
Felicia BENCIU, Liliana BUJOR, Elena BOGAN, Dana Maria (Oprea) CONSTANTIN, Gabriela DÎRLOMAN

To Link this Article: http://dx.doi.org/10.6007/IJAREG/v6-i1/5604 DOI: 10.6007/IJAREG/v6-i1/5604

Received: 11 Feb 2018, Revised: 26 March 2019, Accepted: 02 April 2019

Published Online: 04 April 2019

In-Text Citation: (Benciu, Bujor, Bogan, Constantin, & Dîrloman, 2019)


Copyright: © 2019 The Author(s)
Published by Human Resource Management Academic Research Society (www.hrmars.com)
This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: http://creativecommons.org/licences/by/4.0/legalcode

Felicia BENCIU¹, Liliana BUJOR¹, Elena BOGAN², Dana Maria (Oprea) CONSTANTIN², Gabriela DÎRLOMAN³

¹The Ecological University of Bucharest, The Faculty of Ecology and Environment Protection
²University of Bucharest, Faculty of Geography, Romania
³Nicolae Kretzulescu Superior School of Commerce, Bucharest, Romania

E-mail: felidumitru@yahoo.com; lilianabujor@yahoo.com; elena.bogan@yahoo.com; gabriela.dirloman2018@gmail.com; danamartines@yahoo.com

Abstract Communication is the first step of the awareness process, aiming to integrate and accept the information transmitted through messages. Thus, when communication is effective, real and interactive, the receiver's awareness of the received message will increase.

The case study aims to raise the awareness of the local communities in the Natura 2000 sites from Lunca Buzăului and from the Meledic Plateau, regarding the importance of biodiversity in an area. The action was initiated and carried out through an information and awareness project for the Natura2000 sites (ROSCI 0103 Lunca Buzăului and ROSCI 0199 the Meledic Plateau), coordinated by university teachers with the active involvement of the voluntary students from the Faculty of Ecology and Environmental Protection of the Ecological University of Bucharest. The motivation was supported by the fact that the student is attending only courses and seminars, which gives him/her a limited educational experience comparing to the current requirements of the workforce training.

The proposed goal is given by the fact that extracurricular activity volunteering, in this case, the ecological one, helps to the professional development specific to the field and afterwards, it will increase the
chances of obtaining a job according to the specialization. By finalizing this project, we can say that our goal has been achieved.

Keywords Practice, Students, Volunteering, Awareness, Local Communities, Natura 2000 Site

Introduction

The awareness of the biodiversity values is a process that includes several stages and aims to constructively collaborate the local community with the stakeholders directly interested in the biodiversity conservation, in general, the manager of the protected area. An area is declared a Natura 2000 site after a laborious and serious research of the biologists/ecologists/etc. from the point of view of the emergence of certain species of flora and/or fauna protected by law at European level. The protection of these species and of the site rests with the manager and in order that he might succeed in ensuring that the area is further developed, he must sign a proper partnership with the local communities (Benciu & Pop, 2013).

The communication of the biodiversity values, of the ecological principles, of the conservation and protection measures for flora and fauna species, of the good human behavior according to respecting the environment etc. is an important factor for the implementation of the preservation of biodiversity management plan in the project (Rientjes, 2000).

One of the common interest subjects of the Rio Conventions is that of the public education. Within this theme, each of the three Rio Conventions discusses issues related to communication, education, public information (CEPA) (Hesselink et al., 2010) with references on the environmental issues (UNDP-GEF, 2012). Under the aegis of the Convention on Biological Diversity (CBD), at international level, with the help of the experts, there was adopted a CEPA guide-book (2010), which can be adapted to the different situations in each country.

This subject was also approached in the draft of the Communication Guidebook on Actions and Conservation Policies (ECNC, 2000). The communication on nature conservation includes a broad range of types of actions: from the educational activity of the primary school children to the development of the personal tools in order to negotiate to the top managers. In this sense, communication is a continuous process that follows the next steps: Talking → Hearing → Listening → Understanding → Acceptance → Action → Continuing Action (Rientjes et al., 2000).

Awareness - communicating with the local communities on the importance of the biodiversity values

What is awareness and what is its importance? The process of awareness has several stages, each stage having a decisive role in its development.

