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ECOLOGICAL FOOTPRINT

АННОТАЦИЯ

В этой статье описывается влияние человечества на природу, которое можно оценить с помощью экологического следа. Автор рассказывает об истории этого термина, даёт его определение и упоминает о понимании экологических проблем.

ABSTRACT

This article describes the influence of humanity on nature, which can be measured with ecological footprint. The author mentions the history of this term, its definition and the understanding of environmental problems.

КЛЮЧЕВЫЕ СЛОВА: ЭКОЛОГИЧЕСКИЙ СЛЕД; ПОТРЕБЛЕНИЕ; ВЛИЯНИЕ; ПРИРОДНЫЕ РЕСУРСЫ.

KEY WORDS: ECOLOGICAL FOOTPRINT; CONSUMPTION, INFLUENCE; NATURAL RESOURCES.

With modern way of living the influence of humanity on our nature grows. Every action can bring a certain impact on it. It depends on what kind of car we drive, where we buy our food, how much electricity we use.

Nowadays, with developing of globalization and urbanization processes, people face a huge amount of problems, among which are deforestation, the lack of water, air and soil pollution, the disappearance of endangered species, climate change and the disasters caused by human activity.

Moreover, the population and the consumption in different regions of our planet grow, so the negative impact of humanity on nature increases rapidly.

According to researches by World Wildlife Fund, the usage of natural resources since 1970 to 2000 has risen by 50 percent.¹

¹ What is an Ecological Footprint [Электронный ресурс] / URL: GDRC.org: <https://www.gdrc.org/uem/foot-prints/what-is-ef.html> (дата обращения: 26.11.2018).

All of these factors made people understand, how important wildlife and nature itself are. At first some countries tried to change their own environmental policies in order to change the situation. Nevertheless, it was not enough, so states started to cooperate in their efforts.

Many scientists started to investigate the roots of the problems. Some of them wanted to estimate the impact of humanity on our planet, but there were no tools for such accounts.

In 1992 Dr. William Rees and Mathis Wackernagel, who worked at the University of British Columbia, invented ecological footprint analysis, which provided society with the instrument of measuring such influence.

Ecological footprint is a measure of ecological ability to regenerate. It shows the amount of bioproductive land and sea areas that can provide the resources for our consumption and to mitigate associated waste.²

The ecological footprint is measured in global hectares. These are biologically productive areas with world average biological productivity for a given year. The average calculations are required because biocapacity of different landscapes are not equal.³

To understand, what are the threats to our planet and how to decrease them, scientists found a way to estimate the impact of a person, a city, a country and even of humanity itself. People need natural resources and raw materials to produce more goods, and it damages our planet. Moreover, the question of recycling is still the most pressing issue of ecology.

Biocapacity shows us the ability of the Earth to manage the pollution and to produce more resources. To measure it, the researchers compare two factors:

- 1) how fast we consume resources and generate waste;
- 2) how fast nature can absorb our waste and generate new resources.

² Ecological footprint [Электронный ресурс] / URL: Environment and Ecology: [http:// environment-ecology.com/ecology-writings/598-ecological-footprint.html](http://environment-ecology.com/ecology-writings/598-ecological-footprint.html) (дата обращения: 25.11. 2018).

³ Glossary [Электронный ресурс] / URL: Global Footprint Network: [https://www. footprintnetwork.org/resources/glossary/](https://www.footprintnetwork.org/resources/glossary/) (дата обращения: 26.11.2018).

But biocapacity across the globe is not equal. For example, forests and croplands are more productive than deserts. To count biocapacity, scientists measure only the most productive territories, because they supply us with far more resources than glaciers or the open ocean.

Climate and landscape play a huge role in counting biocapacity of certain country. The states, which have fertile soil and the access to the sea, use more natural resources such as fruits, fish, wood and others. It shows that they don't need to produce synthetic goods or buy products abroad.

Moreover, the carbon dioxide absorption of lands with forests and flora is high. All combined they create ecological reserve. The negative influence of such states can be amortized by their ecosystems.

Other countries exceed and overuse their natural resources. They may not have enough forests or they just harm and pollute their ecosystems. It leads to ecological deficit.⁴ By comparing ecological footprints of different countries, we can understand, which of them care about ecology, and what states should pay attention to their policy.

For example, Russia has biocapacity reserve due to its natural abundance. The USA and China suffer from ecological deficit, because they are industrial nations, that's why they exceed natural resources. The majority of European countries have eco deficit, too, though they try to reduce their negative influence by eco-friendly policies.⁵

Every person can check his or her ecological footprint. There are a variety of tests around the web, by passing which you get your result. Mostly, such tests consist of questions about the use of water and electricity, the recycling of waste, the heating system and favorite transport.

⁴ Ecological footprint [Электронный ресурс] / URL: Global Footprint Network: [https:// www.footprintnetwork.org/our-work/ecological-footprint/](https://www.footprintnetwork.org/our-work/ecological-footprint/) (дата обращения: 25.11.2018).

⁵ Ecological Footprint Explorer [Электронный ресурс] / URL: Global Footprint Network: <https://data.foot-print-network.org/#/> (дата обращения: 25.11.2018).

By answering these basic questions, you can get to know about your influence on nature and understand, what you should change in your lifestyle in order to save the planet for future generations.

Even though the humanity has such a negative impact on the planet, we still have time and opportunities to change the situation. We have a lot of ways to reduce your ecological impact. Firstly, the waste (especially plastic) need to be recycled. It is better not to buy goods in plastic packages at all. Plastic cannot dissolve by itself, that is the reason why the issue with plastic waste is so pressing. Moreover, cooking by yourself helps to save more money and protect the environment, because you are sure about the sources of the ingredients.

Secondly, try to waste less paper. Every sort of information can be opened by gadgets. In addition, instead of buying new books you can visit local library.

Thirdly, cut down costs for electricity and water. Sometimes we don't understand how many resources we waste. By controlling this process, you can help your planet and your wallet.

To sum up, the negative influence on nature grows every year. It is time for the population of the world to understand the consequences of their behavior and to take actions. Every person can make our world a better place to live in.

SOURCE LIST

1. Ecological footprint [Электронный ресурс] / URL: Environment and Ecology: <http://environment-ecology.com/ecology-writings/598-ecological-footprint.html> (дата обращения: 25.11.2018).
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