gary Ruskin

22. Tim Ambler

List of opinions

A. Neuromarketing could be used to prevent the exploitation of consumers.

B. Neuromarketing could lead to the misuse of medical equipment.

C. Neuromarketing could be a means of treating medical problems.

D. Neuromarketing could make an existing problem worse.

E. Neuromarketing could use introspection as a tool in marketing research.

F. Neuromarketing could be used lo contribute towards the cost of medical technology.

Questions 23-26

Complete the summary below using words from the passage.

Choose ONE WORD ONLY from the passage for each answer.

Write your answers in boxes 23-26 on your answer sheet.