

Global environmental problems of our time



***What kind of world do
we live in?***



What kind of world do we live in?



We live in the world of the information society, the world of the highest achievements and advanced technologies. Over recent decades, the lives of billions of people on Earth have changed dramatically.



*ask
yourself*



WHY



First and foremost, this is due to the intensive development of scientific and technical knowledge, the development of industry and cities, the emergence of new technologies.

The rapid progress of science and technology on the one hand made it possible to satisfy all the needs of human society, but on the other hand it worsened the conditions of its existence.



Global problems of war and peace, health, existed before and were relevant at all times. But environmental problems appeared later due to the intensive influence of society on the natural
ENVIRONMENT.



GLOBAL ENVIRONMENTAL PROBLEMS

*Nowadays environmental problems are surprising in their scale, and therefore the environmental situation in the world can be defined as **critical**.*

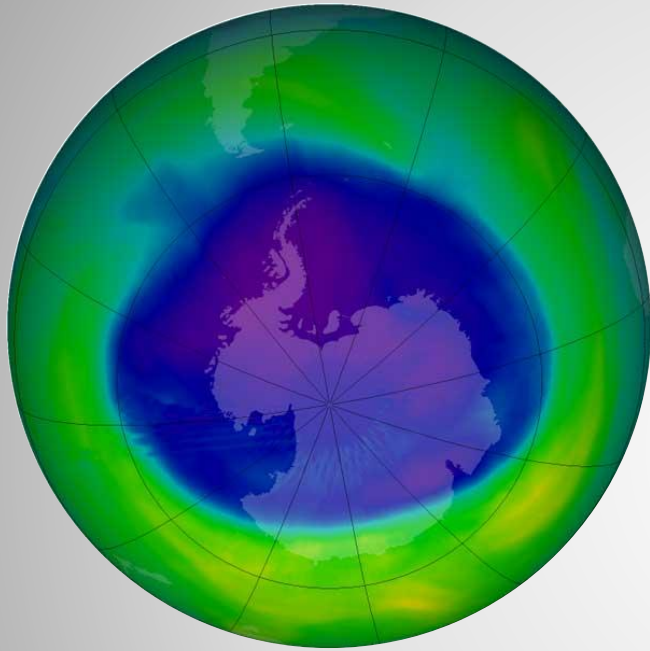
**Please list the
environmental
problems of our
days**



✓ Ozone depletion

The main amount of ozone is formed in the upper layer of the atmosphere - the stratosphere, at altitudes from 10 to 45 km. A layer of ozone protects all life on Earth from the hard ultraviolet radiation of the sun. By absorbing this radiation, ozone significantly affects the temperature distribution in the upper atmosphere, which in turn affects the climate.





The depletion of the ozone layer of the planet leads to the destruction of

- *the established ocean biogenesis due to the death of plankton in the equatorial zone*



PLANT GROWTH INHIBITION





**▪ A SHARP INCREASE IN EYE
DISEASES AND CANCER**



■ WEAKENING OF THE IMMUNE SYSTEM OF HUMANS AND ANIMALS

✓ **WATER POLLUTION**



The problem of water pollution (seas, rivers, lakes, etc.) is one of the most pressing. Man, by his activity, irrevocably changes the natural regime of water bodies with waste and discharges.



There is a lot of water on Earth, only 3% is fresh water, the remaining 97% is water of the seas and oceans. Three quarters of fresh water to living organisms is not available, as it is the water of glaciers. Glacial water is a supply of fresh water.



The previously inexhaustible resource - fresh water - is now becoming exhausted. In many parts of the world there is not enough water for drinking, irrigation, industrial production. This problem is very serious, as water pollution will affect future generations.



✓ *The changes in the Earth`s climate*



Modern scientific researchers have established that the impact of human activity on the global climate is associated with several factors, especially with an increase in:

- atmospheric aerosol masses;*
- generated during the economic activity of thermal energy entering the atmosphere.*



The main contribution (65%) to warming is made by carbon dioxide, resulting from the combustion of coal, petroleum products and other fuels. The termination of this process in the coming decades seems technically unfeasible. In addition, energy consumption in the developing world is growing rapidly.



