МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ

Курганский государственный университет

Кафедра иностранных языков технических специальностей

АНГЛИЙСКИЙ ЯЗЫК

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LESSON 1

- 1. environment окружающая среда environment protection - защита окружающей среды 3. pollution - загрязнение 4. ecoloav - экология 5. to reach - достигать 6. to pollute - загрязнять 7. to suffer 8. advance 9. to eliminate - устранять, исключать 10. investment - капиталовложение, вклад 11. carry out - проводить, выполнять 12. interaction - взаимодействие 13. growth - poct 14. to change - меняться, изменяться

- страдать, испытывать, претерпевать
- продвижение вперед, успех, прогресс

- 15. renewal
- 16. measure
- возрождение, обновление
- мера

Environment Protection must be Global

That the problem of pollution and ecology has become the most important one for mankind is evident to all. The more civilization is developing, the greater the ecological problems are becoming. Air and water pollution by industry is now reaching tremendous proportions. In our era it is changing from a national to international problem, especially in territories where rivers cross several countries. The seas and oceans are also becoming seriously polluted. A similar situation is developing in the atmosphere. It is known that many cities throughout the world suffer from air pollution.

However, our scientific knowledge and technological advancement make it possible to eliminate it, if people use good will and make considerable investments for that purpose. The development of natural resources on a global scale is already possible from a scientific and technical standpoint². Large-scale experimental work in this area is successfully being carried out.

At present scientists in industrially developed countries are working on the theory of interaction of all the atmospheric and oceanic global processes that determine the climate and weather of the world. Increasing growth of population, industrialization and the use of resources are slowly but surely changing the global climate and water balance. This can be described as a great experiment one that may bring about changes in the environment more serious than ever before.

The essential feature in the environment protection is that many problems can be solved only on the level of world community³. Therefore the planning of protection against pollution by human society as a whole is imperative today and in the nearest future. It is necessary to develop an international program to study

¹ good will – добрая воля

standpoint – точка зрения

³ community - сообщество

data on land, forest, atmospheric and oceanic resources, both renewable and non-renewable. It is the joint efforts of many scientists and special public organizations that can deal with the problem and take necessary measures to protect the environment

It is still a big job and much remains to be done¹. However scientists are confident that planned actions of all countries can eliminate pollution and achieve successes in purifying air, water and soil and in safeguarding natural resources. At the same time one must realize that social and political circumstances may stand in the way of further progress in this field.

- 1. Answer the following questions.
 - 1) What is ecology?
 - 2) How does water become polluted?
 - 3) How does air become polluted?
 - 4) Why is the problem of water pollution becoming a global problem?
 - 5) What theory do scientists work on?
 - 6) What is the essential feature in the environment protection?

2. Определите по суффиксу, к какой части, речи относятся следующие слова: radioactivity, measurement, interaction, society, elimination, basic, proportion, seriously, ecological, organizer.

3. Найдите предложения с глаголом-сказуемым в Present Progressive, переведите.

- 1) Water and air are becoming more polluted.
- 2) At present computers are more wildly used in the sphere of education.
- 3) Where were you at six o'clock? We were studying in the reading-room.
- 4) There are government and public organization that are studying data on the land, the forest and the air.
- 5) New courses of education such as management are being organized in many Universities.
- 6) What will you be doing in the laboratory tomorrow? We shall be watching the operation of a new device.
- 7) Measures are being taken to save Lake Baikal.
- 8) The situation at Lake Baikal is remaining very serious.
- 9) Much attention is being paid at present to the development of international scientific contacts.
- 10) Science is being a leading factor in the progress of mankind.

LESSON 2

- 1. living thing живое существо
- 2. to relate относиться, иметь отношение
- 3. concern забота, беспокойство

 $^{^{1}}$ much remains to be done – еще много предстоит (остается) сделать

- 4. to mean - означать 5. to include - включать 6. to protect - защищать, предохранять 7. littering - засорение - разрушение, уничтожение 8. destruction 9. gift - дар 10. harmful - вредный 11. rav - лүч 12. to destroy
 - разрушать, уничтожить

Environment and Ecology

Ecology is the science of how living things are related to their environment. Many people all over the world are concerned about the ecology today. The word "ecology" came from the Greek which means "home". This idea of "home" includes the whole planet of ours. We must protect our planet from littering, air pollution, water pollution, destruction of natural resources. Practically, it is a science studying whether we, human beings, keep our common house, our planet Earth, in a good state and how we use the gifts it is giving us: water, air, land, plants, animals, and minerals.

Ecology is a science which studies the relationship between all forms of life on our planet with its environment.

They are polluted with all kinds of technological agricultural, chemical, nuclear and other wastes. When air, land, or water becomes dirty, we say it is polluted.

We know that polluted air, land and water are harmful to plants, animals and people. Air pollution, smog, water pollution, destruction of natural resources.

The ozone layer in the upper atmosphere protects the world from the sun's harmful rays. The chemical used widely in aerosol cans, refrigerators, and other products are destroying this precious layer.

If you throw a glass bottle on the ground it will litter the Earth forever. Never throw glass bottles on the ground. You damage the land. Aluminium cans and plastic bottles last up to 500 years. If you throw an aluminium can on the ground, it will still litter the Earth up to 500 years later. Tin cans last 100 years. We must not throw litter on the ground.

Wild plants are being destroyed on a scale never known before. 22 flower species extinct since records began, 317 standing on the brink.

The electric power station burn coal to produce the energy that keeps your light on. That burning coal gives off gases that came the greenhouse effect and acid rain.

1. Answer the following questions:

- 1) What does the word "ecology" mean?
- 2) Is ecology the science of how living things are related to their environment?
- 3) Many people all over the world are concerned about ecology today, aren't they?
- 4) How can we keep our earth clean?

- 5) What pollutes water basins, lakes, rivers, seas, oceans, many land territories and atmosphere?
- 6) What are the names of the environmental problems of today?
- 2. Переведите следующие предложения.
- 1. Загрязненные воздух, земля и вода вредны людям, животным и растениям.
- 2. Ужасный вред причиняют нашему дому испытания ядерного оружия, атомных бомб и аварии на атомных электростанциях.
- 3. Если вы выбросите стеклянную бутылку, вы загрязните землю навсегда.

