
ECOLOGY AND THEOLOGY IN THE ROMANIAN CONTEXT OF EU INTEGRATION[†]

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Abstract

The article shortly presents the evolution of the ecological issue in Romania, during the two decades following the Revolution from December 1989. The focus is put on Moldova region with its main city Iasi. The role of the Government (local and national authorities), the Romanian Orthodox Church, universities, non-governmental organisations, and the media is also highlighted.

Keywords: pollution, environmental education, hydrogen energy, ecotourism, publisher

1. Romania at the gates of EU - environmental issues

In the second half of the last century, ecological problems started to appear and spread all around Romania together or more exactly as result of the forced industrialisation of the country.

An example is Copşa Mică, a typical Romanian town, which represents the standard of the martyr towns, victim of pollution [1]. Copşa Mică was known in the entire Europe as the most polluted locality of the 'old' continent until the nuclear accident from Chernobyl. Two great industrial factories: the metallurgic factory of non-ferrous metallurgy (M.F.N.M) and the plant 'Carbosin', producer of black smoke, were responsible for this situation.

Through the years, the authorities supervised the value of lead and cadmium from the surface waters, fountains but also from the potable water elaborated from the surface water source in Copsa Mica. The analyses have shown values ranging between 2 and 6.6 times higher than normal between 1978 and 1986. The record was established in 1979, with a value of 276.6 times the normal limit. In this case, the test was performed with water from the river Tarnava Mare, near the town Copsa Mica.

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Carbosin was making a pollution called optical pollution, which meant that the black smoke was indeed dangerous but not so like the high inorganic lead concentrations that we know. In winter, because of the plant Carbosin, the snow would be sometimes black and in the rest of year the trees and houses were covered in black. The stains from these decades of deposits are still visible.

The situation changed for good after the revolution from December 1989, but this was mainly due to the sharp decrease of the industrial production.

In 2005, Romania succeeded to finalise of the Environmental Chapter, which incorporates EU regulations into its own national legislation. Despite this promise of better environmental protection, numerous problems were identified.

These include numerous environmental and infrastructure problems but also a lack of environmental concern among the people. For example, according to a survey conducted among the students of the Technical University in Iasi indicated that majority of Romanians have low awareness regarding environmental inconveniences in general and the environmental impact of tourism in particular [2].

Among the above problems, we mention deforestation, poor waste management systems, littering, poor sewage systems, polluted rivers and soil pollution [2, p. 4]. If some of these come from communism times (e.g. soil and water pollution with nitrogen compounds due to the excessive use of synthesis fertilizers in agriculture), some (e.g. deforestation) are the result of the social changes, the main important being the property system.

However, the environment by the natural geographic features such as the Danube Delta and the mountains, the unique cultural heritage - including old architecture and numerous Byzantine monasteries give Romania an advantage to expand and thrive on its tourism industry [3]. The Moldavian region in particular, with its reputation for a clean environment, traditional food and old monasteries has the assets needed for the additional environmental activities carried out to enhance tourism operators.

2. Organisms interested on solving the ecological problems

According to our studies, the most important organisms interested on solving the ecological problems in Romania are: the Government (local and national authorities), the universities, the non governmental organisations (NGOs), the Church, firms with tourism activities and the media.

The activity of each organism, in the above context, will be subsequently presented trying to respect a chronological order. By the term Church, we mean the Romanian Orthodox Church, which is preponderant in the Moldova region. Nevertheless, the Catholic Church has its own actions concerning the environment in the context of Romania's integration in EU but these make not the object of the present study.

2.1. Government

Government is expected to play an important role in coordinating actions to improve the quality of environment. Although Romanian legislation covers environmental requirements, the government does not appear to be taking a leadership role in environmental protection but the situation is gradually changing. Another problem is in the collaboration between local and regional authorities, which is not always reliable.

For example, in 2005, the Ministry of Tourism in Romania claimed to follow the most important trends in the world's tourism industry but there were no environmental certification schemes in tourism. Another example concerns the efforts made by the government in order to renew the Romanian auto park. Therefore, a thousand euros discount was offered to those intending to change their old car with a new one that respects the European regulations on the gas emissions (Euro 3 – Euro 4). Unfortunately, the program was so successful that the number of cars in use in Romania increased a few times in a couple of years with obvious negative results on the environment – especially in the cities.

Being rooted in the communism past, corruption is often identified as a crucial problem in Romania since it is not only a barrier to effective collaboration between different interested organisms but also presents a negative image of the country.

2.2. Universities

The university can participate in training and environmental education, coordinating technical expertise and research activities, communication and information sharing as well as organising meetings and conferences.

In 1992, at the Faculty of Industrial Chemistry from the Technical University 'Gheorghe Asachi' in Iasi, it was founded the Department of Environmental Engineering. Twelve years later, in 2004, the development of the department requested the change of the faculty's name in Faculty of Chemical Engineering & **Environmental Protection**.