The main contribution (65%) to warming is made by carbon dioxide, resulting from the combustion of coal, petroleum products and other fuels. The termination of this process in the coming decades seems technically unfeasible. In addition, energy consumption in the developing world is growing rapidly.



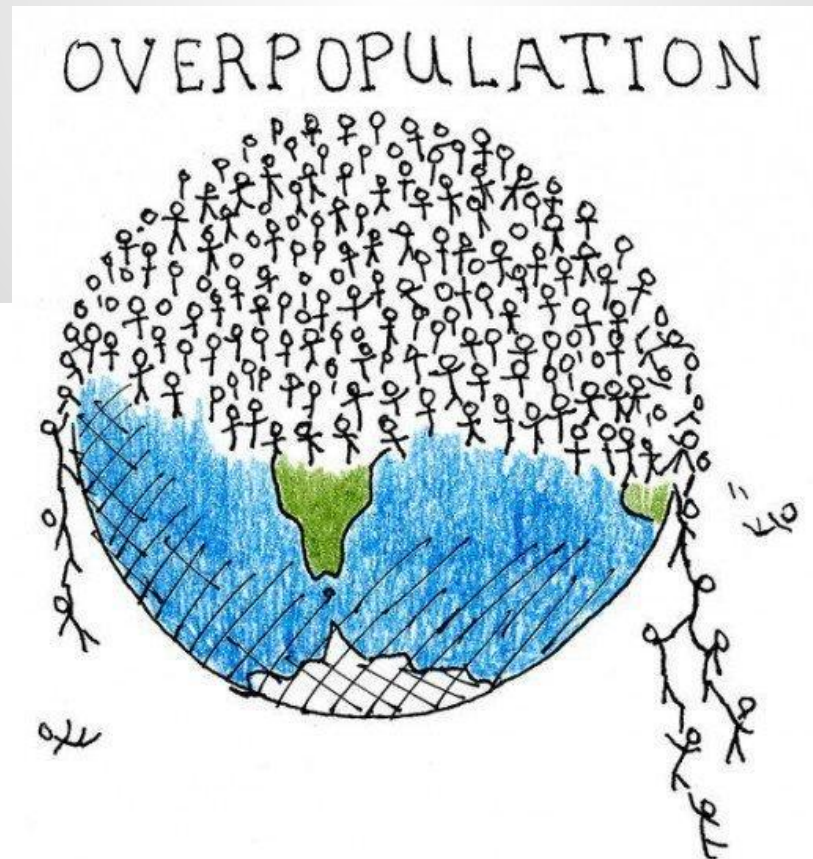
The following effects of global warming are predicted:

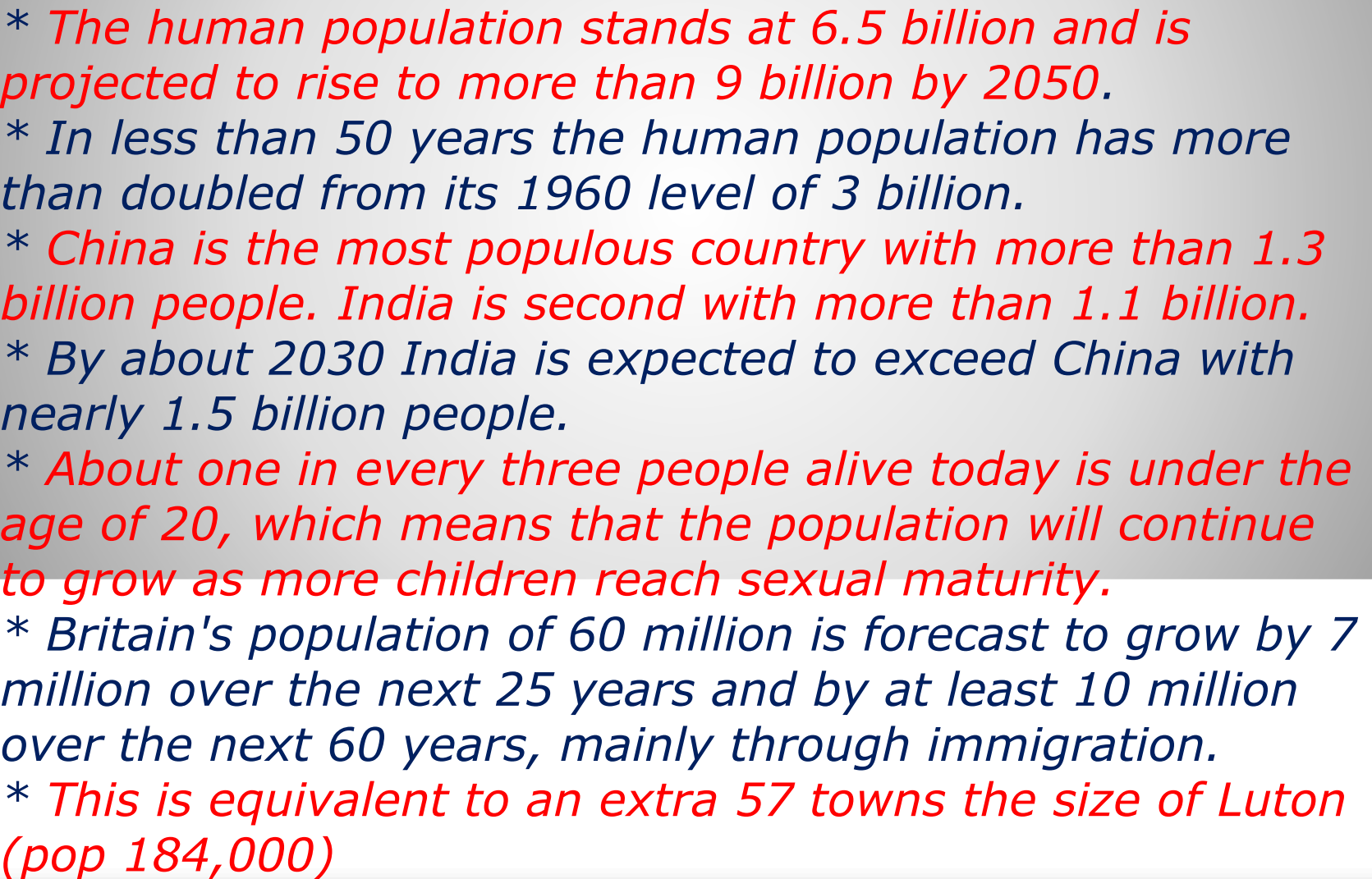
Sea level rise due to melting of glaciers and polar ice (over the past 100 years, it has already risen by 10-25 cm), which in turn will lead to flooding of areas, displacement of wetland boundaries, increased salinity in river mouths, as well as potential loss of places of residence of a person;

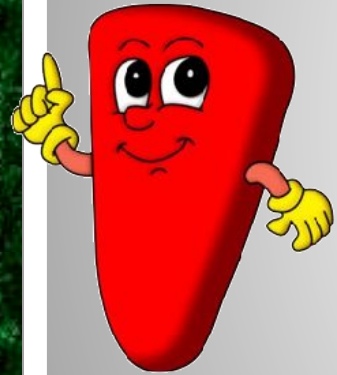
change in precipitation (it will increase in northern Europe and decrease in southern);

change of hydrological regime, quantity and quality of water resources.

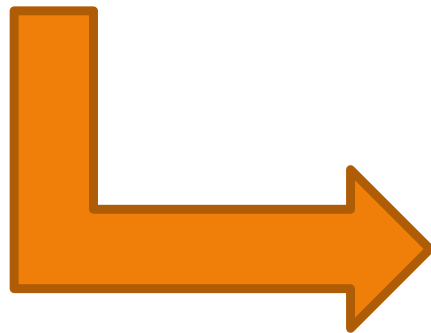
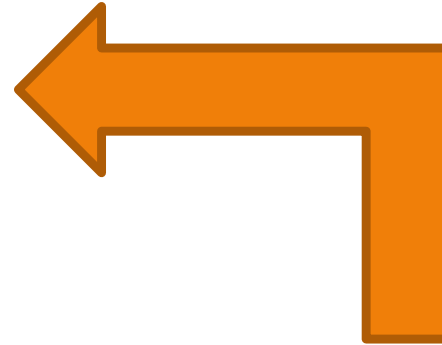
✓ RAPID URBANIZATION OF THE POPULATION