LESSON 3

1. to poison - отравлять 2. to spread - распространяться 3. disease - болезнь 4. earthquake - землетрясение 5. flood - наводнение 6. danger - опасность 7. uninhabitable - непригодный для жилья (жизни) 8. consumption - потребление 9. deforestation - обезлесение 10. ozone depletion - истощение озонного слоя 11. add rains - кислотные дожди 12. greenhouse effect парниковый эффект 13. fertilizer - удобрение 14. on the brink of extinction - на грани исчезновения 15. waste - ОТХОДЫ 16. species - ВИД 17. to die out - вымирать 18. to become extinct - угасать, вымирать emission 19. to emit - выбрасывать; - выброс 20. harmful substances - вредные вещества 21. disastrous - чудовищный 22. disaster - несчастье, беда 23. threat - угроза 24. to support - поддерживать 25. to avoid - избегать 26. to threaten - угрожать **Environmental Protection**

The poisoning of the world's land, air, and water is the fastest-spreading disease of civilization. It probably produces fewer headlines than wars, earthquakes and floods, but it is potentially one of history's greatest dangers to

human life on earth. It present trends continue for the next several decades, our planet will become uninhabitable.

Overpopulation, pollution and energy consumption have created such planetwide problems as massive deforestation, ozone depletion, acid rains and the global warming that is believed to be caused by the greenhouse effect.

The seas are in danger. They are filled with poison: industrial and nuclear waste, chemical fertilizers and pesticides. The Mediterranean (Средиземное море) is already nearly dead; the North Sea is following. The Aral Sea is on the brink of extinction. If nothing is done about it, one day nothing will be able to live in the seas.

Every ten minutes one kind of animal, plant or insect dies out for ever. If nothing is done about it one million species that are alive today will have become extinct twenty years from now.

Air pollution is a very serious problem. In Cairo (Kaup) just the air is life threatening – equivalent to smoking two packs of cigarettes a day. The same holds for Mexico City and 600 cities of the former Soviet Union.

Industrial enterprises emit tons of harmful substances. These emissions have disastrous consequences for our planet. They are the main reason for the greenhouse effect and acid rains.

An even greater environmental threat are nuclear power stations. We all know how tragic the consequences of the Chernobyl disaster are.

People are beginning to realize that environmental problems are not somebody else's. They join and support various international organisations and green parties. If governments wake up to what is happening – perhaps we'll be able to avoid the disaster that threatens the natural world and all of us with it.

- 1. Answer the following questions.
 - 1) What is the fastest-spreading disease of civilization?
 - 2) What planet-wide problems have overpopulation, pollution and energy consumption created?
 - 3) What will happen to our planet if present trends continue?
 - 4) What is happening to the seas and rivers?
 - 5) The Aral Sea is on the brink of extinction. Do you think it is possible to save it?
 - 6) A lot of animals are dying out. But people wear fur coats, crocodile handbags, leather shoes, etc. Are you for or against hunting?
 - 7) Is air pollution a serious problem? Why?
 - 8) What were the tragic consequences of the Chernobyl disaster?
 - 9) Are nuclear power stations dangerous?
 - 10) What is the main cause of the greenhouse effect and acid rains?
 - 11) What do people of different countries do to save our planet?
 - 12) Have you heard of Greenpeace?

Обсудите проблемы в группе.

a) Imagine that you are participating in one of the seminars on environmental problems.

Prepare a short report on some of the ways to deal with pollution in your country (city), village (region). The rest of the group will ask questions.

b) Environmental problems are becoming political problems. Would you yourself be willing to enter politics to exert influence in environmental affairs? Give reasons for and against.

LESSON 4

- 1. source
- ИСТОЧНИК
- 2. interference 3. to increase
- вмешательство
 - возрастать, увеличивать

- СЛУЧАТЬСЯ, ПРОИСХОДИТЬ

- 4. to breathe - дышать - нарушать
- 5. to upset
- 6. oxygen
- 7. гаге
- 8. to dry up
- 9. to befall
- 10. damage
- 11. concern
- 12. to create
- 13. explosion
- забота - создавать

- кислород

- высыхать

- редкий

- взрыв

- вред

- 14. to take measures принимать меры
 - сохранять
- 15. to preserve 16. to save
- спасать

Ecological Problems

Since ancient times Nature has served Man, being the source of his life. For thousands of years people lived in harmony with environment and it seemed to them that natural riches were unlimited. But with the development of civilization man's interference in nature began to increase.

Large cities with thousands of smoky industrial enterprises appear all over the world today. The by-products of their activity pollute the air we breathe, the water we drink, the land we grow grain and vegetables. Every year world industry pollutes the atmosphere with about 1000 million tons of dust and other harmful substances. Many cities suffer from smog. Vast forests are cut and burn in fire. Their disappearance upsets the oxygen balance. As a result some rare species of animals, birds, fish and plants disappear forever, a number of rivers and lakes dry up.

The pollution of air and the world's ocean, destruction of the ozone layer is the result of man's careless interaction with nature, a sign of ecological crises.

The most horrible ecological disaster befell Belarus and its people in the result of the Chernobyl tragedy in April 1986. About 18 per cent of the territory of Belarus were polluted with radioactive substances, a great damage has been done to the republic's agriculture, forests and people's health. The consequences of this explosion at the atomic power station are tragic for the Belarusian nation.

Environmental protection is a universal concern. That is why serious measures to create a system of ecological security should be taken.

Some progress has been already made in this direction. As many as 159 countries – members of the UNO – have set up environmental protection agencies. Numerous conferences have been held by these agencies to discuss questions of ecologically poor regions including the Aral Sea, the South Urals, Kusbass, Donbass, Semipalatinsk and Chernobyl. The international environmental research center has been set up on Lake Baikal. The international organisation *Greenpeace* is also doing much to preserve the environment.

But these are only the initial steps and they must be carried forward to protect nature, to save life on the planet not only for the sake of the present but also for the future generations.