A first step in this process is the establishment of the target group, this being the local community. It is important not only contacting the local authorities/institutions but also the understanding of the respective community from a psychological point of view, meaning the local and common interest of the individuals in the respective community. Looking at the local community similar to an organized crowd, Gustave le Bon said that ‘... this is a meeting/crowd of people, which regardless nationality, profession or sex, have different characteristics/common
interests from an individual to another, thus forming a psychological crowd that obeys the law of the mental unity of the crowds’ (Gustave le Bon, 1991). Therefore, at this stage it is considered that, following the bilateral dialogues, the manager’s team will be able to identify the local needs and interests related to the development of the respective locality.

The next step is to effectively communicate the interest of the manager on the conservation of biodiversity, and of the species of plants and animals protected by the European legislation in force so that this interest may become one of the local community, of the local authorities.

In the recent specialized literature, ‘Communication is a process of transmitting a decoded message so that the receiver can access and integrate entirely the received information. Communication is real and effective when decoding the message is according to the interlocutor’s understanding’ (Kozan Naumescu, 2008). From a psycho-pedagogical point of view, the information is intelligible when it is understood by an 8-year-old child (Anne de Graaf, 2010). Thus, it is hoped that the transmitted information may be as accessible as possible to the understanding of as many non-specialized people in the field of ecology. For the communication efficiency, it is necessary that the manager’s team to join to the protected area, implicitly to the local community, so that the latter one also join the team. When the problem of biodiversity conservation is viewed from the perspective of the observer, it will be possible to understand the measures to be taken and/or applied in its favour.

‘Communication, and therefore the dialogue, is not a process by which we act upon a person, but it is a process by which we share something with another person’ (Kohlreiser, 2007). Therefore, the dialogue requires a mental adaptation to the relationship with others, the purpose of the dialogue being the understanding of the interlocutor and not just the attempt to make him understand us. It should be paid attention that during a dialogue we have open verbal-social messages, but also hidden messages, on a non-verbal-psychological level. The real communication is achieved when the two types of messages in the dialogue transmit the same information, the non-verbal and the psychological message reinforcing the verbal, open message. When the previously debated stages are positive, the final stage of the awareness process, namely the acceptance of the information in the transmitted message, is accomplished. This acceptance stage requires a period of information processing so that the general interest of the local community can be recognized and not misunderstood (Steward & Joines, 2007).

In order for the biodiversity conservation issue to be carried out within the Natura 2000 sites, it is necessary to increase the awareness of the biodiversity importance of an area, and moreover, to become an interest of the local communities, especially of the local authorities who can facilitate the work of the manager of the site. The co-operation with the directly interested local community is essential to successfully achieve the biodiversity conservation objectives. According to the environmental policy legislation, it is important to find out: in this cooperation: What do local people and local authorities think about biological diversity? What can motivate the local community to act in supporting the conservation? Which is the local communication (local language and slogan) and how local partnerships are established?
The code of best practices on the biodiversity values in the higher education – the students’ engagement

The theoretical and practical basis provided only by attending courses and seminars is not sufficient to gain experience in training specialists. In other words, no Bachelor's degree obtained without the practical knowledge has the same value as a CV that has attached (besides the diploma) and a set of other attestations learned during the study years (through volunteer activities and other similar activities), especially in a field related to the natural sciences, which is based on excellence through the experience gained on the field. The knowledge needed for a future in the field is acquired through initiative, assuming responsibilities and applying the theory on a practical level.

It is a recognition of the education specialists that ‘The school education reform of one kind or another is a priority for the educational systems around the world. This is the first specialized work which analyzes the school reform from the perspective of the students. In the second part, the paper refers to the reform initiatives that have been able to harness the students'/students' energies and therefore, to improve their involvement in the student life. These reforms, which are in line with the needs and interests of the students, offer clear and valuable guidance to those who seek to create more equitable school experiences. This chapter summarizes the themes and perspectives gained from reviewing the school reform centered on a pupil/student focused and provides suggestions for a more relevant and sustainable reform’ (Rubin & Silva, 2003).

Within the Faculty of Ecology and Environmental Protection of the Ecological University of Bucharest, a study was carried out over several years, focusing on the knowledge of the increasingly specialized requirements of the Romanian labour market and correlated its requirements with the absorption of the environmental specialists on the labour market. The results of the observations made on the skills and knowledge acquired by students in the study years highlight that the students are disoriented both in training and in the perspective of training as specialists due to a cumulus of factors. As a result, the next question arises: Why do students become disoriented? In searching a reply, the following arguments appeared:

The idea of student-centered learning, the flexibility of the learning pathway, the learner autonomy, well-defined skills and competences, and less practice are currently more and more noticed. As a whole, the students feel the need for change, for active involvement in the academic life. Working with them effectively, we find that a great part of them is more interested in the practical work.

