



环境 英语文选

ENVIRONMENT ENGLISH READING

刘 福 王彦彬 编著

中国环境科学出版社

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1995

(京) 新登字 089 字

内 容 简 介

环境英语文选从内容上受本学科性质的影响,是多学科综合文集。涉及的学科范围极为广泛,有数、理、化、天、地、生六大基础科学的内容,也有 20 世纪最新发展起来的新型边缘学科的内容。并收集了国际上最新的有关公约。文章编辑过程中遵循原著文体及地道的表达。每篇文章都有词法、句法、文法的难点解析,并注意收集不同文风,不同表达方式的范例。是提高英语水平的参考读本。

该书适合具有初级以上英语程度的有关人员阅读。

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环境英语文选

刘福 王彦彬 主编

责任编辑 夏伟松

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中国环境科学出版社出版

北京崇文区北岗子街 8 号

北京市顺义县板桥印刷厂印刷

新华书店总店北京科技发行所发行 各地新华书店经售

*

1993 年 11 月第 一 版 开本 850×1168 1/32

1993 年 11 月第一次印刷 印张 13⁵/₈

印数 1—5,000 字数 365 千字

ISBN 7-80093-182-X/X·692

定价: 11.50 元

前 言

联合国环境与发展大会在巴西隆重召开之后，环境问题更加严肃而迫切地摆在世界各国人民面前，环境领域的国际交流与合作也更加活跃与热烈。我国在经济腾飞的同时，环境保护事业正蓬勃发展，环境外交频繁而卓有成效，环境方面的国际合作，地区合作与双边合作接踵而来，各种国际环境会议和环境条约的谈判与日俱增，环境方面的文献资料和书刊杂志更是如雨后春笋般地不断涌现。在此形势下，要进一步发展我国的环保事业，环境外语是必须克服的一大障碍，而英语目前已是众所公认的国际通用语言。为满足这种客观形势的需要，我们完成了这本《环境英语文选》。

该书具有以下几个特点：(1) 内容范围广：即有环境工程、环境生物、环境化学和环境物理等各个学科的内容，又有环境管理、环境战略、环境条约等不同领域的文章；(2) 文献价值高：收集不少经典性的环境历史文献，如“人类环境宣言”“只有一个地球”、“寂静的春天”、“北京宣言”、“国家环境报告等”；(3) 材料新颖：如刚刚开过的巴西环发大会的有关文件、当前人们所瞩目的温室效应、臭氧层破坏、酸雨等重大环境问题都有所反映。

《环境英语文选》即可以作为我国落实环发大会精神大合唱中的一个音符，又可以作面我国环保事业百花园中新绽开的一朵小花。希望这本书能够在我国的环保事业中发挥她应有的作用。也希望这本书本身也随着这个事业的发展而更加丰富和完善。

在文章的选择、编排的顺序、生词和词组的注释以及范句的翻译和注解等许多方面我们做了一些工作，也可能有不妥之处，敬请各位专家和广大读者不吝指正。

编者 1993 年 4 月于秦皇岛

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1 Pollution

Every organism produces waste products which are no longer useful to itself and which, if allowed to accumulate, would in fact be harmful. In every case, though, the waste products are of use to other forms of life, which often restore them to a form useful to the original waste-producer.

Thus all animals make use of oxygen in air, or dissolved in water, combining it with the carbon in foodstuffs, and excreting carbon dioxide as a waste product. No animal can live in an atmosphere with too great a carbon dioxide content. Plant life, however, can utilize carbon dioxide and, using the energy of sunlight, build it up to foodstuffs again, excreting oxygen as a waste product. Of course, animals can make use of the oxygen again.

In this way there is an oxygen-carbon dioxide cycle, and through the activities of both plants and animals both oxygen and carbon dioxide remain in a constant concentration in the atmosphere. There is also a nitrogen cycle, a water cycle and so on.