1. Answer the following questions.

- 1) Is nature the source of people's life?
- 2) For thousands of years people lived in harmony with nature, didn't they?
- 3) Has man's interference in nature increased with the development of civilization? What has it led to?
- 4) Why did some species of animals, birds, plants disappear from the Earth?
- 5) What is the result of man's careless interaction with nature?
- 6) What do you know about the Chernobyl ecological disaster?
- 7) What are the consequences of this tragedy?
- 8) Environmental protection is a universal concern of everyone, isn't it?
- 9) Has anything been done to solve ecological problems?
- 10) Is international cooperation necessary to create a system of ecological security? Why do you think so?
- 2. Спросите своего друга:
- знает ли он что-либо об экологических проблемах нашего города;
- что является источником загрязнения окружающей среды;
- какие последствия небрежного вмешательства человека в природу можно наблюдать сейчас;
- что он знает об экологической обстановке в зоне Чернобыльской аварии;
- какова экологическая обстановка в районе Аральского моря (Белого моря, озера Байкал, Кузбасса, Донбасса);
- почему охрана окружающей среды является всеобщим делом;

- какие меры принимаются для предотвращения экологической катастрофы.

LESSON 5

1. to deny	- отрицать
2. to disturb	- нарушать, расстраивать
3. to disappear	- исчезать, скрываться
4. to fill	- наполнять, заполнять
5. extinction	- вымирание, потухание
6. to join	- соединять, присоединять
7. to support	- поддерживать

8. recent - недавний, современный

9. movement	- движение
10. to associate	- соединяться, общаться
11. trust	- доверие, ответственность
12. to warn	- предостерегать, предупреждать
13. ugliness	- безобразие
14. trash	- хлам
15. pure	- чистый, без примеси
16. treatment	- обращение, обработка
17. to install	- устанавливать, устраивать
18. cooperation	- сотрудничество

Great Troubles

The scientific and technological progress of the twentieth century resulted in widespread mechanization, automated lines, computerized management, spaceships, atomic power stations, pipelines, new roads and highways.

But it can not be denied that price for rapid industrial development is very high: natural resources are exhausted, the ecological balance of the planet is disturbed. The poisoning of the world's land, air and water is the fastest-spreading disease of civilization. It probably produces fewer headlines than wars, earthquakes and floods, but it is potentially one of history's greatest dangers to human life on Earth.

Some species of flora and fauna disappear, city and industry waters, chemicals and fertilizers are endangering lakes, rivers and ponds. The seas are in danger. They are filled with poison: industrial and nuclear waste, chemical fertilizers and pesticides.

People are beginning to realize that environmental problems are not somebody's else. They join and support various international organizations and green parties.

In recent years the pollution problems have received great publicity. The environmental movement associated with no political party has gained widespread trust and support. Environmental activists stress that the problem is caused by industrial pollution and the automobile. Long established environmental groups warn that acid rains threaten many forests. The media's begun to campaign against the ugliness of billboards, tin cans and trash. Many people started to realize that to keep air and water clean, strict pollution control is necessary.

The protection of natural resources and wildlife is becoming a political programme in every country. If governments wake up to what is happening – perhaps we'll be able to avoid the disaster that threatens the natural world and all of us with it. Numerous antipollution acts passed in different countries led to considerable improvements in environment. In many countries purifying systems for treatment of industrial waters have been installed, measures have been taken to protect rivers and seas from all waters. Wildlife reservation models of undisturbed nature are being developed in some parts of the world.

But the environmental problems have grown beyond the concern of a single country. Their solution requires the cooperation of all nations.

- 1. Answer the following questions:
 - 1) The scientific and technological progress of the twentieth century resulted in widespread mechanization, automated lines, computerized management, spaceships, didn't it?
 - 2) What will happen to the seas and rivers if present trends continue?
 - 3) What is the main cause of the greenhouse effect and acid rains?
 - 4) Why do some species and flora and fauna disappear?
 - 5) What problem have big cities?
 - 6) What do people do to preserve our nature?
 - 7) Why does the protection of natural resources become a political programme?

Найдите в левой колонке английские эквиваленты русских слов.

- 1. adverse environment
- 2. biological environment
- 3. difficult environment
- 4. man-made-environment
- 5. occupational environment
- 6. state of environment
- 7. urban-industrial environment
- 1. искусственная среда
- 2. окружающая среда на производстве
- 3. неблагоприятная среда
- 4. состояние окружающей среды
- 5. биосфера
- 6. воздушный бассейн города
- 7. неблагоприятные условия среды

- 2. Выучите диалог:
- What will happen the fastest-spreading disease of civilization continue for the next

several decades?

- If present trends continue for the next several decades, our planet will become uninhabitable.
- What will happen to the seas and rivers if present trends continue?
- If nothing is done about it one day nothing will be able to live in the seas.
- What is the main cause of the greenhouse effect and acid rains?
- Industrial enterprises emit tons of harmful substances. These emissions have disastrous consequences for our planet. They are the main reason for the greenhouse effect and acid rains.
- What do people of different countries do to save our planet?
- Numerous antipollution acts passed in different countries led to considerable improvements in environment. In many countries purifying systems for treatment of industrial water have been installed, measures have been taken to protect rivers and seas from oil waters. Wildlife reservation models of undisturbed nature are being developed in some parts of the world.

LESSON 6

- 1. ancestor
- предок
 рассматривать, считать, полагать
- to consider
 resource
- pecypc

- 4. to blame
- 5. to fight
- 6. consumer
- 7. human
- 8. achievement
- 9. to conquer
- 10. activity
- 11. to strive
- 12. attitude
- 13. disregard
- 14. to hunt
- 15. to reduce
- 16. span
- 17. obstacle
- 18. to oppose
- 19. inevitable
- неизбежный

The Acute Problems of Ecology

Our ancestors considered the Earth's resources to be boundless and endless. We have no right to blame our ancestors for their ecological ignorance: they fought to live.

Even in the 19th century when the word "ecology" was born people continued to use nature as consumers, considering Man to be "lord and king" of nature and not the child.

In the 20th century with the rapid growth of science and technology human achievements in conquering nature became so great that man's economic activities began to produce an increasingly negative effect on the biosphere.

People's striving to reach an immediate objective, their consumer attitude to nature in disregard of natural laws break natural balance. According to the International Union for die Protection of Nature 76 species of animals and some hundred species of plants have disappeared from the planet in the course of the last 60 years. 132 mammal and 26 bird species face extinction not so much due to hunting as due to the pollution of the biosphere.

The destruction of nature gradually led to the loss of the most essential element of existence, a healthy biological habitat. Environmental pollution increases the cases of disease, raises the cost of medical services, reduces the life-span of a man. By now the pollution and poisoning of the soil, water and air have reached a critical level.

