



<b>The Main Environmental Issues in the Constanta Area as Perceived by the Public Opinion</b> <i>(Magda Nenciu, Fokion K. Vosniakos, Tania Zaharia, Mariana Golumbeanu)</i>	<b>“Cercetari Marine” Issue no. 44</b>  <b>Pages 173-179</b>	<b>2014</b>
--	--	-------------

## THE MAIN ENVIRONMENTAL ISSUES IN THE CONSTANTA AREA AS PERCEIVED BY THE PUBLIC OPINION

**Magda Nenciu<sup>1</sup>, Fokion K. Vosniakos<sup>2</sup>, Tania Zaharia<sup>1</sup>, Mariana Golumbeanu<sup>1</sup>**

<sup>1</sup>*NIRDEP - National Institute for Marine Research and Development  
“Grigore Antipa”, 300 Mamaia Blvd., 900581 Constanta, Romania,  
Balkan Environmental Association, B.EN.A.*

*E-mail: magdalena.nenciu@gmail.com, mnenciu@alpha.rmri.ro*

<sup>2</sup>*Balkan Environmental Association (B.EN.A.)  
Alexander Technological Education Institute of Thessaloniki*

*P.O. Box 141, 57400-Sindos, Thessaloniki, Greece*

*Tel: +302310791420; Fax: +302310791300*

*E-mail: bena@gen.teithe.gr*

### ABSTRACT

Romania faces the challenge of environmental issues, doubled by an even more serious problem: the lack of environmental education. B.EN.A.'s endeavor within the training courses organized in Constanta in environmental professions is one huge step ahead in raising the awareness of people living in a country where environmental education is a black hole. The aim of the paper is identifying the most important problems concerning the environment in the Constanta area, by the means of a sociologic research carried out among the trainees attending the course organized by B.EN.A. The results were not at all surprising, as the most pressing issues identified were the impact of pollutants on human health and waste management.

**KEY-WORDS:** environmental education, awareness, training, practice

### AIMS AND BACKGROUND

Protecting the environment that surrounds us has become one of the major concerns of modern society, due to the continuous and apparently unstoppable deterioration of the elements that are part of it. Similarly to the rest of the world, Romania faces this global challenge, but doubled by an even more serious issue: the lack of environmental education. One cannot protect the environment if he/she is not



aware of the problems that have to be dealt with. That is why environmental education is essential in a modern community.

Our generation has witnessed unprecedented economic growth and technological progress, which, while bringing benefits to many people, have also caused severe social and environmental consequences. The recent United Nations Declaration for a New International Economic Order calls for a new concept of development - one which takes into account the satisfaction of the needs and wants of every citizen of the earth, of the pluralism of societies and of the balance and harmony between humanity and the environment. These new approaches to the development and improvement of the environment call for a reordering of national and regional priorities. Those policies aimed at maximizing economic output without regard to its consequences on society and on the resources available for improving the quality of life must be questioned. Before this changing of priorities can be achieved, millions of individuals will themselves need to adjust their own priorities and assume a personal and individualized global ethic - and reflect in all of their behavior a commitment to the improvement of the quality of the environment.

It is within this context that the foundations must be laid for a world-wide environmental education program that will make it possible to develop new knowledge and skills, values and attitudes, in a drive towards a better quality of environment and, indeed, towards a higher quality of life for present and future generations living within that environment (Palmer and Neal, 1994).

Environmental education is a process of developing a world population that is aware of and concerned about the total environment and its associated problems, and who has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively towards solutions of current problems and the prevention of new ones (UNESCO, 1978). Thus, the goal of environmental action is to improve all ecological relationships, including the relationship of humanity with nature and people with each other ([www.envir.ee](http://www.envir.ee)).

There are, thus, two preliminary objectives that each country should aim at: - according to its culture, to clarify the meaning of such basic concepts as “quality of life” and “human happiness” in the context of the total environment, with an extension of the clarification and appreciation to other cultures, beyond one’s own national boundaries; - to identify which actions will ensure the preservation and improvement of humanity’s potentials and develop social and individual well-being in harmony with the biophysical and man-made environment (Slingsby and Barker, 2005).