As a result, the next question arises: What can students do in order to integrate into these activities? Starting from the fact that the students feel the need for change, of active involvement, responses are not delayed: on the one hand, the students help making easier the relationship between the teachers responsible with projects/activities and the target audience that most often is represented by young people; on the other hand, by participating in these activities, they have the opportunity to stand out and attract the interest to get a job of some potential employers.
Case study: The awareness campaign of the local communities on the importance of biodiversity in the Natura 2000 sites: Lunca Buzăului and the Meledic Plateau in the Buzău County and the involvement of the ecological students from the Ecological University of Bucharest

Preliminary data of the awareness campaign of the local communities in the Natura 2000 sites from Lunca Buzăului and the Meledic Plateau in the Buzău County

The Population Awareness Campaign from the Natura 2000 sites: Lunca Buzăului and the Meledic Plateau, concerning the importance of biodiversity is considered an activity of E type (according to ICPA) and includes a series of awareness actions that will be described below:

In the initial part of the awareness program, an announcement in the local press was made in the weekly newspaper ‘Short on Two’ (with 1000 copies), in which the start of the project was announced. This has led to the direct contact with the local communities so that the public could get to know the objectives of the project.

The press conference dedicated to the start of the project was organized in the Buzău County Council Hall, where the direct contact of the representatives of the local community with the site manager’s team and with the Ecological University of Bucharest was made, as direct stakeholders. The chart in Figure 1 shows the composition of the target group at the conference:


Information materials were distributed: posters and brochures with information on the Natura 2000 sites of Lunca Buzăului and the Meledic Plateau, on the protected flora, fauna and landscapes.

Figure 1. The composition of the target group at the Press Conference

The role of the informative materials was to highlight the project, presenting its stages, objectives and purpose, as well as presenting the public opinion on the issue of biodiversity.

The awareness activity of the local population took place from May 12th, 2013 to May 5th, 2014, being coordinated by a responsible person who’s task was to draft The Activity Report on The Local Population Awareness Activity. The field team also included students and master
students from the Faculty of Ecology and Environmental Protection from the Ecological University of Bucharest, which had a bigger impact on the awareness of the young generations from the secondary schools and the high school pupils.

Depending on the target group, the awareness campaign in the two Natura 2000 sites was divided into two activities:

- the school caravans, where the target group consisted of the young people (pupils) and the school staff/directors of the schools.
- the participation in the local events, folk festivals and traditional fairs, where the target group consisted of locals, mass-media and the local politicians, merchants, tourists.

The population assessment pre-campaign aimed to take interviews to the population by filling in a questionnaire, this being necessary as a reference system on the awareness level at the end of the campaign. The questionnaires were designed as a set of questions related to the knowledge of the Natura 2000 site, the protected species of flora and fauna, the conservation measures etc. The questionnaires were applied on categories of respondents grouped by gender, age, occupation, level of studies.

There were interviewed 230 people, of which: 190 respondents affiliated to Lunca Buzăului, 20 to the Meledic Plateau and 20 to other localities in the Buzău County. The respondents ranged over the age of 18 years old, with different types of studies and occupations, according to Table 1.

<table>
<thead>
<tr>
<th>Categorii de populație</th>
<th>Categories of age</th>
<th>Categories of study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultors/no occupation~ 100 pers.</td>
<td>18-24 y.o.~30 pers.</td>
<td>Secondary school~45 pers.</td>
</tr>
<tr>
<td>Teacher, public officer /~25 pers.</td>
<td>25-35 y.o.~20 pers.</td>
<td>Professional school~50 pers.</td>
</tr>
<tr>
<td>Commerce, small enterprises~70 pers.</td>
<td>36-45 y.o.~65 pers.</td>
<td>High school~100 pers.</td>
</tr>
<tr>
<td>Public services~5 pers.</td>
<td>46-55 y.o.~65 pers.</td>
<td>Higher education~30pers.</td>
</tr>
<tr>
<td>Other occupations, retired persons~30 pers.</td>
<td>&gt;55 y.o.~50 pers.</td>
<td>Postgraduate studies~5pers.</td>
</tr>
</tbody>
</table>

