

# Economic development and ecology

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**Annotation.** One and the most important challenges facing humanity is ecology. Modern people cannot imagine their lives in urbanized cities without convenient technological equipment making their lives easier but also destructively polluting the around. Nowadays, the atmosphere pollution level in large cities peaked to real harm to human health, raising issue of purity of the atmospheric air and water more acutely then ever. However, how can they be preserved? To date, there is a number of organizations, claiming they struggle for the environmental protection. Do they really help nature? People investing money into their projects may just waste their time and resources.

**Key words:** global problem, economics, ecology, Greenpeace, nature, air pollution, preservation of biological diversity, 21<sup>st</sup> century, Trend Economy, Earth, human health, animals, Landsat, harmful substances.

This year was named “The year of ecology” in Russia, making environmental issues more topical than ever before.

The article is based on number of researches of ecological issues and current state of affairs in this regard coming from Ecology Global Network, Greenpeace, Ecological Reviews by British Ecological Society. Some data is taken from the world-acclaimed research of Stuart L. Pimm, an American-British biologist and theoretical ecologist specializing in scientific research of biodiversity and conservation biology, as well as works of Edward J. Laurent, a Spatial Ecologist who develops and delivers collaborative, science-based recommendations and tools that enable the implementation and evaluation of conservation activities.

The present research is mainly done through data selection, statistical analysis, comparison and induction.

One may bask on imagining a beautiful world with picturesque landscapes and quiet, peaceful villages and towns without modern machines. No cars run on the highways, no tedious-hours traffic jams breathing out carbon dioxide and other harmful gases plague the roads. This quiet world is shorn of planes, helicopters or trains with their humming all over. No doubt, everybody would like to live in such a healthy world. Is it possible now that we have entered the 21<sup>st</sup> century then? Do such clean places exist anywhere?

They can only be found deep in the taiga and jungle wildness. The rest of the world is badly polluted. However, regions with rather good ecologic situation are still claimed to exist.

There is no comprehensive framework for evaluation of environmental friendliness. The currently existing measurements were invented in favor of NGO’s (Non-governmental organization) interests. One thing that we can do is to compare where it is worse to live and where it is better. Anyway, the American edition of « Forbes» keeps its eyes on the world purest places, publishing regular rating of the most environmentally friendly countries in the world.

Switzerland is ranked the first. 6% of fresh water in Europe is in Switzerland and about 25% of the territory is covered with forests. The next nice place is Sweden where the lakes occupy approximately 9% of the territory, and forests cover as much as 57%. Norway takes the third place. This country is bordered by the Barents Sea, the Norwegian Sea, the North Sea, and Skagerrak. The Republic of Costa Rica, where the Pacific Ocean washes shores from the south and west and the Caribbean Sea – from the east. Colombia is the nicest place in Latin America. The environment of Colombia is a guarantee for public health. Altitudes reach more than 5,700 m above the sea, mountain peaks permanently covered with snow. The elevated basins and plateaus of these ranges have a moderate climate that provides pleasant living conditions, enabling farmers to harvest twice a year. New Zealand is much ahead of other countries in the region in terms of the cleanliness index due to the quality of water and air. The Republic of Croatia, the closest European analogue, is a country in South-Eastern Europe, washed by the Adriatic Sea.

Nevertheless, these countries still have ecological problems encountered. People cannot imagine their lives in urbanized towns without modern machines which, of course, make it easier to live but also do destructively polluting job.

The fact is that internal combustion engine machines have a complex effect on the atmosphere, throwing out not only carbon dioxide but also, nitrogen oxides, carbon monoxide etc. In addition, short-lived aerosols and their derivatives, carbon black and sulfur dioxide also have a cooling effect on the temperature of the air masses. Atmospheric emissions of air transport affect the stratospheric concentration of water vapor and affect the formation of cirrus.

2% of all CO<sub>2</sub> emissions come from planes. In Europe, where there are a lot of frequent flyers, this proportion is higher. On average, about 28 000 flights a day across European airspace emit about 560 000 tons of carbon dioxide, which is one third of the world emissions. Globally cars are cranked out at the speed of one car per minute, day and night. The total number of cars running Earth is expected to reach billion by the end of the second decade of the XXI century. As the car fleet grows, a significant drawback of the internal combustion engine became apparent. Substances with exhausting gases from this engine harm human health. According to statistics, each car emits more than 3kg of substances daily.

Polluted air annoys respiratory tract most of all, causing bronchitis and asthma. Harmful substances contained in the atmosphere affect a human body too because of the contact with the surface of the skin or mucous membrane. Along with the airway organs, these substances affect the organs of sight and smell, and, acting on the mucous membrane of the larynx, can cause spasms of the vocal cords.

Together with this, a contemporary person is not accustomed to 100% pure ecological environment and is extremely unlikely to find it comfortable.

In such case, do we really have a problem and how we can solve it?

To the date, there is a number of organizations, claiming that they struggle for the environmental protection. The most famous of them is Greenpeace. It is an independent global campaigning organization aiming to change attitudes and behaviour, to preserve the environment. It operates in more than 55 countries across Europe, America, Asia, Africa and the Pacific.

