

# YOUTH OPPORTUNITIES AND ACHIEVEMENTS IN THE ECOLOGICAL DOMAIN

**Daniela PARA<sup>\*</sup>, Elena BOBEICO<sup>†</sup>**

## **Abstract**

*This paper analyzes the magnitude and significance of environmental issues, which our world is facing, as well as concrete steps and activities, supported by the European Union, that young people can do in order to contribute to the melioration of this serious problem. We analyzed the results of the survey, conducted on young people from our university, regarding their level of awareness regarding ecology and the available opportunities and programs, which they can join. Also, there are mentioned some projects and activities, which were implemented in the Republic of Moldova.*

*Keywords: environment, climate change, plastic, opportunities, youth, projects*

## **1. Introduction**

Ecological problems are one of the most discussed topics of our century. Together with enormous development in technologies and industrial boom, comes the global issue regarding climate. "We are the first generation to feel the effect of climate change and the last generation who can do something about it." (President Obama, 2014), and we think that this statement perfectly describes the situation we are currently facing.

Even though, from ancient times, the mankind tried to model the laws of nature, which had to be respected in order to survive, in the last two centuries our attempts to dominate it changed the general course, creating a list of issues with extreme consequences. We reached the ecological crises step by step, it is not a one-day process. That's the main reason why it is important for us to fully understand the consequences of our actions locally, at the beginning, and then globally.

## **2. Environmental problems.**

United Nations considers that the most serious problems faced by humanity in the 21st century are the climate change, the desertification of soil, the ozone depletion and plastic pollution. These phenomena are determined by the essential changes that occur in nature under the influence of people, which in the last decades of the 20th century, have reached dangerous levels in comparison with the normal pace of the evolution of life on Earth.

---

<sup>\*</sup> Daniela PARA, student at the faculty of International Economic Relations, ASEM, Chisinau, Republic of Moldova

<sup>†</sup> Elena BOBEICO, student at the faculty of International Economic Relations, ASEM, Chisinau, Republic of Moldova

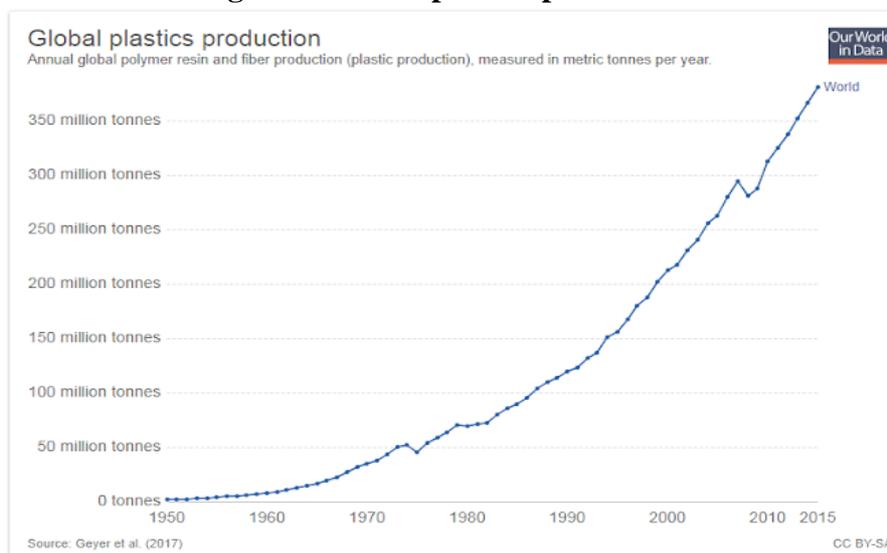
In order to stop these phenomena, the International Community has developed and adopted Rio Conventions - documents that aim at the first stage to stabilize, and then to reduce the anthropogenic impact on nature on a global scale.

All environmental issues have a local origin, but they can affect a much larger area, so the consequences of the impact can have local, international and global implications. That's why the actions expected to oversee and prevent the widespread effects of local problems have been elaborated and taken under control by regional and global conventions.

According to the Britannica Encyclopedia, plastic pollution is the accumulation in the environment of man-made plastic products to the point where they create problems for wildlife and their habitats as well as for human populations”.

In 1950 the world produced only 2 million tones per year. Since then, annual production has increased nearly 200-fold, reaching 381 million tones in 2015. For context, this is roughly equivalent to the mass of two-thirds of the world population.

**Figure 1. Global plastics production.**



**Source:** <https://ourworldindata.org/plastic-pollution#note-3>

The average time for a plastic bottle to degrade completely is approximately 450 years. Scientists believe that climate change which is caused by the global warming will have a very violent and dramatic tendency in the near future. If the whole population of Earth won't change its actions in order to decrease the global temperature, then the consequences will be very tragic for the mankind.