In 2002, this department has organized the First International Conference on Environmental Engineering and Management (ICEEM), which is now at the 4th edition. Furthermore, in 2004, at ICEEM 02, it was organised a roundtable entitled '*Can Religion Contribute to the Sustainable Development?*'

The role of the Technical University in creating connections between with Ecology and Theology, between scientists and theologians is also reflected by the hosting of the 11th European Conference on Science and Theology (ECST XI) '*Sustaining diversity. The futures of Creation*', organised in 2006 by ESSSAT.

Technical University of Iasi also develops research programs with universities from France (Orleans, Rouen, and Nice) on Plasma chemistry, with environmental applications. An important research direction in these programs regarded the hydrogen production in plasma reactors with the proposed aim of

passing to a hydrogen economy. The very interesting and promising results are also reflected in a long series of high quality papers [4].

Apart of the technical results, our researches suggested the immediate need of passing to new and renewable sources of energy. Let us see, for example, a quotation from an article published in 2003: “There are signals that a long oil crisis may come sooner than expected, and those countries which will be able to shift rapidly to other sources of energy will face a disastrous situation.” [5]

Our conclusions were supported by the studies developed latter on by other scientists too. According to an article dealing with the development of European hydrogen infrastructure scenarios: “If hydrogen is available at the targeted cost for large scale natural gas reforming and if the oil price rises to 150 \$/barrel, then hydrogen fuel cell cars are competitive with conventional cars. In case hydrogen is available at the prices targeted for electrolysis with wind power, hydrogen fuel cell cars will be competitive at an oil price of 120 \$/barrel.” [6] If we are looking to the oil market trend today, the time for a real change has already come.

2.3. NGOs

The NGOs are important due to their credibility in front of the society and due to the building capacity of international relations. They can participate in training and environmental education, communication and information sharing as well as in publicity.

The Academic Organisation for Environmental Engineering and Sustainable Development (OAIMDD) is a perfect example of NGO involved in promoting environmental aspects.

In 2001, OAIMDD has founded the publishing house ECOZONE. Since then Ecozone has published more than 60 books divided in 9 collections: Environmental Engineering, Management of Environment, Sustainable Development, Man & Environment, Environment & Materials, Science & Society, Environmental Management in Food Industry, Doctoral and Master thesis. Ecozone also publishes two journals: ‘Environmental Engineering and Management Journal’ and ‘European Journal of Science and Theology’. After a rigorous evaluation process, both of them were selected, from the first attempt, to be indexed and abstracted in ISI Thomson Reuters database.

The implication of Ecozone in the field of Science (Ecology) and Theology is not proved only by the European Journal of Science and Theology but also by the publication in 2006 of the Abstract book of ECST XI.

OAIMDD has co-operations with International Institute for Industrial Environmental Economics din Lund (Sweden), University of Karlsruhe (Germany), University of Utrecht (Holland), University of Lyon (France), Orthodox Academy of Crete (Greece).

2.4. The Church

After the Revolution from December 1989, the Church has strongly reinforced its credibility among people, more than 90% of the population declaring its religiosity.

The Church is highly aware of the ecological imperatives and the need for intensified cooperation to achieve them. The integration in Europe contributed to the Church's understanding that resources need to be used efficiently; its guiding principle is that the presence of the Church and of the parish or monastic community should not have any damaging influence on the environment. However, from the very beginning, those who established monasteries made sure that the monastic settlements would not be conflict with the surroundings and would not exploit unwisely its resources [7].

The Romanian Orthodox Church owns a little part of the arable land and of the forests, being able to constitute a model of care for a sustainable Eco-management and Eco-agriculture. Romanian monastic lands are already known for such natural products as: therapeutic herbals, wild berries, and medicinal teas. Even the monastic diet allows a gentle, considerate approach of nature, in view of the fact that about half of the ecclesial year is made up of periods of fasting, the monks thus taking only what nature offers them.

The Church carries out its activities in the rural areas of Romania against a background of poverty. The overemphasis on industry during communist years caused many Romanians to migrate to the urban areas. Now, with the closing down of the inefficient industrial plants, people return to villages where they have to start a new life. This is a new environment where the education for ecologically aware agriculture should be promoted. In this field, the Church has been a partner of various specialised EU and US organisations and foundations such as World Vision International, but the results are yet too modest.

The priest plays an important role, as he is, traditionally, the person with the greatest authority in the rural community. A pilot-programme has been implemented in a poor parish near the city of Iasi, where the priest has implemented various programmes. In some parishes – a foundation set up by the village priest has developed links with the EU-funded Romanian Fund for Social Development (F.R.D.S.), S.A.P.A.R.D., PHARE and USAID. With input from World Vision International and other international bodies they have implemented a programme for small size farms (raising animals, greenhouses for vegetables) – all in an area often affected by floods and by river pollution, with access to only one source of fresh drinking water [7].

The sustainability of the environment is also part of the eco-theological education developed by the Church in cooperation with educational bodies, restoring in the mind of the modern man the role of God in the creation [8].