Environmental pollution has become a significant obstacle to economic growth. The discharge of dust and gas into the atmosphere returns to the Earth in the form of "acid rain" and affects crop, the quality of forests, the amount of fish. To this we can add the rise of chemicals, radioactivity, noise and other types of pollution.

Economic, social, technological and biological processes have become so interdependent that modern production must be seen as a complex economic system. It is wrong to see economy and ecology as diametrically opposed such an approach inevitable leads to one extreme or the other.

- препятствие, помеха
- сопротивлягься, быть против
- охотиться
 - уменьшатъ. сокрашать
 - короткий промежуток времени

- пренебрежение

- порицать, винить

- потребитель

- достижение

- отношение

- человеческий

- деятельность

- бороться, сражаться

- завоевывать, побеждать

- добиваться, стараться

1. Answer the following questions:

- Who considered the Earth's resources to be boundless and endless?
- 2) What did the destruction of nature lead to?
- Environment pollution increases the cases of disease, doesn't it?
- 4) Why has environmental pollution become a significant obstacle to economic growth?
- 5) Economic, social, technological and biological processes have become so interdependent, haven't they?

2. Отразите согласие или несогласие с данными ниже положениями. Объясните свою точку зрения.

As far as the environment is concerned the trends are positive rather than negative. With respect to water quality, the key measure is drinkability. By this measure the water quality is getting better rather than worth. There is no factual basis for the forecast of more pollution in the future. The concept of "ecological stability" is too diffuse to be measured. There never have been any data showing that population growth or size or density have a negative effect upon the level of pollution. The number of potential threats to the environment is infinite. Some new pollution may kill all of us.

Составьте предложения, используя следующие глаголы.

to face something, to control something, to die from, to threaten (somebody, something), to happen, to share, to cause, to allow.

LESSON 7

- 1. success - успех
- 2. dreadful - ужасный, страшный
- 3. traffic - движение
- 4. common
- общий, простой, обыкновенный 5. advertisement - объявление, реклама
- 6. noise
- ШУМ
- 7. to take off - взлетать, снимать
- строгий, точный 8. strict
- 9. to share - разделять, делить
- 10. beach - пляж, взморье
- 11. to spoil
- портить - дорогой
- 12. expensive 13. valuable
 - Ценный
- 14. to employ
- предоставлять работу, нанимать
- 15. to suggest
- предлагать

Most of the western nations have the same basic environmental problems, but they take different forms in each country. Here you can read about some of the dangers facing Britain's environment.

One of Britain's environmental successes has been the control of air pollution, especially in London. Thirty years ago hundreds of people died every year from the dreadful London smogs. Since then London and many other cities have become smokeless zones, areas where no coal fires are allowed. But now file increase in traffic is threatening serious air pollution in our cities again.

However, the commonest air pollution comes from the cigarette smoke which pollutes many public places, like cinemas, pubs, and restaurants. Though cigarette advertisements are not allowed on TV or radio, you can still see them on posters in cinemas and in newspapers and magazines The advertisements don't tell you that doctors believe cigarettes cause 30.000 deaths in Britain every year.

Traffic and aircraft can cause serious noise pollution. Aircrafts are very noisy when they take off and the noise spreads over a wide area. Heathrow airport, near London, is the busiest airport in the world. Planes are only allowed to take off and land at Heathrow between six in the morning and eleven at night but during the day fifty planes take off and land there every hour.

There has been bad pollution of Britain's rivers, and the government has tried hard to stop it. There are now strict laws against water pollution, though it still quite often happens incidentally. Britain and France share the problem of oil pollution from the Channel. This has caused great damage to beaches and wildlife.

The need for new roads causes great environmental difficulties. They often spoil the countryside and bring noise and pollution to thousands of homes. Since 1958 the pollution of Britain has increased by 11% but the number of cars increased by 400%.

There are now only about thirty metres of road for each car in Britain, so well have to build more expensive motorways which damage the environment.

Cars cause other problems too: thousands of people die in car accidents; car parks use valuable space in towns and cities; cars use a lot of our limited amount of oil. Unfortunately, it's difficult to do anything about all this because cars play an important part in the lives of many.

- 1. Answer the following questions:
 - 1) What seems to be the writer's principal concern here?
 - 2) What is the difference between "sound" and "noise"?
 - 3) Has the environmental situation in Great Britain been improving or deteriorating?
 - 4) What form does the problem of the environment take in Great Britain? In your country?
 - 5) What conclusions does the author come in?
 - 6) In what way does the increase in population affect the environment?

7) Do you think there are other problems connected with the subject, which have not been mentioned? If so, describe them clearly and give relevant examples.

2. Закончите предложения, используя лексику текста.

1. The increase in traffic is ... 2. Air traffic can cause 3. There are strict laws against 4. Britain and France share the problem of... 5. This has caused great 6. Friends of the Earth suggest

LESSON 8

- 1. acid rain - КИСЛОТНЫЙ ДОЖДЬ
- 2 to disappear - исчезать, скрывать
- 3. to disturb - нарушать, расстраивать
- 4. extinction - вымирание
- 5. to worry
- беспокоиться 6. substance - вещество, материя
- 7. vinegar
 - VKCVC
- 8. to hurt
- причинять боль, повредить
- 9. soil
- почва, земля

Acid Rain

All over Europe and in North America, there are lakes and forests which are dead or dying and the cause is thought to be acid rain. What is acid rain? Mr. Justin Cook, a scientist explains: "All fossil fuels, that is oil, coal and gas, contain sulphur. When these are burnt, for example, in motor vehicles, they form sulphuric acid. This goes up into the air, and soon it falls back to earth, into lakes and onto trees in forests." This can cause local problems: cars near factories rust more quickly, and buildings start to destroy.

A greater problem exists when the acid rises into the air. Often it comes down into lakes or forests. As a result, lakes become acidic, fish disappear and trees are killed. The pollution great distances by the wind, so sulphuric acid produced in Britain can travel as far as Scandinavia. Czech republic is one of the countries with the most acid rain, and large areas of forests consist of dead trees. German forests are also very badly affected.