In this endeavor of developing environmental concerns, there are six milestones that must be reached, in order to build up a solid background, namely (Day and Monroe, 2000):

**Awareness:** help individuals and social groups acquire an awareness of and sensitivity to the total environment and its allied problems.

**Knowledge:** help individuals and social groups acquire basic understanding of the total environment, its associated problems and humanity’s critically responsible presence and role in it.



**Attitude:** help individuals and social groups acquire social values, strong feelings of concern for the environment and the motivation for actively participating in its protection and improvement.

**Skills:** help individuals and social groups acquire the skills for solving environmental problems.

**Evaluation ability:** help individuals and social groups evaluate environmental measures and education programs in terms of ecological, political, economic, social, esthetic and educational factors.

**Participation:** help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems, to ensure appropriate action to solve those problems.

The main target of environmental education is the general public. Yet, within this global frame, there are two major categories:

**The formal education sector:** including pre-school, primary, secondary and higher education students as well as teachers and environmental professionals in training and retraining (the situation hereby, Pimentel et al., 1996) ;

**The non-formal education sector:** including youth and adults, individually or collectively from all segments of the population, such as the family, workers, managers and decision makers, in environmental as well as non-environmental fields.

Environmental education activities are easier to start in the non-formal education system, through youth group activities, religious communities, extension visits, agency outreach materials and field visits to museums and zoos (Palmer and Neal, 1994). But it can be pushed one step further, which is exactly what the Balkan Environmental Association is doing in its training centers.

They develop and implement programs that engage learners in discovering information and developing skills to convert that information to meaningful practice. In this case, environmental education has a third important goal: **training professionals to consider the environment in their work.**

## **MATERIAL AND METHOD**

B.EN.A.'s endeavor within the training courses organized in Constanta in environmental professions is one huge step ahead in raising the awareness of people living in a country where environmental education is a black hole. In their never ending struggle for economic survival, people find little time for this type of concerns. Yet, during the courses, a questionnaire was distributed to the trainees, in order to identify which are the environmental problems they believe are most important for the town they live in. Surprisingly or not, after taking the time to think this matter over, they realized that the town of Constanta, Romania, is confronted with a great number of aspects influencing the environment, starting from wastes thrown randomly on the streets and getting to food safety or even energy and transportation.

The paper hereby is the result of analyzing 200 hundred valid questionnaire answers, throughout the years the training courses were held by B.EN.A., starting with the year 2004. The people that have filled in the forms so far are extremely different (high school graduates, unemployed people, teachers, higher education graduates, people working within oil companies, customs etc.). Thus, the answers they have provided cover a large layer of society, which can help us sketch an idea about how environmental issues are perceived in a community living in a seaside town at the Black Sea.

The method used was the sociologic survey. After having attended the course organized by B.EN.A within the National Institute for Marine Research and Development “Grigore Antipa” Constanta, the trainees were asked to fill in a questionnaire comprising a list of 16 environmental issues. They had to rank these issues from 1 to 10, from the most to the least severe. The 6 options left out for each questionnaire were given control values.

## RESULTS AND DISCUSSIONS

After a series of mathematical calculations, the final rankings revealed the way that the audience in the Constanta area perceives the severity of environmental problems. The results are given below (Fig. 1):