The official website of Greenpeace states: *«To maintain absolute independence Greenpeace does not accept money from companies, governments or political parties. We're serious about that, and we screen for and actually send checks back when they're drawn on a corporate account. We depend on the donations of our supporters to carry on our non violent campaigns to protect the environment.*

*Our books are audited every year, in every office around the world, and we publish our [Annual Report](#) on the web every year so you can see exactly how much money we're given and how it gets spent» [1].*

**Table 1.** The reports from 2003 to 2015  
(Collected by Alina V. Sdvizhkova based on Greenpeace annual reports)

Year	Total income (Euros, thousands)	Fundraising expenditure (Euros, thousands)	Total non-fundraising expenditure (Euros, thousands)	Surplus (Euros, thousands)
2003	163,439	42,947	111,082	9,410
2004	162,043	43,005	111,126	7,912
2005	173,464	44,054	119,667	9,743
2006	177,021	49,205	122,848	4,968
2007	212,316	55,648	131,031	25,637
2008	202,563	60,332	141,498	734
2009	199,857	63,149	138,456	- 1,748
2010	230,557	68,837	139,493	22,227
2011	241,114	77,267	159,867	3,981
2012	268,325	90,874	183,477	-6,025
2013	288,360	98,800	193,932	-4,372
2014	296,626	107,033	185,514	4,079
2015	346,148	116,599	204,580	24,969

Counting all the losses from the crisis years, you will get 12 145 000 euros, but calculating all the surpluses from 2003 to 2015, you will get 846 926 000 euros, well enough to cover the reported losses. In that case, where did the rest of the money go? Is still unclear.

Over the past 10 years, the Earth has changed greatly, and not for the better, as shown by several satellites launched into space since 1972 within the American program «Landsat», which now allow high-resolutions pictures of the Earth from space.

The fact is that naturalness is gradually erased from the face of the Earth. Lakes are dried, forests are cut down to construct cities and, of course, harmful substances are emitted into the atmosphere every day, destroying the nature. Everything is just getting worse. Then what did Greenpeace do? Is still unclear.

The next important global problem facing humanity is the preservation of the Earth's biological diversity. Some claim that the extinction of each species is the outcome of human progress. Others say that species extinction is a natural process. However, only nature determines which of the species will survive. Anyway, millions were invested into Greenpeace's projects of animals protection, but no visual outcome is still reported.

From various sources we can find a very diverse list of extinct animals. The following 10 quite livable species of animals died out only in the last two decades:

1. Baiji or Yangtze River Dolphin
2. Pinta Island Tortoise

3. Western Black Rhinoceros
4. Caribbean Monk Seal
5. Canarian Oystercatcher
6. Ivory-billed Woodpecker
7. Mariana Mallard
8. Dusky Seaside Sparrow
9. Mexican Grizzly Bear
10. Javan Tiger

It means that people invest money into animal protection projects, not thinking about the real reasons for their death. The investments for nature preservation have become a fashion. Nevertheless, the number of endangered animals is growing every year, almost in pace with growth of investments into Greenpeace. Moreover, the concept “I’ve paid, so I can kill and litter” is forming in the people’s minds.

The current picture that has developed in nature raises worries not only about further life on the Earth, but also about what Greenpeace does with the money of investors.

Today, Greenpeace is mainly engaged in lobbying. Lobbying is the attempt to influence business and government leaders to adjust legislation or initiate certain regulations in favor of particular organization. This can be seen even from the article that Greenpeace posts on website about China’s hazardous chemicals facilities: «China has averaged 29 chemical accidents a month in the first 8 months of 2016 alone causing the deaths of 199 people and 400 injuries. Put into context, that averages to 1 death or injury every 10 hours <...> What’s more, 5,339 of China’s major chemicals companies operate in core ecological areas and more than half are located within 2km of major rivers, posing significant risk to human health and the environment <...> ...people have no way of knowing whether they are living and working in close proximity with potentially dangerous chemicals facilities. <...> That is why the next phase in the mapping is so important. We are creating a user-generated mapping system that will allow the public to contribute and scrutinise information on the whereabouts of chemicals facilities in their areas. we can start to fill in the information gaps and fully understand the true extent of China’s chemicals problem and move towards a safe future.

*As China’s chemicals industry grows, so too does the potential to do enormous harm to public health and environmental safety. Change needs to happen and it needs to happen fast. Both the government and the chemicals industry have a duty to take precautionary action and provide us with the information necessary to protect ourselves and our environment. Until they do, it falls to us to seek the truth for ourselves».*

The final lines clearly say Greenpeace did nothing except collecting statistical data. They created a mapping system that would help to monitor environmentally unsafe areas. However, every ten hours someone gets injured or even dies. It is obvious that those ventures and factories, damaging human health and leading to death, should be shut down or reequipped to lower environmental harm inflicted.

It probably means that if we want to make the world a better place, we should not give money to someone else who claims to safeguard the ecology. Start with ourselves and do something good for the Earth. Organize volunteer clean-up campaigns, pick up rubbish within the community, clean riverbanks and forests, plant trees or, at least, have your own wastes recycled.

**References**

- [1] *Tolikov V.N., Smolina E.E.*, “Economics of Ecology” / Bulletin of Tambov University. 2008.
- [2] *Zokirov R.S.*, “Problems of ecology of city environment” / Bulletin of the Tajik State University of Law, Business and Politics. 2010.
- [3] *Chuikov Yu.S.*, “Modern ecology: the structure of the ecological knowledge” / Astrakhan bulletin for Environmental Education. 2001.
- [4] *Chuikov Yu.S.*, “What is the Ecology of the Techno sphere? “ / Astrakhan bulletin for Environmental Education. 2012.