Is there anything which can be done about acid rain? Mr. Cook says: "The main source of acid rain is electric power stations. Some countries have passed laws requiring power stations to install filters that prevent the acid getting out into air. Here in Britain, the only measure that has been taken is that chimneys are built taller so that the pollution is more distributed." If the petrol used in motor vehicles were lead-free, then it would be possible to filter exhaust fumes which are a major cause of pollution. But these filter mechanisms cannot work unless the lead is removed.

So, it is possible to do something about acid rain. But unless the problem is faced very soon, it may be too late.

Answer the following questions.

- 1) What is acid rain?
- 2) Why do more and more plants and animals disappear every year?
- 3) Thousands of species of animals draw closer to extinction, don't they?
- 4) What is killing the fish now?
- 5) What problems do acid rains cause?
- 6) Acid rain is a kind of air pollution, isn't it?
- 7) What is happened when the acid rises into the air?
- 2. Translate the expressions.

Acid rain, to save the environment, because of pollution, global warming, poor soils, gases emission, a lot of dangerous gases, a steady level, climate zones, the level of the sea will rise, the climate changes.

- 4. Find in the text the sentences which show that:
 - 1) Acid rain and the warming of the atmosphere are the effects of human activity.
 - 2) Pollutant gases produce the effect of a greenhouse for the Earth's climate.
 - 3) The soil is being degraded quickly because of acid rain.
 - 4) The wildlife in the Earth's water reserves is endangered with extinction because of acid pollution.
 - 5) The warming of the atmosphere may threaten the world with hunger.
 - 6) The health of people is also in danger.

LESSON 9

- 1. to link связывать
- 2. growth рост
- 3. to supply снабжать, поставлять, удовлетворять
- 4. destruction разрушение, уничтожение
- 5. to reach достигать
- 6. threat угроза to threaten угрожать
- 7. application применение
- 8. to interfere вмешиваться
- 9. desert пустыня
- 10. in spite of вопреки
- 11. damage повреждение, убыток, ущерб
- 12. to destroy разрушать

Ecology is a Priority Part I

The ecological problem is one of the pressing problems of our days. It is closely linked to the problems of economic growth, progress in science and technology, natural resources, energy and food supplies.

The pollution of the environment, the destruction of many species of plants and animals have now reached threatening proportions. The application of new technological processes may cause catastrophic results. It is evident that man cannot and must not use his power carelessly. He must not interfere in nature and radically try to change it, without taking into consideration possible negative effects. Man can turn not only deserts into oases but also oases into deserts.

In spite of man's growing power he still needs earth materials to support his body and build his civilization. Man is a part of nature and the understanding of the wholeness of the environment with man (as part of it) is very important.

Earth is a delicately balanced system that can easily be damaged, and some of its individual parts can be completely destroyed. We must learn to recognize our dependence of earth. It may be beyond man's power to reconstruct what was destroyed.

The extinction of animals and plants, deforestation, air, water and soil pollution – these are a few of the dangerous results of the people's activity. For example, killing insects may result in a loss of balance in the ecology because they provide food for birds. Fruit and vegetables sprayed with chemicals have some poisonous effect upon the people who eat them. The use of chemical and biological weapons could also result in very serious ecological consequences.

1. Answer the following questions.

- 1) Why is the ecological problem considered one of the pressing problems of our days?
- 2) Why do we say that ecology is closely linked with economic growth and progress in science and technology?
- 3) What connection is there between the ecological situation and natural resources or the use of energy?
- 4) In what regions of the world has the destruction of plants and animals reached threatening proportions?
- 5) Why should the interference of man in nature be careful and controlled?
- 6) What can careless interference of man in nature lead to?
- 7) Have people ever changed cases into deserts?

- 8) Do people still depend on earth and nature?
- 9) Could you give examples showing that earth as a delicately balanced system can easily be damaged?

2. Give words of the same root in Russian. Compare the meanings. Is there any difference?

Cycle, nature, balance, delicate, degradation, acceleration, effects, fundamental.

3. Use words from the text to complete the sentences.

- 1) The pollution of the environment, the destruction of many species of plants and animals have now reached ...
- 2) The application of new technological processes may cause ...
- 3) We must not interfere in ...
- 4) Man can turn not only ...
- 5) Man is a part of nature and ...
- 6) We must learn to recognize ...
- 7) Fruit and vegetables sprayed with chemicals ...

LESSON 10

- 1. weapon оружие
- 2. emission выделение, выпуск
- 3. harmful вредный
- 4. waste отбросы (производства), бесполезная трата
 - 5. improvement улучшение
 - 6. to absorb поглощать
- 7. contaminant загрязнение
- 8. shortage нехватка, недостаток
- 9. to conceal скрывать
- 10. disaster бедствие

Ecology is a Priority Part II

Industry pollutes the atmosphere by emission of harmful gases and industrial dust. Today industry is facing the task of introducing non-waste technology. Besides enterprises should have efficient cleansing systems.

Improvement in city planning is of great importance in keeping the air clean. Factories should be built beyond city limits. Plants clean the air in cities of harmful components. Trees play the role of biological filters absorbing gas contaminants from the air. People are greatly worried about the ecological problems, not less than about the growth in the rate of crime,

the shortage of food products and inter-ethnic conflicts. A lot of people are willing to help ecological movements.

She "green movement" may be qualified as non-governmental, nonstate initiative and activities of people against the construction of facilities capable of damaging the environment. Tills means the struggle to save Lake Baikal, to cancel the projects for changing the flow of northern rivers and building nuclear power plants. This also includes objective information on the true scope of the Chernobyl disaster, and the consequence of nuclear tests on the Semipalatinsk and Novaya Zemlya testing ranges. Greenpeace, the best known ecological movement in the world, established a branch in our country a few years ago. It can count on the support of the population all over the country.

- 1. Answer the questions.
- 1) What are the dangerous results of people's activity?
- 2) Hoe does industry influence the atmosphere?
- 3) Do all enterprises have efficient cleaning system?
- 4) What improvement should be introduced in city planning?
- 5) What role do trees play in towns?
- 6) What is your opinion about the project to change the flow of northern rivers.
- 7) Have the nuclear tests on the Semipalatinsk and Novaya Zemlya ranges been stopping?
- 2. Find in the text equivalents to the following phrases.

При температуре; природные бедствия, вызванные деятельностью человека; промышленное загрязнение атмосферы; серьезные экономические последствия; разрушение жизни на земле; вредное выделение; недостаток пищевых продуктов; понимание важности окружающей среды.