For millions of years such cycles have remained more or less in balance, but man's coming has made a difference. Human agriculture upset the balance in some ways, but with the coming of man's industrial civilization the upset became truly dangerous. Wastes are produced in quantities so great that other forms of life can't handle them quickly enough. Some wastes, such as non-rusting metals, plastics and so on can't be restored to circulation at all. Some wastes are actively poisonous.

Wastes which cannot be comfortably cycled or which are actively poisonous are pollution, a well-known English word from a Latin one

meaning to render thoroughly filthy. As the 1970s opened the new application of this old word came to stand for a growing threat to mankind. Now various measures are being taken to solve the pollution problem. Nearly all of the highly industrialized countries throughout the world are moving vigorously to prevent pollution.

WORD LIST

organism	[ˈɔ:gənizəm] <i>n.</i>	生物体, 有机体
accumulate	[əˈkju:mjuleit] <i>vt.</i>	积累
dissolve	[diˈzɒlv] <i>vt.</i>	溶解
foodstuff	[ˈfudstʌf] <i>n.</i>	食料, 粮食
excret	[iksˈkri:t] <i>v</i>	排泄
atmosphere	[ˈætməsfiə] <i>n.</i>	大气 (层), 大气
utilize	[ˈju:tilaiz] <i>vt.</i>	利用
constant	[ˈkɒnstənt] <i>a.</i>	恒定的, 一定的
agriculture	[ˈæɡrikʌltʃə] <i>n.</i>	农业
non-rusting	[ˈnɒn, rʌstiŋ] <i>a.</i>	不锈钢的
circulation	[ˌsə:kjuˈleifən] <i>n.</i>	循环
render	[ˈrendə] <i>vt.</i>	使得
filthy	[ˈfilθi] <i>a.</i>	不洁的, 污秽的
vigorously	[ˈvigorəsli] <i>ad.</i>	有利地, 使劲地

PHRASES AND EXPRESSIONS

in fact	实际上
in every case	无论如何
to make use of	利用
more or less	或多或少
in quantities	大量地
to stand for	代表

NOTES TO THE TEXT

1. Every organism produces waste products which are no longer useful to itself and which, if allowed to accumulate, would in fact be harmful. 每一种有机物都产生对它自己不再有用的废物, 这种废物如果任其积累起来的话, 实际上是有害的。

这里第二个 which 所引导的定语从句所述的内容与事实相反, 动词用虚拟语气。两个 which 的先行词都是 products。

2. In every case, though, the waste products are of use to other forms of life, which often restore them to a form useful to the original waste-producer. 然而在每一种情况下, 废物对于其他形式的生命来说是有用的。后者常把废物恢复到一种对最初产生废物者有用的形式。

这里的 though 是副词, 意为“然而”。

3. ...man's coming 是动名词, man's 是它的逻辑主词。动名词的逻辑主语也可用物主代词, 如: He insisted on your attending the meeting. 他坚持要你参加会议。

2 Air Pollution

A great deal of energy is needed to run the factories of modern industrial nations. Automobiles, trains, planes and buses need energy, too. Nearly all of this energy is produced in the same way——by burning fuels. The burning produces wastes. Some of the wastes get into the air, causing air pollution.

Government officials in the United States estimate that 200 million tons of these wastes enter the air each year——1 ton for each person in the country!

A curtain of smog often hangs over big cities. It irritates the eyes

and chests. The word 'smog' is a combination of the words 'smoke' and 'fog', but 'smog' itself is a mixture of many more ingredients. It begins with some of the pollution from burning; carbon monoxide, and oxides of nitrogen and sulfur are among them. Some of the pollutants react with one another to form new irritating substances. Energy is needed for the reactions, and it is supplied by the light of the sun. The resulting mixture is photochemical smog. ('photo' means light.) It can be deadly.