The results of the interpretation are presented in Figure 2 and show a weak knowledge of the sites. The same questionnaires were also applied in the final part of the project in order to measure the impact of the awareness campaign conducted in the two sites.
The Awareness Campaign road of the pupils in the primary and secondary schools and high schools in the visited localities was scheduled in three different periods. Four schools affiliated to the site of Lunca Buzăului were visited, in the villages: Pătârlagele, Cislau, Vernești, Vadu Pașii and two schools affiliated to the Meledic Plateau: Mânzăleşti and Lopătari. In the preparation of these visits, the School Inspectorate of Buzău has collaborated with the mayors of the localities and the specialized teachers (of natural sciences, biology, ecology, geography) and with the pupils and teachers from the respective schools. The meetings consisted of a video presentation dedicated to the pupils, followed by open dialogues between the students - teachers - members of the project team, and in a final phase, there were distributed information materials about the site, exclusively dedicated to pupils (Figure 3a-f).

The awareness stage of the population with the active participation of the information team at the local fairs took place in May-September 2013. The action was supported by the representation of a stand at each fair, the distribution of informative materials, the organization of competitions dedicated to young people. The summary of the activity shows that the following categories of people (target groups) have participated: the local people - about 55%, local neighbors - about 25%, tourists, merchants (the brochures of best practices in the Natura 2000 sites were dedicated to them) - about 20%.

The events in which the awareness campaign was conducted were: May 11, 2013 - The Cuckoo’s Fair – Pătârlagele; July 6-7, 2013 - The Slănicului Festival – Mânzăleşti; July 21, 2013 - The Wallnuts Realm Fair – Lopătari; August 28-29, 2013 - The Traditional Fair – Mânzăleşti; September 22, 2013 - The Householders Parade - Săpoca.

At each fair, the informative materials for ROSCI 0103 Lunca Buzăului and ROSCI 0199 the Meledic Plateau were distributed: project posters, brochures of best practices in the protected areas, leaflets, laser show design at the Slănic Festival (Figure 4).
Figure 3. Actions to raise the awareness of the biodiversity values in the primary, secondary and high schools

Figure 4. Actions of raising the awareness of the biodiversity values at the local fairs
As a result of the information received, the SWOT analysis of E type: Information - Promotion - Awareness is presented in the Table 2 below:

Table 2. The SWOT analysis activity, of E type: Information - Promotion - Awareness

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Caravan School (2013-2014)</td>
<td>• Press release - July 2012</td>
</tr>
<tr>
<td>• Participation at the local events (2013)</td>
<td>• Press Conference - August 2012</td>
</tr>
<tr>
<td>• Organization of public debates of management plans drafts (2013-2014)</td>
<td>• Posters/project brochures</td>
</tr>
<tr>
<td></td>
<td>• Assessment Pre-campaign of Lunca Buzăului and the Meledic Plateau - September/October 2012</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Contacting the interested local press in order to establish contacts</td>
<td>• After the Press Conference, a lack of cordiality was established between the Ecological University of Bucharest and a certain area of the local authority (the press).</td>
</tr>
<tr>
<td>• Contracts with the editorial department to publish weekly or monthly articles of the experts on biodiversity and custody of the Ecological University of Bucharest</td>
<td>• Most respondents (90%) of the local communities are not aware of the existence of the Natura 2000 sites in the Buzău area.</td>
</tr>
<tr>
<td>• 10% of respondents have knowledge of the existence of the Natura 2000 sites in the Buzău area.</td>
<td></td>
</tr>
<tr>
<td>• The public desire for information on the regular status of the environment and the steps undertaken within the project.</td>
<td></td>
</tr>
</tbody>
</table>

The Involvement of the Volunteer Students

The participation of the students of the Faculty of Ecology and Environmental Protection of the Ecological University of Bucharest in this project, involved, in the first stage, the establishment of links with the local authorities and information about the event to the mayors, schools and high schools in the protected areas. The presentations aimed to highlight the importance of the biodiversity for maintaining the balance of the ecosystems in the site and the dangers to which they are exposed if their balance is disturbed.

In the awareness process of the masses, the following attributions were given to the students:

The first step was the establishment of the target group, contacting the local and common interest authorities and to identify their needs and interests in the harmonious development with the principles of biological diversity conservation.

The second step consisted in communicating about the Natura 2000 sites biodiversity conservation to the target groups of the interested academic community, in a language most accessible to the local people.