The tradition of pilgrimage has an important role in the world [9] and in Romania too. In the Orthodox tradition pilgrimage involves struggle and renunciation. Thus, the pilgrims visit and worship holy sites, monasteries, icons or burial grounds of great Church personalities without expecting top-class

board and lodging facilities. Quite often pilgrimage is seen as an exclusively spiritual endeavour during which one has to eat sparingly, walk a lot, sleep less and in modest conditions, and make offerings to the poor and to the holy site.

The Romanian Orthodox Church has set up several pilgrimage centres that provide specific services and promote ecological education. The pilgrim is required to have a decent and deferent behaviour in the monastery and the surrounding area and towards the monastic community, which abides by different laws than the lay world. Pilgrim guides or tour leaders seek to promote the awareness of Church membership and the significance of Christian identity and of the responsibility towards God's creation. The Church has initiated educational pilgrimage programmes for young people as well as spiritual ones for the elderly.

2.4.1. Ecumenical Institute Saint Nicolas in Iasi and Providence Centre

The Romanian Orthodox Church is also providing frame and facilities for meetings and brainstorming. Good examples in this direction are the Ecumenical Institute Saint Nicolas in Iasi and Providence Centre. They both offer accommodations, conference halls and catering services for different scientific and/or theological meetings. ECST XI was organized using their facilities.

In order to develop the environmental consciousness, these institutions have adopted energy, water efficient technologies similar with those from Northern European hotels, the food served here is ecological, and those who rule them have shown their interest on the introduction of ecolabels in the Romanian tourism [2, p. 13; 3].

2.4.2. Romanian theological contributions to the ecological problems - Father Dumitru Staniloae

The Church adds to the general concern about ecological aspects, the spiritual dimension because the world must realise that the issue at stake is not only how we live, but the life in itself.

Starting from the idea that the ecological and social crisis are often reflexes of the spiritual crisis, the most renowned Romanian theologian, Father Dumitru Staniloae, has performed a synthesis between spiritual, social and ecological, representing the germs of an Orthodox Ecotheology.

Professor Dumitru Staniloae's lectures at the Orthodox Theological Institute in Bucharest in the late 1960s explored this idea within the Orthodox and Byzantine tradition [10]. According to him, the Holy Trinity and the Cosmos become in Christ, as Pantocrator, the sine qua non premise of this millennium's ecumenism, because will always oblige more and more Churches to sail at the large of loving Trinity and infinite Cosmos for a Christian unity. It will be the premise of preserving the spiritual and cultural identity of the people, into a world pre-occupied by the globalization process, but also the premise for ecological concerns.

3. Media

The media can contribute to the solving of ecological problems by publicity, information distribution and most important by public debate. In the last years, media was involved on presenting the negative effects produced by the savage deforestation of the country.

3.1. Cultural-Missionary Institute ‘TRINITAS’

In the long run, the Church could be involved in educating people through the media it owns, by setting up information and support centres for ecological farming.

The Cultural-Missionary Institute ‘Trinitas’, ruled by the Metropolitanate of Moldova and Bucovina, was founded in June 1997, owns a publishing house, an international radio station and a TV channel. The publishing house prints cultic books, Spirituality and Orthodox culture books and albums. It also supports two journals: ‘Moldavian Candle’, ‘Theology and life’ and a national newspaper – ‘The light’. The Institute has supported ECST XI, broadcasting live conferences, interviews and news from the event.

Since October 2007, the Romanian Patriarchate founded the Basilica Press Centre that includes the Trinitas radio station, the TV channel and the national newspaper.

4. Conclusions

With no pretention of being very comprehensive, the article shortly presents the evolution of the ecological issue in Romania, during the two decades following the Revolution from December 1989. The focus is put on Moldova region with its main city Iasi.

The Church, the universities, the non-governmental organisations and media contributed and still contribute, by their activities, to the integration of the country in the European Union.

References

- [1] ***, www.Copsa-mica.org, 2007.
- [2] C. Biggs, V. Filimonau, A. Rum and R. Yamamoto, *Assignment for the course Strategic Environmental Development (SED) Master of Science in Environmental Management and Policy*, IIIIEE, Lund, 2005, 14.
- [3] I. Rusu and M. Macoveanu, *Potential for Tourism Ecolabelling in Romania*, Proceedings of International Tourism Conference, A. Aktas (ed.), Akdeniz University, Alanya, 2006, 679-693.
- [4] I. Rusu, *Environmental Engineering and Management Journal*, **6(3)** (2007) 211.
- [5] I. Rusu, *Bulletin of IPI, Chemistry & Chemical Engineering*, **1/2** (2003) 21.
- [6] M. Wietschel, U. Hasenauer and A. de Groot, *Energ. Policy*, **34** (2006) 1284.
- [7] D. Sandu, *European Journal of Science & Theology*, **1(2)** (2005) 35.

- [8] S. Grigoruță and E. Semen, *European Journal of Science & Theology*, **4(2)** (2008) 113.
- [9] M. Shackley, *European Journal of Science & Theology*, **1(4)** (2005) 33.
- [10] S. Baker and R. Morrison, *European Journal of Science & Theology*, **4(2)** (2008) 35.