● **By the time you have finished reading this column, an estimated 100 babies have been born in the world.**



76 million

The rate at which the population grows per year ⁽²⁾

In the last **40 years,** the population has doubled. ⁽²⁾

1974 1984 1994 2004 2014

WORLD POPULATION BY YEAR

POPULATION
(IN BILLIONS)
YEAR

1

1804

2

1927

3

1959

4

1974

8

2023 (estimated)

7

2011

6

1999

5

1987

10 MOST POPULOUS COUNTRIES ⁽³⁾

China

1,355,692,576

Indonesia

253,609,643

Nigeria

177,155,754

Japan

127,103,388

India

1,236,344,631

Brazil

202,656,788

Bangladesh

166,280,712

United States

318,892,103

Pakistan

196,174,380

Russia

142,470,272

THE CAUSES

WHY SUCH A HUGE INCREASE IN POPULATION IN JUST THE PAST 40 YEARS ALONE? ⁽⁴⁾

The infant mortality rate IN 1900 was 165 PER 1,000 BIRTHS. TODAY, that rate has lowered to 7.

IN 1900, the average life expectancy was a mere 48 YEARS. But thanks to advances in modern medicine and nutrition education, TODAY the average life expectancy in the U.S. is 78 YEARS: a 30-year difference in just over a century.

191,000 infants born in the U.S. in 2005 alone were conceived via FERTILITY TREATMENTS. They accounted for 4.6% OF BIRTHS THAT YEAR.

Across the world, in developing countries, fewer than 1 IN 5 WOMEN uses a form of family planning. With a lack of education about contraception, the population continues to boom.

DECLINE IN DEATH RATE (PARTICULARLY INFANT MORTALITY) ⁽⁵⁾

ADVANCED MEDICINE ⁽⁶⁾

FERTILITY TREATMENT TECHNOLOGY ⁽⁷⁾

LOCK OF FAMILY PLANNING ⁽⁸⁾

THE EFFECTS

OVERPOPULATION ALREADY AFFECTS MOST COUNTRIES IN THE WORLD. AND IF RATES CONTINUE AS THEY ARE, IT'S ABOUT TO GET A LOT WORSE. ⁽⁴⁾

FOOD SHORTAGES/STARVATION ^[9]



Between 2010 and 2012,

1 in 8

people around the world was suffering from hunger and undernourishment.

EASILY SPREAD DISEASE



The closer people become, the easier airborne illnesses are spread.

8.6 million

Tuberculosis cases in 2012 ^[10]

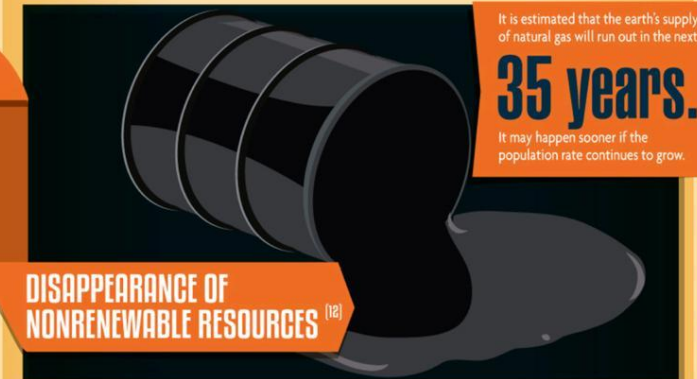
WATER SUPPLY CONTAMINATION ^[11]



3.4 million

people die each year because of contaminated water related disease. Overpopulation will only create more polluted water supplies.

DISAPPEARANCE OF NONRENEWABLE RESOURCES ^[12]

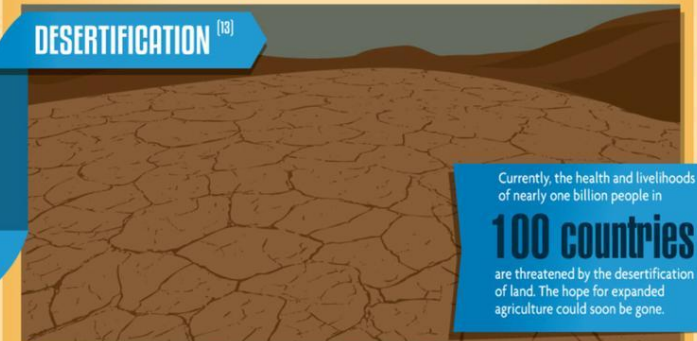


It is estimated that the earth's supply of natural gas will run out in the next

35 years.