In London, Tokyo, New York and other cities, a weather condition called a temperature inversion allows smog to hang over the city for several days at a time. Many people become ill, and the death rate among elderly people and people with lung disorders climbs rapidly.

At least half of the pollutants in the air come from the engines of motor vehicles. As they burn fuel, they give off carbon monoxide as a waste. Carbon monoxide is a colorless, odorless gas, and a deadly poison. The amount of carbon monoxide that an engine gives off can be reduced by special devices designed to make the engine burn the fuel more efficiently.

Automobile manufacturers are working on experimental cars run by electricity or other means that will reduce pollution. City governments in various parts of the world have begun to close certain streets to automobile traffic, hoping to lower pollution levels. Many city planners believe that cities, or at least their central areas, should be kept free of automobiles.

Motor vehicles are not the only air polluters. Coal and oil, used to heat homes and factories and to generate electricity, contain small amounts of sulfur. When the fuels are burned, sulfur dioxide, a poisonous gas, is produced. It is irritating to the lungs. Some cities have passed laws that allow coal and oil to be burned only if their sulfur content is low.

Most electricity is generated by steam turbines. About half of the

sulfur dioxide in the air comes from burning fuel to make steam. Nuclear power plants do not burn fuel, so there is no air pollution of the ordinary kind. But the radioactive materials in these plants could present a danger in an accident. Also, there is a problem in disposing of the radioactive wastes in a way that will not endanger the environment.

Another type of pollution, called thermal (heat) pollution, is caused by both the fuel-burning and nuclear plants. Both need huge amounts of cold water, which is warmed as it cools the steam. When it is returned to the river, the warm water may stimulate the growth of weeds. It may also kill fish and their eggs, or interfere with their growth.

Physicists are studying new ways of generating electricity that may be less damaging to the environment. In the meantime, many power plants are being modernized to give off less polluting material. Also, engineers try to design and locate new power plants to do minimum damage to the environment.

WORD LIST

fuel	[ˈfjuəl] <i>n.</i>	燃料
estimate	[ˈestəˈmeɪt] <i>vt.</i>	估计
irritate	[ˈɪrɪteɪt] <i>vt.</i>	激怒, 刺激
ingredient	[ɪnˈɡrɪdiənt] <i>n.</i>	组成部分, 成分
monoxide	[məˈnɒksaɪd] <i>n.</i>	一氧化物
photochemical	[ˈfəʊtəʊˈkemɪkəl] <i>a.</i>	光化学的
pollutant	[pəˈlʊtənt] <i>n.</i>	污染物
odorless	[ˈɒdələs] <i>a.</i>	无味的
generate	[ˈdʒenəreɪt] <i>vt.</i>	生成
poisonous	[ˈpɔɪz (ə) nəʃ] <i>a.</i>	有毒的
turbine	[ˈtɜːbɪn] <i>n.</i>	涡轮机
radioactive	[ˈreɪdiəʊˈæktɪv] <i>a.</i>	放射性的
thermal	[ˈθɜːməl] <i>a.</i>	热(力)的

stimulate	['stimjuleit] vt.	刺激, 促进
minimum	['miniməm] n.	最小值, 最低限度

PHRASES AND EXPRESSTONS

to give off	排放, 散发
at least	最低, 最少
to interfere with	阻碍, 干涉
in the mean time	同时
to dispose of	处理, 丢弃
a great deal of	大量的

NOTES TO THE TEXT

1. Automobile manufacturers are working on experimental cars run by electricity or other means that will reduce polluteion. 汽车制造商们正在研制一种试验性小汽车, 这种小汽车用电或其他产生较少污染的能量来驱动。

run 是个过去分词, 作定语修饰 cars, 表示“驱动”, “开动”的意思。run 既可以表示由人开动; Tom ran the car downhill 汤姆把车往山下开去; 也可表示由某种动力, 能源来驱动: Electricity runs this car 这辆汽车由电驱动。