A	В	
1) From the burning of coal, gas and	a) destroy the air	
oil		
2) The gases from chemical fertilizers	b) to stop acid rain	
and rubbish		
3) The gases from aerosols	c) nearly 6 billion tons of carbon	
	dioxide enter the atmosphere every	
	year.	
) South American, Asian and African d) add to the greenhouse effe		
countries		
5) The use of natural energy of the	e) must conserve their	

3. Here are some causes of pollution and actions needed to stop them.

sun, sea, and wind	rainforests.
6) We must make our power stations	f) will help to slow down global
and factories cleaner	warming.

LESSON 11

- 1. to regard рассматривать
- 2. species вид
- 3. conceivable воображаемый
- 4. to melt таять
- 5. flood поток, наводнение
- 6. livelihood средство к существованию
- 7. fashionable модный
- 8. apart from помимо
- 9. to suffer (from) страдать от
- 10. greed жадность
- 11. benefit прибыль
- 12. regardless несмотря
- 13. extinct вымерший
- 14. to reassess зд.: пересмотреть
- 15. acceptable приемлемый
- 16. to worsen ухудшать
- 17. to be responsible for быть ответственным за

Pollution Part I

Man has always regarded himself as the most important species on Earth and has used whatever the planet can provide for his own good. It is only recently that we have begun to question this behaviour and to realise that it cannot continue.

The second half of the twentieth century has seen many dramatic changes in the way we live, particularly in industrialised countries, and our environment is now paying the price for this. Scientists tell us that there are holes in the ozone layer caused by excessive production of CO_2 , and this is likely to lead to a warming of the Earth's climate. It is quite conceivable that the polar ice caps will begin to melt and this might well result in large areas of land being flooded. Many people will, consequently, lose their homes and their livelihoods.

The danger of the warming-up of the Earth, or the greenhouse effect as it is called, is something which it is becoming "fashionable" to discuss and worry about. However, there are other less fashionable aspects of the problem which, unless controlled, will lead to dramatic changes in the life of our planet. The destruction of large areas of forests is not only reducing the oxygen supply but destroying the natural habitat of thousands of different plants, animals, birds and insects.

Apart from these examples, the animal world has suffered greatly from man's greed. Our attitude seems to be: if we can use an animal either to make money from or to use for our own benefit, then we have the right to do so regardless of whether this causes the species to become extinct.

We will have to reassess our way of living and question whether continued growth at the expanse of other creatures and of the planet itself is acceptable. The worsening situation will an all probability force us to change our behaviour both at an individual and a national level. The developed world, which is responsible for the majority of the environmental problems we are now facing, also has a responsibility to help the underdeveloped countries not make the same mistakes.

1. Answer the following questions.

- 1) How has the man always regarded himself?
- 2) What are holes in the ozone layer caused by?
- 3) What can it lead to?
- 4) What is another name for the warming-up of the Earth?
- 5) What is caused by the destruction of large areas forests?
- 6) What did the animal world greatly suffer from?

2. Read the sentences and translate.

1. To save the environment in some parts of Norway, the acid level must be 80% lower. 2. This time the climate change isn't happening naturally, but because of pollution and very, very quickly. 3. By the year 2010 Germany's Black Forests may be dead. 4. We can't stop global warming, but we can slow it down. 5. 125,000 years ago the climate was 3° hotter than today. 6. Tropical areas are especially in danger of this sort of pollution because of their poor soils. 7. Most scientists agree that without a worldwide effort to lessen pollutant gases emission it may become 1,5 - 4° hotter on the planet by 2030.

3. Ask and answer. Work in pairs. One student completes the question, the other completes the answer. Take turns.

- 1. Why is the warming of the Earth's climate called ...?
- Because the pollutant gases ...
- 2. How does acid rain effect ...?
 - It damage the roots and ...
- 3. Why is ... an international hazard?
 - The wind ...
- 4. What will happen to the ice ...?
 - It will ...
- 5. Can we stop ...?
 - No, we can't, but ...

- 6. What is ... ?
 - It's a mixture ...
- 7. How much and how soon may the global ... rise ?
 - By the year 2030 ...

LESSON 12

- 1. flood
- наводнение
- 2. drought
 - засуха - голод
- 3. famine
- 4. common 5. exhaust
- 6. fossil
- 7. to release
- 8. fertilizer
- 9. untreated
- 10. to discharge
- 11. sewage
- 12. waste
- 13. to widespread
- 14. deplete
- 15. to implement
- 16. saving
- 17. survival
- выживание

Pollution

Part II

How long can we continue polluting and destroying our planet before even who benefit most from the ransacking of its resources realise that time is running but?

The average global temperature is now almost one degree Fahrenheit higher than a century ago, and the number of natural disasters – floods, storms, drought, famine - has risen appreciable even in the last thirty years.

Global warming is largely the result of what is called "the greenhouse effect". This term describes the absorption of solar heat - which should naturally be re-radiated into space after striking the earth's surface - by various gases of which carbon dioxide (CO_2) is the commonest. Every litre of petrol used – whether lead-free – represents the emission of 2.5 kilos of CO_2 from your car exhaust. Burning fossil fuels – oil, coal, wood – to produce energy in power stations results in the release not only of CO_2 but also of sulphur dioxide, the principal cause of acid rain.

- экономить

- высвобождение - удобрение

общепринятый

- зд.: выхлоп

- ископаемый

- необработанный
- выливать
- сточные воды
- отходы
- широко распространяться
- истощать, исчерпывать
 - осуществлять, выполнять

As far as the destruction of our immediate environment is concerned, the effects of "progress without responsibility" are there for all to see: chemical fertilizers and pesticides pollute our rivers, untreated sewage and radioactive waste are discharged into the sea to contaminate beaches and disrupt marine food chains, acid rain from industrial activity kills forests and lakes, and in some pans of the world widespread burning of forests catastrophically depletes the oxygen supply and accelerates the release of CO_2 into the atmosphere.

But it is no use the rich nations of the world trying to moralise: they themselves are the countries that have produced the greenhouse effect. Our duty – to the huge and expanding populations of the Third World is to pass on the bitter lessons we have learnt, to implement our own programmes of energy saving, and to help others develop the alternative low-energy technologies on which human survival will depend.