According to a recent report of United Nations, executed by their experts in climate change, the Earth has only 12 more years of keeping the global temperature increase of 1.5 degrees Celsius. Thereby, in the case of overcoming this degree by even 0.5 degrees Celsius, for hundreds of millions of people, the risk global poverty, caused by the numerous ecological problems, will increase and become a real one.

“This issue is very serious because we know that there are much more problems if we exceed the threshold of 1, 5 degrees Celsius, including heat and hot summers, water level increases and, in many parts of the world, extreme droughts and rainfalls.” (Andrew King, lecturer at Melbourne University, as per HotNews).

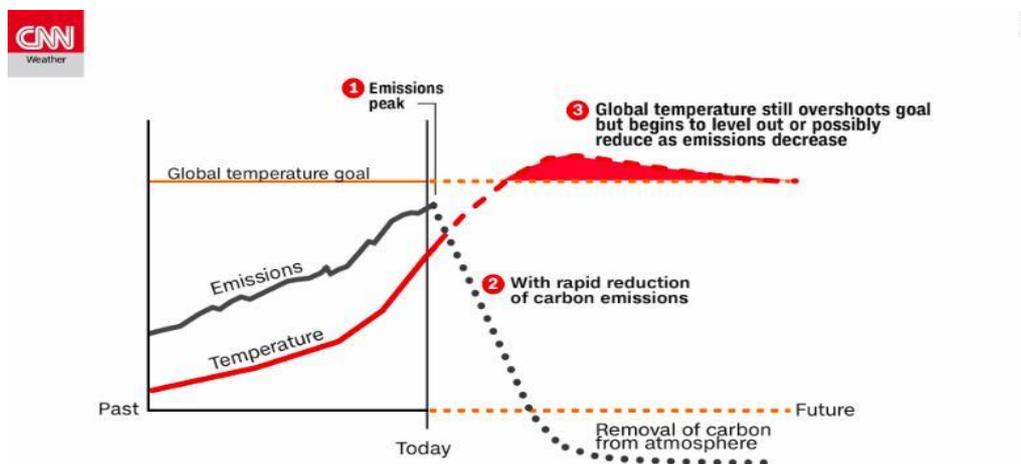
Net carbon emissions should globally drop by 45 percent from 2010 to 2030 and reach a "zero net" in 2050 to keep global warming at 1.5 degrees Celsius. Also, a half-degree difference could prevent the complete eradication of corals.

The General Secretary of the World Meteorological Organization Petter Taalas said in Geneva that "there is a clear need for greater ambition to reach even a Celsius threshold, because at this moment we are going to 3 up to 5 degrees. The last 18 years have been the warmest since the measurements began in 1850." (Petter Taalas, 2018)

Unless changes are made, the high level will increase by 10 cm till 2100, the probability that the Arctic Ocean will not have glaciers during summers from once every decade to once in the century will appear.

According to the same report, there are two key ways to remove carbon in the atmosphere: increased natural processes and experimental storage or carbon removal technologies.

**Figure 2. The forecast of consequences of increasing of temperature.**



**Source:** <https://edition.cnn.com/weather>

The researchers explained the increase in temperatures and extreme phenomena through greenhouse effect and fossil fuels.

Another important issue is desertification of soil. Considerable controversy exists over the proper definition of the term "desertification" for which Helmut Geist (2005) has identified more than 100 formal definitions. The most widely accepted of these is that of the Princeton University Dictionary which defines it as "the process of fertile land transforming into desert typically as a result of deforestation, drought or improper/inappropriate agriculture"

Desertification has been neatly defined in the text of the United Nations Convention to Combat Desertification (UNCCD) as "land degradation in arid, semi-arid and dry sub-humid regions resulting from various factors, including climatic variations and human activities."

Nearly 3.6 billion of the 5.2 billion hectares of arable land in the world suffered from erosion and soil degradation. In more than 100 countries, 1 billion of the world's population of 6 billion is affected by desertification, and people are forced to leave their farms for city jobs.

Desertification takes place in dry lands where the land is particularly fragile, where rainfall is rare and the climate is harsh. The result is destruction of the fertile layer followed

by loss of soil capacity to harvest crops, pastures or other human activities. The economic impact is terrible, with losses of more than \$ 40 billion per year in agricultural goods and an increase in agricultural prices.