2. Many city planners believe that cities, or at least their central areas, should be kept free of automobiles. 许多城市规划者认为, 在市内, 至少在市中心应当禁止汽车通行。

句中...should be kept free of automobiles 在意义上相当于...should be closed to automobile traffic, 即禁止汽车通行或进入的意思。keep...free of...意思是“使某物或某地不受某物侵扰”。

3 Don't Buy These Environmental Myths

A consumer's guide to "green" advice

in recent years, numerous groups have offered counsel on how to be "good environmentalists." Although well-intentioned, the advice is too often based on little more than uncritical acceptance of such core beliefs as "recycling is good." From the perspective of the total environment, the advice is frequently wrong. Those who follow it may actually end up harming the environment more than if they were to ignore it altogether.

Here are five common myths:

Packaging is bad

This idea is now widely accepted by consumers who are concerned about the environment. But it's not necessarily true. Packaging can actually prevent certain kinds of waste.

When food is processed and packaged in the United States, for example, byproducts such as rinds and peels are often used as fuel, animal feed or in another economically useful or in another economically useful way. By contrast, in Mexico, where packaging is less prevalent, such food byproducts become garbage. Compared with the United States, the average Mexican household throws away three times more food debris—1.6 pounds per household per day, according to a University of Arizona study.

Food packaging also reduces spoilage. The complex layering of metals and plastics that helps keep some snacks fresh for up to six months, for example, lets the company distribute them without having a plant in every city. Such packaging meets consumer needs and economizes on the use of resources.

Recycling is always good

In principle, most waste products—iron and steel, aluminum, glass, paper and even tires—can be recycled.

But would universal recycling necessarily be better for the environment? The answer is no.

Recycling has environmental side effects. Curbside garbage-recycling programs often require more collection trucks—which means more fuel consumption and more air pollution. Some recycling programs use large amounts of energy and produce high volumes of water waste. Distant recycling facilities often necessitate considerable resources just to transport the stuff there.

Take paper recycling. Proponents argue that every ton of recycled newsprint saves 17 trees. But most of the trees used to make paper are planted explicitly for manufacturing paper. Less paper from virgin pulp means fewer trees planted by commercial harvesters. According to a study by resources for the future, a nonpartisan research organization in Washington, D. C., the net effect of universal paper recycling could actually be a decline in tree planting and tree coverage, as lands are converted to other uses.

Nonbiodegradable products are bad

Consumers have been told: anything that decomposes naturally is good, and anything that does not is bad. But most modern landfills are capped, inhibiting biodegradation of anything.

Biodegradable products, if disposed of improperly, can leach dangerous chemicals into the water supply. Nonbiodegradable products, for the most part, do not have this problem.

Disposables are bad

Here are two examples of what's wrong with this statement. Some environmentalists have targeted juice boxes because they contribute to waste. But transporting empty glass bottles requires more trucks than transporting empty boxes, using more fuel and causing more air pollution. And aseptic packages don't need refrigeration, saving energy.

Disposable diapers are also denounced as wasteful. But over its "lifetime," a cloth diaper uses six times more water than a disposable does. This matters a lot in areas where water is scarce. Residents there who avoid disposables and wash cloth diapers may not be doing their environment a favor.

Plastics are bad

To most advocates of "green" consumerism, an aluminum container is best, glass second and plastic the worst. However, according to the economic and environmental research organization California Futures, of nonrecycled containers, plastic takes the least energy to manufacture.

Plastics are lighter and more efficient than many other kinds of packaging. A research organization in Germany, Verpacken ohne Kunststoff, examined the effects of eliminating all plastic packaging in that country. It found that energy consumption would almost double and the weight of solid wastes would increase 404 percent.

While we seek to protect the environment, let us take care to look beyond the "simple" rules that may do more harm than good.

WORD LIST

myth	[miθ] n.
spoilage	['spolidʒ] n.

神话
损坏, (食品等的) 腐败