1. Answer the following questions.

- 1) What must people do in order to protect their immediate environment?
- 2) What is the average global temperature now in comparison with the previous century?
- 3) What is caused by the "greenhouse" effect?
- 4) How much CO^2 is emitted by the car exhaust?
- 5) What are the effects of "Progress without responsibility"?
- 6) How can the mankind protect itself from catastrophic damage?
- 2. Complete the following sentences. The words in brackets will help you.

1. The polar bears will have nowhere to live if ... (polar ice). 2. We will save the planet's wildlife if ... (habitats). 3. If there is little in the lake or river water, ... (the fish). 4. If we continue to pollute rivers with industrial wastes, ... (poisonous – ядовитый, вредный). 5. Rich farm lands will become deserts when ... (temperature).

3. Topics to discuss.

1. Greenhouse effect. 2. Dramatic changes in our life. 3. Actions to be taken by people. 4. "Progress without responsibility". 5. The duty of the mankind.

LESSON 13

- 1. phenomenon явление
- 2. deleterious E
 - вредный
- 3. consequence последствие
- 4. mining горное дело; разработка

 to regard steadily 	 рассматривать устойчиво, непрерывно
7. diversified	- разнообразный
8. waste products	- отходы
9. to release	- сбрасывать
10. to pile up	- собирать, накапливать
11. to originate (from)	- происходить, возникать
12. thereafter	- с тех пор, впоследствии
13. to be disposed of	- распорядиться (чем-то)
14. consumer	- потребитель
15. survival	- выживание
16. to restore	- восстанавливать
17. refining technology	- технология очистки
18. to be aware (of)	- знать о
19. convention	- договор, соглашение
20. agenda	- повестка (дня, собрания)

Baltic Sea Problems

Effects of human activities on the environment is not a new phenomenon. Deleterious consequences of mining on the immediate environment were obvious at early stages. In particular, the unhealthy influence on workers in polluting factories was obvious even from the early development of industrialism. Large-scale effects are however more recent.

Around 1950 the Baltic Sea, although by no means unpolluted, was regarded as environmentally "healthy". Large-scale industrialization had not yet affected the environment as a whole, automobiles were few, and the modernization of agriculture was only beginning. Forty years later the Baltic Sea has become one of the most polluted seas in the world. How could this happen?

In the 50s and 60s all countries around the Baltic Sea experienced rapid economic development. Industrial production has grown steadily and has been largely diversified. Industrial processes are never perfectly clean. There are always some waste products: in the form of smoke released into the air, polluted water to waterways or solid waste which is piled up on the ground. But industrial pollution does not only originate from industrial plants, but also from mining and forest operations, energy production emissions from various means of transportation and, last but not least, from the product itself when it is used and thereafter disposed of by consumers. Knowing the pollutants and their environmental effects does not better the Baltic Sea very much. Only through action, be it technical, political or legal, can the condition of the Baltic Sea be improved.

One condition for survival in the Baltic region is that the ecological balance be restored: the Baltic Sea has to be cured from its serious illness.

Restoring the ecological balance is as vital task. One part of the problem is refining technology and remedying the damage already done.

The second is stabilizing the national economics of the region so as to make proper investments in new technology, which is safer for the environment. The third has more to do with politics and public opinion, i.e. (*nam. id est – mo ecmb*) making politicians and the broad masses of the population aware of the present danger.

In 1974 the Convention on the Protection of the Marine Environment of the Baltic Sea Area, the Baltic (or Helsinki) Convention was signed in Helsinki which included several types of pollution (land-based pollution, pollution from ships, etc.). As a consequence of the growing international concern for the environment at the and of the 1970s, the environmental movement became politically established. Green Parties were formed in many countries. Important question on the Greenpeace agenda are the struggle against waste exports and selling old, dangerous technology to the third world, as well as an international campaign against chlorine and the risk connected with radioactive waste. There is a special Greenpeace campaign in the Baltic region, which is called "The Baltic Sea-live or let die".

Now the Sea is in danger. It's time to understand it and help to the Sea.

- 1. Answer the following questions.
 - 1) What are the negative effects of human activities on the environment?
 - 2) What was the state of the Baltic Sea in 1950s?
 - 3) How did it change by the end of the 20th century?
 - 4) Are industrial processes perfectly clean?
 - 5) What forms of waste products do you know?
 - 6) What are the conditions of survival for the Baltic region?
 - 7) What practical steps should be taken by the countries of the Baltic Sea area to improve the situation?

2. Answer the questions and give your reason. Start your answer with:

I think (suppose) that	– я думаю, что
In my opinion; to my mind	– по-моему; по моему мнению
I must say that	– должен сказать, что

- 1) Why is the environmental crisis the international problem?
- 2) Can people slow down the environmental degradation?
- 3) Is the energy crisis one of the effects of the environmental crisis?
- 4) Why is the present situation threatening the survival of life itself?

Topics to Discuss.

- 1. Pollutants and their sources.
- 2. Conditions of survival for the Baltic region.
- 3. Greenpeace agenda.

LESSON 14

1. to extinct - вымирать 2. habitat - среда обитания 3. insect - насекомое 4. jungle - джунгли 5. marsh - болото, топь 6. suffer - страдать, терпеть 7. to maintain - сохранять, поддерживать 8. wild - дикий 9. to hunt - охотиться 10. profit - выгода, польза 11. poacher - браконьер 12. rhino - (abbr.) rhinoceros – носорог 13. rainforest - субтропические леса 14. deforestation - исчезновение лесов 15. to decav - гнить, приходить в упадок

Animals and Forests in Danger

I. By the year 2030, 25% of all animals, birds, fish and insects may extinct. Why is this happening? Well, there are three main reasons. The first is pollution. Millions of animals die every year because man has polluted their natural home or "habitat". A habitat contains everything a living thing needs: food, water, shelter, space, light.

Pollution and destruction change the balance of nature. Each species in a habitat – wood, jungle, marsh or forest – needs and helps the rest. If one animal, bird or insect disappears, all the rest suffer, too, because some plants and animals provide food for other animals. Forests help to regulate water supplies. We all need the help of all living things to maintain chemical balance of the atmosphere.

After pollution or destruction, habitats take many years (sometimes hundreds or even thousands) to grow again. This is what's happening in the rainforests of South America, Africa and Asia. These are some of the world's oldest habitats.