Climate change may precipitate desertification, but human activities are the most common cause. Over-cultivation depletes the soil. The deserts remove the trees that support fertile soil from the soil. The overgrazing of the pastures unleashes the grassland. According to a UN study, about 30% of the land - including 70% of land - is affected by drought. Every day, nearly 33,000 people die of hunger.

Desertification creates conditions that intensify fires and strong winds, adding to the immense pressure on the most precious resource of the earth, water, and of course the animals that depend on it. According to the World Wide Fund for Nature, the world lost 30% of its natural wealth between 1970 and 1995.

Dust from the desert and the dry land are suffocated in cities everywhere. Dust from Africa reaches Europe with the Pasat wind, and even in American cities. Dust particles, which are less than 2.5 millionth of a meter, are inhaled, causing health problems and have been shown to increase the mortality rate.

Desertification affects 74% of the land in North America. In Africa, more than 2.4 million acres of land (73% of land) are affected by desertification. Desertification devours more than 20,000 square miles of land every year every year. Just 5,000 years ago, Sahara was covered with herb shrubs.

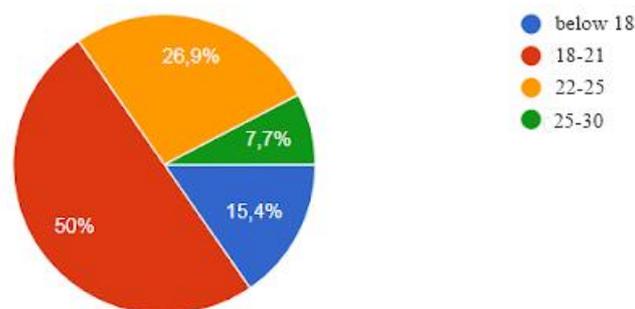
Desertification can be stopped, but unfortunately it is usually brought to the attention of the public when the process is already well advanced.

### 3. The analysis of questionnaire

In order to asses this problem in a more practical way, we created a questionnaire to see how the youth in Moldova is aware of ecological problems, and if people know about different projects in which they can participate, related to this topic. From the diagram bellow, we can show our target group, which are young people. We distributed the questionnaire among our peers and friends, and the results were unexpected.

First of all, these are the age details of those who participated in the survey, 26 participants completed the questionnaire, from which 50% are those between the ages of 18-21. 26, 9% fell under the age limit of 22-25, 15,4% under the age of 18 and least represented age group was 25-30, with 7,7 %.

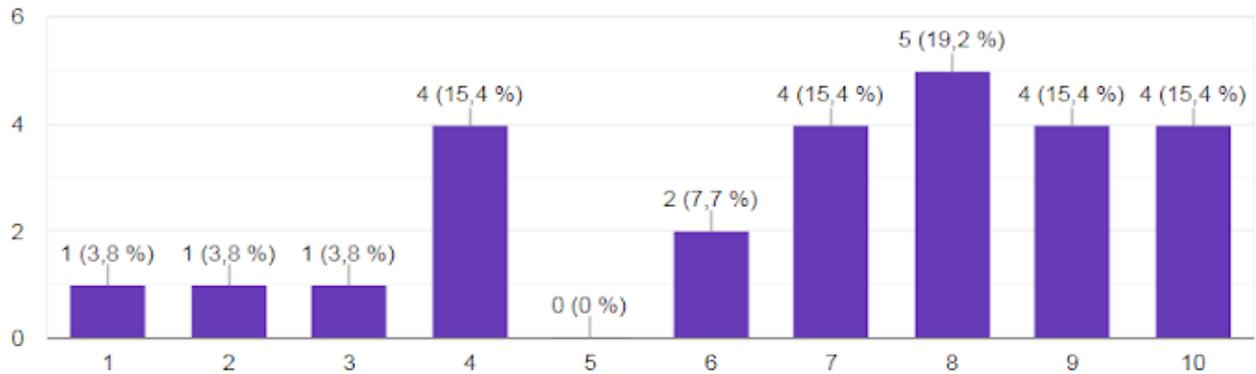
**Figure 3. The age of the target group**



*Source:* elaborated by authors based on the results of the questionnaire.

The participants showed to be quite informed about the environmental problems which are happening around the world. We asked them to appreciate their knowledge regarding ecology, by choosing in a scale from 1-10, 1 being not informed at all and 10 being completely aware about the situation. We highlighted that the majority knows about the issues regarding the environment, as 73,1% of participants assessed their knowledge to be over 5.