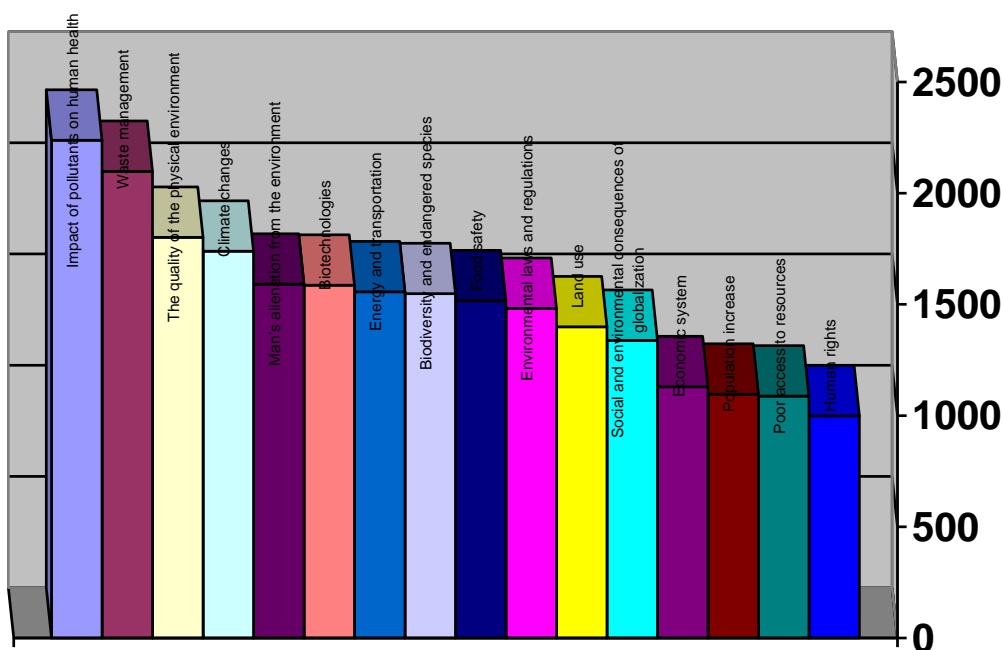


Fig. 1. Chart of the main environmental issues identified during the survey

**1. Impact of pollutants on human health** - 2,238 points - Pollution causes contamination and introduces impurities in the essential components of our ecological system. Any impurities and toxicities introduced by pollution on these natural resources have quite adverse and harmful effect on human health. These polluted resources when consumed by human, causes various health hazards and give rise to several short term and long term life threatening diseases.

**2. Waste management** - 2,098 points - Education and awareness in the area of waste and waste management is increasingly important from a global perspective of resource management. Waste management is an industry which revolves around the collection, storage and disposal of waste, ranging from ordinary household waste to the waste generated at nuclear power plants. Developing effective waste management strategies is critical for nations all over the world, as many forms of waste can develop into a major problem when they are not handled properly.

**3. The quality of the physical environment** - 1,802 points - The surrounding environment impacts deeply on the health and well-being of the people living in an area. It includes noise control, air and water quality, overcrowding etc.

**4. Climate changes** - 1,739 points - The UN defines climate change as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is, in addition to natural climate variability, observed over comparable time periods“. Its effects on the environment are extremely severe.

**5. Man's alienation from the environment** - 1,591 points - Man's alienation from nature has contributed significantly to the destruction of the environment, as the lack of a connection between the two has led to complete disregard of the modern man, living in his concrete, artificial dwellings.

**6. Biotechnologies** - 1,586 points - The UN Convention on Biological Diversity defines biotechnology as: “Any technological application that uses biological systems, living organisms or derivatives thereof, to make or modify products or processes for specific use“. Agriculture may be considered the primary form of biotechnology. For thousands of years, humans have used selective breeding to improve production of crops and livestock to use them for food. Biotechnology has applications in major industrial areas and environmental uses (it is also used to recycle, treat waste, clean-up sites contaminated by industrial activities - bioremediation). Yet, it can also be used to produce biological weapons.

**7. Energy and transportation** - 1,557 points - The search for clean energies, from renewable sources, is one of the most important issues currently, given the gloomy perspectives of fossil fuels exhaustion. Consequently, alternatives for “green“ transportation must be identified.

**8. Biodiversity and endangered species** - 1,548 points - A good state of the biodiversity is an indicator of a healthy environment, while the endangerment of more and more species is a matter of great concern for people living in the Constanta area.



**9. Food safety** - 1,516 points - The quality of our food is directly dependent on the quality of the environment it comes from. In this respect, people are aware of the dangers of contaminated food due to pesticides and other chemicals that not only destroy the soil, but are also a threat to human health, by accidental ingestion.

**10. Environmental laws and regulations** - 1,482 points - Pollution does not respect political boundaries, making international law an important aspect of environmental law. Other guiding principles of environmental legislation include the “polluter pays” principle, the precautionary principle, the principle of sustainable development, environmental procedural rights, common but differentiated responsibilities, common concern of humankind and common heritage. At the local scale, Romania is trying to comply with international environmental regulations, but their putting into practice still requires more effort.