The second reason is the environment itself. It is becoming smaller. Every year man cuts down more trees, builds more roads and uses more farming. This leaves fewer jungles, fields and forests for wildlife. In fact scientists believe that thirty British animals extinct by the beginning of the 21st century.

Today, many more species are in danger not only because man destroys and pollutes their habitat, but because man hunts them. Man has always been a hunter. He still is. But many modern hunters don't just kill for food – they kill for profit. That is why so many rare and protected animals are still dying. Hunters like these are called poachers. In 1981 there were 15,000 black rhinos in Africa. Today, because of illegal hunting, that number is 4,500.

There is only one way to save wild animals and wild habitat – conservation. If it doesn't happen, many animals will soon have just one habitat – the Zoo.

II. Stopping deforestation is another vital task. When a tree burns or decays it release the carbon it has absorbed over its entire lifetime. The deforestation of tropical rainforests accounts for about 20 per cent of the world's CO₂ emissions.

Tropical rainforests are the richest habitats an earth, forming a green belt around the Equator, 20 degrees north and south, from South and Central America to West Africa and South-East Asia. While they cover only 8% of the Earth's land area, they contain more than 50% of all species. They also secure the Earth's most important cycles like the soil, water, air – upon which man is totally dependent.

Deforestation has been going on for centuries. By 1988 half of the world's tropical rainforests were gone. Vast areas have been cut down for timber to go to Europe and also to make way for plantations and mining.

Forests are being burned to the ground to make way for cattle ranches to produce cheap beef for us hamburger.

1. Answer the following questions.

- 1) When may all animals, birds, fish and insects be extinct?
- 2) What are main reasons?
- 3) How do pollution and destruction change the balance of nature?
- 4) Forests help to regulate water supplies, don't they?
- 5) What should people do to maintain chemical balance?
- 6) Why do many species of animals and plants disappear?
- 7) What do you know about deforestation?
- 2. False or true? Give reasons for your answers based on the text.
 - 1. "rare" means underdone, cooked so that some blood remained.
 - 2. "extinct" means dead, no longer in existence.
 - 3. "wild" is used in the text meaning stormy, violent.
 - 4. "habitat" is a natural place, home.
 - 5. "rainforest" is the place where it rains hard all year round.
 - 6. "species" means here a group having some common characteristics.
 - 7. "poacher" is a hunter having special legal permission to hunt animals.
- 3. Agree or disagree with the following using the phrases:

I quite / fully agree with you.	I don't think so.
I can't but agree with you.	I can't agree with you.
I think so too.	I doubt that
That's right.	It is unlikely that
	That's wrong.

The Fur Trade Argument

Against	For	
Many wildlife species experts want	Bur the fur trade says:	
to stop the fur trade. They say:		
 It's wrong to keep wild animals in cages. 	 People want to buy fur coats and hats. 	
 It's wrong to kill animals for fashion and profit. It's wrong to kill wild animals in traps (капкан). It's wrong to sell the fur of rare protected species. 	Hunters catch fewer and fewer	

LESSON 15

1.	anxiety	- беспокойство
2.	to creep (crept)	- подкрадываться
3.	fat	- толстый
4.	junk food	- нездоровая пища, изобилующая добавками и
		наполнителями
5.	disease	- болезнь
6.	additive	- добавка
7.	to process	- подвергать обработке
	processed	- (зд.) готовый к употреблению
9.	fertilizer	- удобрение

Food Safety

There are two sides of the food issue. In poor countries it's a question of life and death. In rich countries it's a question of health and diet.

Food has become the source of anxiety to many people. Behind it lies a revolution in the way our food is now produced. The problem is that a vast range of chemicals used on the modern farm have crept into our food. Our *diet* – the food we eat – is not always healthy.

30% of Americans and 25% of Europeans are fat because they eat too much junk food: hamburgers, popcorn, pizza, chocolate. Why is junk food bad for us? The answer is simple. It contains too much sugar and fat. This is a reason why so many people die of heart diseases.

Finally, there are "additives" – a group of chemicals which food factories use. They make food look better, taste better, last longer. The best recommendation is to stop eating processed foods. Instead there is a diet of fruit, vegetables, brown bread, fish and other "health" foods.

But even health food isn't always healthy. People don't just pollute the atmosphere. They pollute themselves too. Modern farmers and food

factories use over three thousand chemicals. Some are "fertilizers" – these help crop to grow. Others are "pesticides" which kill insects. A third group are "hormones" – these make animals, like pigs, grow more quickly.

Concern about the health risks caused demand for organic food, grown without chemicals. Chemicals are replaced by crop rotation. Organic agriculture is also kinder to the environment, the soil and the farm workers.

You may turn your worry about food to action. As a shopper you have a great deal of influence. How you choose to spend your money shape the supply chain policy. Citizens can choose and campaign for food that is safe to eat, healthy for themselves and environment.

- 1. Ask and answer. Work in pairs. One completes the question.
 - 1) What are two major ...?
 - 2) Why has our food become ...?
 - 3) Why are there so many ...?
 - 4) Why is junk food ...?
 - 5) Why isn't health food ...?
 - 6) What substances help ...?
 - 7) How do farmers grow ...?
 - 8) Why do we say that organic agriculture ... kinder ...?
 - 9) How can people change ...?
- 2. True or false? Give reasons for your answers based on the text.
 - 1) All our food is healthy.
 - 2) Junk food is very good for men.
 - 3) Chemicals used on a modern farm pollute our food.
 - 4) Fruits and nuts, vegetable and wheat are health food.
 - 5) Food additives can add colour, flavour, artificial sweetness.
 - 6) Hormones help plants grow.
 - 7) Fertilizers are used to kill insects and weeds.
 - 8) Chemicals make agriculture safer and healthier.
 - 9) All food grown on a farm can be called organic.

3. Find in the text the equivalents to the following words and phrases.

Источник беспокойства; огромное количество химических веществ; то, что мы обычно едим; очень полные люди; нездоровая пища с большим количеством химических добавок; готовая к употреблению пища; ядохимикаты; пищевые продукты, выращенные без применения химических веществ; формировать политику поставок пищевых продуктов (в магазин). Нетёсова Юлия Александровна

АНГЛИЙСКИЙ ЯЗЫК

Практикум по развитию навыков чтения и перевода для студентов 2 курса технологического факультета направления **«Безопасность жизнедеятельности»**

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