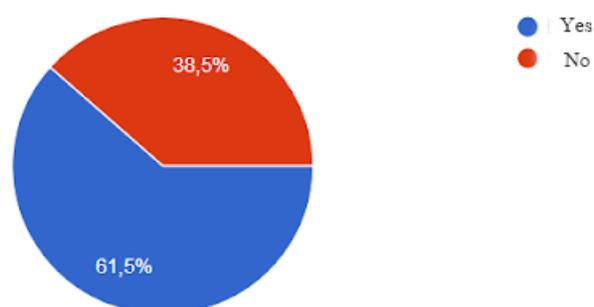
**Figure 4. The results based on the question of how aware are the participants of the ecological problems.**



*Source:* elaborated by authors based on the results of the questionnaire.

Also, based on the results, we can see in the Figure 5 that the youth is aware about climate change and considers it being a real and acute problem for the Earth. The majority, which is 61,5%, do believe that climate change is real, and is one of the most actual and important issues that we are currently facing. We consider it a good result, taking into account the lack of awareness about environmental issues in our educational system.

**Figure 5. The results based on the question if people consider climate change being an important problem for the Earth.**

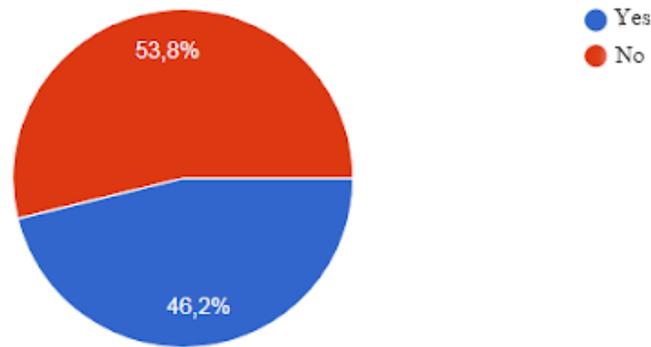


*Source:* elaborated by authors based on the results of the questionnaire.

An important aspect in our survey is to find out if young people in Moldova know about projects and different opportunities implemented both on local and international level. The results displayed in the Figure 6 show that 53,8 % of people who participated in the survey don't know about the possibilities to participate in projects and campaigns organized by European Union. This can be either because of the lack of interest towards this issue, or due to the low level of promotion.

In conclusion, we can see that the youth in Republic of Moldova is aware about the ecological problems, considering them actual and as a significant threat to our planet. However, young people do not know about different opportunities and environmental projects organized by EU, both on the international and national level, and that by participating in them, they can actually start changing the situation in a better direction.

**Figure 6. The results based on the question if people know about environmental projects in Moldova organized by European Union.**



*Source:* elaborated by authors based on the results of the questionnaire.

In the next chapters, we will provide more information about the European Union's environmental policy and present some environmental projects organized in the Republic of Moldova, where young people can get involved and contribute to the creation of a better and sustainable future.

#### 4. European Union's environmental policy

The EU adopted the 7th Environment Action Programme (EAP) , with the generic "Living well, within the limits of our planet", which will be guiding European environment policy until 2020. In order to give more long-term direction it sets out a vision beyond that, of where it wants the Union to be by 2050:

"In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society."

It identifies three key objectives:

- to protect, conserve and enhance the Union's natural capital
- to turn the Union into a resource-efficient, green, and competitive low-carbon economy
- to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing

Four so called "enablers" will help Europe deliver on these goals:

- better implementation of legislation
- better information by improving the knowledge base
- more and wiser investment for environment and climate policy
- full integration of environmental requirements and considerations into other policies

Two additional horizontal priority objectives complete the programme:

- to make the Union's cities more sustainable
- to help the Union address international environmental and climate challenges more effectively.

The programme entered into force in January 2014. It is now up to the EU institutions and the Member States to ensure it is implemented, and that priority objectives set out are met by 2020. (<http://ec.europa.eu/environment/action-programme/>)

LIFE is the EU's financial instrument supporting environmental, nature conservation and climate action projects throughout the EU. Since 1992, LIFE has co-financed more than 4500 projects. For the 2014-2020 funding period, LIFE will contribute approximately €3.4 billion to the protection of the environment and climate. (<http://ec.europa.eu/environment/life/>)

A major role in solving the environmental issues is the education of young people, who are able to make a change. So, EU's major funds; Erasmus+ and EYF allocate grants for Training Courses, Youth Exchanges and Study Sessions, where the main topic can be the environment. These activities enable the participants to learn more about the issues, interact with other young people coming from different countries and getting a better overview of the problem and its dimensions and other regions, and acquiring new tools and skills to organize concrete actions, which will contribute to the melioration of the problem.