**11. Land use** - 1,399 points - The current approach of urban planning is “smart growth”, characterized by the focus on more sustainable and less environmentally damaging forms of development. Unfortunately, in the Constanta area (especially in the Mamaia resort) (Neamtu and Neamtu, 2001), urban development has been done chaotically, resulting in constructions still being erected on the surface of the beach itself.

**12. Social and environmental consequences of globalization** - 1,338 points - Globalization is usually recognized as being driven by a combination of economic, technological, socio-cultural, political and biological factors. Since many factories are built in developing countries with less environmental regulation, globalism and free trade may increase pollution and impact on precious natural resources ([www.un-documents.net](http://www.un-documents.net)).

**13. Economic system** - 1,130 points - A developing economy will always cause damages to the environment, which is the case of the Constanta area. The technologies involved in the search for profit are not top class, which generates pollution.

**14. Population increase** - 1,096 points - As the world population continues to grow geometrically, great pressure is being placed on arable land, water, energy, and biological resources to provide an adequate supply of food while maintaining the integrity of our ecosystem ([www.wiley.com](http://www.wiley.com)). Furthermore, the number of people living in urban areas is doubling every 10 to 20 years (which is the case of Constanta, as the people in the villages of the county are moving to the city in search of jobs), creating major environmental problems.

**15. Poor access to resources** - 1,088 points - Competition for natural resources among individuals, regions and countries and associated human activities is already occurring with the current world population ([www.wiley.com](http://www.wiley.com)). Some natural resources, like water or marine fisheries, are mobile and diffuse, so that property rights are difficult, if not impossible to attribute.

**16. Human rights** - 999 points - Environmental human rights revolve largely around the idea of the right of people to live in a healthy environment, both for the present and the future generations.

## CONCLUSIONS

The aim of the paper was inventorying and identifying the most important problems concerning the environment in the Constanta area, but not in an abstract and academic manner, but by the means of a sociologic research on a representative sample of respondents. The findings were not at all surprising: the impact of pollutants on human health was identified as the most important environmental issue in the Constanta area, revealing the fact that humans are generally more concerned with the issue that affect them directly. Yet, it is a starting point, given the fact that, if we want to be healthy, we must do so that we live in a healthy environment. Waste management is also present in top 3, which confirms the increasing concern in this respect. People in Constanta are embracing selective waste collection (recently special trash bins were installed). Climate changes, felt by each and every individual, were also considered to be of interest, as well as all the other aspects that people in the area would like to know more about. Consequently, the results of the survey should be used in order to develop applied programs for raising the awareness of the public opinion for a better understanding of the environmental problems and of course, finding solutions in this respect.

## REFERENCES:

1. B. A. DAY, M. MONROE: Environmental Education and Communication for a Sustainable World Handbook for International Practitioners, GreenCOM, Washington DC, pp. 69-79 (2000);
2. L.NEAMTU, A.C. NEAMTU: Romanian Seaside Tourism between Survival and Recognition. A Successful Model in Improving the Romanian Sea Side, Journal of Environmental Protection and Ecology 10 (4): 1178-1186 (2009);
3. J. PALMER, P.NEAL: The handbook of environmental education, Routledge, pp. 3-18 (1994);
4. D. PIMENTEL, X. HUANG, A. CORDOVA, M. PIMENTEL: Impact of Population Growth on Food Supplies and Environment, presented at AAAS Annual Meeting, Baltimore, MD, 9 February 1996;
5. D. R. SLINGSBY, S. BARKER: The Role of Learned Societies, Government Agencies, NGOs, Advocacy Groups, Media, Schools and Environmental Educators in Shaping Public Awareness of Ecology, in E. JOHNSON and M. MAPPIN: Environmental education and advocacy: changing perspectives of ecology and education, Cambridge University Press, pp. 72-88 (2005);
6. <http://www.envir.ee/orb.aw/class=file/action=preview/id=1011467/The+Belgrade+Charter.pdf>;
7. <http://www.un-documents.net/s6r3201.htm> ;
8. Globalization of Water: Sharing the Planet's Freshwater resources|url=<http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1405163356.html>