It may happen sooner if the population rate continues to grow.

DESERTIFICATION ^[13]



Currently, the health and livelihoods of nearly one billion people in

100 countries

are threatened by the desertification of land. The hope for expanded agriculture could soon be gone.

ENVIRONMENTAL DAMAGE

Beyond desertification, the general environment is very affected by overpopulation; with more people come more CO₂ emissions. Climate change will be accelerated due to higher amounts of CO₂ and methane in the atmosphere.^[14, 15]

CLIMATE CHANGE-RELATED PUBLIC HEALTH CONCERNS:



HEAT WAVES



HURRICANES



INSECTS



CONTAMINANTS



TSUNAMIS



DROUGHT



AIR POLLUTION

UNEMPLOYMENT^[16]

The number of jobs available will never catch up with the population boom. In the last 60 years, the unemployment rate in the U.S. has risen from

2.5% to 6.1%.

RISING CONFLICT BETWEEN TERRITORIES

Overpopulation will undoubtedly cause more wars regarding the ownership of land.

55,000

Conflict- or terrorism-related deaths every year^[17]

SOURCES:

1. <http://www.worldometers.info> • 2. <http://www.overpopulation.org> • 3. <https://www.cia.gov> • 4. <http://www.conserve-energy-future.com> • 5. <http://www.pbs.org> • 6. <http://mappinghistory.uoregon.edu> • 7. <http://www.cdc.gov> • 8. <http://www.prb.org> • 9. <http://www.worldhunger.org> • 10. <http://www.who.int> • 11. <http://water.org> • 12. <http://greenliving.lovetoknow.com> • 13. <http://www.iad.org> • 14. <http://www.biologicaldiversity.org> • 15. <http://www.apha.org> • 16. <http://www.tradingeconomics.com> • 17. <http://www.genevadeclaration.org>

Possible solutions to problems

It is necessary to solve these problems as soon as possible, and this should be the task of the whole of humanity, of the whole world community. An attempt to unite on an international scale was made at the beginning of the 20th century, when in November 1913 the first international meeting was held in Switzerland concerning the protection of nature. The conference was attended by representatives of the 18 largest countries in the world.



Today, cooperation between states is reaching a new level: joint development and programs, conclusion of international conventions on nature conservation.



The activity of many well-known public organizations involved in environmental protection, Greenpeace, as well as the Green Cross and Green Crescent, which are developing a program to address the issue of holes in the ozone layer of the Earth, also intensified. Nevertheless, it can be noted that international cooperation in the field of ecology is far from perfect.

What measures are being taken to solve these problems?

First of all, hopes for solving problems are connected with the development of energy-saving technologies and bringing clean energy sources to the level of industrial capacities. The development of electric vehicles, the expansion of public electric transport will gradually purify the air of cities. Solar panels and wind power plants should reduce, and eventually reduce to zero, the burning of fuel in thermal power plants, which now produce the lion's share of electricity in the world.



Any attempts to recycle garbage or recycle it without waste are now very valuable. Especially considering the fact that a significant part of the garbage, these things are quite suitable, thrown away simply because they are replaced by new ones. All that can be made from recyclables, you need to make from recyclables - this is now the main slogan. Of course, household waste is only a small part of the problem.



Still unresolved issue is the processing of plastic and rubber. Here, great hopes are placed on biotechnology, which, I want to believe, will allow either to recycle these debris, or somehow integrate them into the environment.

It is necessary to note an important fact. Whatever programs are carried out by states, that would not be promoted to us from television screens and on the streets of cities, the salvation of our planet depends on each of us. Let the contribution of each will be small, but together we can make this world a better place, save our planet!





*Жер шарының тағдыры өз қолымызда!
Судьба нашей планеты в наших руках!
Together we will change the World!*