## **5. Environmental project in Republic of Moldova**

In the Republic of Moldova, there are a lot of organizations working on the topic of environment (Republican Centre "Gutta-Club", MEGA, Mișcarea ecologistă din Moldova, P.A. Ecovisio etc.) and Ecopresa.md, which is the first and the biggest website dedicated to news related to the environment.

The Republican Centre is a public, independent, non-profit organization, working on the topic of environmental education and the development of the third civil sector, in order to build a sustainable future and raise active citizens.

In 2011 Gutta-Club won an educational component tender in the project Energy and Biomass funded by the EU and United Nations Development Programme (UNDP). It presupposes increasing the level of energy using in the Republic from renewable energy sources, in particular straw, to strengthen energy security in the country. As part of this component, there has been created a study book Renewable Energy Sources and a teacher's guide that, as agreed by the Moldovan Ministry of Education, will be distributed to all the schools in the Republic. There has also been held a competition of works dedicated to energy conservation among school children of the 7th and 8th grades in 38 pilot schools of Moldova that are participants of the project. 76 winners were invited to take part in a summer eco-camp Energel led by the Gutta-Club members. Case studies on renewable energy sources constructing, a real research and practice conference, eco campaign for cleaning Ștefan Vodă, scientific experiments, excursions, role plays and competitions.

The project "Climate Ambassadors", which was organized in 2016-2017, had the aim to educate the young leaders and to empower youth climate networking. It consisted of a summer school for 100 youngsters, 15 local actions which were organized across the whole Republic of Moldova and the publication of a guide.

Besides many projects which are implemented regarding the environments, there are a lot of local events which have the aim to raise awareness regarding these issues.

An annual festival which is organized in Chisinau is SUN Dă-I FEST, which is funded by the EU. It is a good opportunity for people to discover the benefits of the renewable energy, by participating in different workshops and interactive games. Visitors have the chance to discover eco-designed and created innovations by young people from schools and universities. Micro-hydro power plants, wind turbines built from waste, solar parabolic antenna, solar furnaces, robots, remote energy monitoring systems, home-only models that consume only renewable energy are some of the innovations exhibited by young people in the Republic of Moldova. The festival culminates with a live concert, where the musical instruments use just solar power energy.

Other events are the Earth Hour, Velohora, World Environment Day, where young people can attend as participants or as organizers and volunteers.

## 6. Conclusion

In conclusion, we can see that the environmental problems have a big impact on our surroundings, as well as on the human population, that's why it is crucial to start changing our lifestyle, in order to meliorate this issue. The majority of young people are aware of the environmental problems which the world is facing, however they are not informed about the measures which can be taken, as well as different projects and opportunities from which they might benefit. The European Union works hard on this topic, within the framework of the 7th Environment Action Programme, and supports a lot of international projects dedicated for young people, related to the environment. Moreover, there are a lot of opportunities to get involved on the local level, as Republic of Moldova is the hub of many environmental organisations, who are organizing different events, actions and workshops. We encourage everyone to assume responsibility of his actions, taking into account the environmental impact and to get more involved in the activities related to the ecology.

## References:

- Danilova D. (2018). Scientific article, [https://zugo.md/article/foto---planeta-va-atinge-pragul-crucial-inca-pana-in-2030--ce-se-va-intampla-daca-nu-vom-face-schimbari-rapide-\\_30366.htm](https://zugo.md/article/foto---planeta-va-atinge-pragul-crucial-inca-pana-in-2030--ce-se-va-intampla-daca-nu-vom-face-schimbari-rapide-_30366.htm)
- European Commission, Life Programme, <http://ec.europa.eu/environment/life>
- Galloway T.S. (2015) Micro- and Nano-plastics and Human Health. In: Bergmann M., Gutow L., Klages M. (eds) *Marine Anthropogenic Litter*. <https://www.sciencedirect.com/science/article/pii/S0048969716310154>.
- King A. (2018). Interview in HotNews, <https://a1.ro/news/social/planeta-mai-are-timp-doar-pana-in-2030-pentru-a-evita-o-catastrofa-climatica-id808463.html>
- Li, W. C., Tse, H. F., & Fok, L. (2016). Plastic waste in the marine environment: A review of sources, occurrence and effects. *Science of the Total Environment*, 566, 333-349, [https://link.springer.com/chapter/10.1007/978-3-319-16510-3\\_13](https://link.springer.com/chapter/10.1007/978-3-319-16510-3_13).
- Moore C. (2018). Plastic pollution, <https://www.britannica.com/science/plastic-pollution>
- United Nations, Convention to Combat Desertification, <https://www.unccd.int/en/about-the-convention/Pages/Text-Part-I.aspx>