Together with the academic staff team, the students' team actively participated in the awareness raising of the local communities by organizing school caravans in the primary,
secondary and high schools in May 2013 - April 2014 in the Natura 2000 sites: ROSCI 0103 Lunca Buzăului and ROSCI 0199 the Meledic Plateau.

The first school caravan was held in May-June 2013 for the Meledic Plateau in Mănzălești and Lopătari and for Lunca Buzăului in Vadu Pașii, Vernești, Cislău, Pătârlagele where information materials were distributed.

During the preparation of the second caravan in October 2013, the willingness of other schools to take part in this action was also acknowledged. The second school caravan started in Lunca Buzăului, where the schools from Săpoca, Mâtești, Stâncești and Scurtești were included, and continued to the Meledic Plateau where schools from Plaiul Nucului and Malu Roșu were also visited.

At the third caravan held in March-April 2014, there was introduced a moment dedicated to motivating students through thematic mini-courses.

According to the school caravans methodology 2014, the visit to schools had the following activities:
- At the meeting with the teachers involved, assessment questionnaires were distributed and the attendance diplomas were handed over.
- At the meeting with students, there were presented the objectives and the purpose of the project, there were organized mini-courses with prizes and diplomas for pupils (Geodiversity, Meledic Scorpion, Purple Flyer, Bombina bombina, Triton Dobrogean and The Gopher), short films were seen and a questioning session was held in order to understand the concepts of the environmental conservation and biodiversity protection.

The school caravan started with the schools in the Meledic Plateau at the ‘N.Cristea’ and ‘La Grunjii’ secondary schools in Mânzălesti, the schools of Malu Roșu-Terca, Plaiul Nucului, Ploștina, Luncile and The Lopătari Technological High School; and continued with those from Lunca Buzăului: Vadu Pașii, Vernești, Cislău and ‘Radu Vulcănescu’ Theoretical High School from Pătârlagele. A large number of teachers and pupils attended the event and information materials (site brochures, brochures for best practices, leaflets) were distributed.

The results obtained from the processed data revealed the following:
- Most students and high school pupils have been interested in the information on the Natura 2000 sites and have raised questions about biodiversity, environmental conservation, protected species protection.
- Most teachers were interested in the information received through the information materials and also wanted a long-term collaboration with the Faculty of Ecology and Environmental Protection from the Ecological University in Bucharest.
- A better awareness of the importance of the site ROSCI 0199 the Meledic Plateau has been observed due to the large number of encounters with the population (caravans + 4 fairs), comparing to the Natura 2000 ROSCI 0103 Lunca Buzăului (caravans + 2 fairs).

The students from the Faculty of Ecology and Environmental Protection of the Ecological University of Bucharest had the opportunity to open the dialogue with the pupils from the visited primary, secondary and high-schools.

Conclusions
The conclusions on raising the awareness of the local population were:
• The large participation in these events was carried out in good conditions, the main aim of establishing direct contacts with the locals, being achieved.

• The recognition of the Ecological University of Bucharest Awareness Team and of its role by the locals, and there was noticed a very good relationship between the two groups.

• There has been a good relationship with the local authorities at festivals and fairs, the mayors have given interest in presenting the project and the Ecological University of Bucharest team.

• A good communication has also been established with the traders participating in these events, who are receptive to the Natura 2000 brochure of best practices for ROSCI 0103 and ROSCI 0199 under the project.

• Attracting volunteers from the local environment in carrying out these actions had a real positive impact on the communication team, the role of the students being undeniable.

• Within these events, very good relations were established with the local community: mayors, teachers, individuals, cultural representatives and not least with the children present in a very large number. They were very receptive to the activities and competitions, and therefore they received diplomas and brochures on best practices applied in the protected areas.

• The results of the SWOT analysis made after the population assessment pre-campaign on the biodiversity importance awareness and its conservation revealed a poor knowledge of the locals of the fact they live near or in the Natura 2000 site and of the importance that derives from this fact. There has also been a growing interest in the knowledge of the schoolchildren and high school pupils, this information being important for the communication team in the next promotion stages. As a result, during the implementation of the management plans, it is necessary to take into consideration the establishment of a larger number of meetings with the locals from the Lunca Buzăului site.

• Regarding the project’s aims, there was a minus the relationship with the media as it was not possible to have a good collaboration, the project itself being of no interest in appearing in the local newspapers.

**The results of the student team’s work were:**

• The permanent attraction of the volunteers throughout the promotion campaigns had a positive impact on the communication team.

• The school activities carried out with the students have been successful in the dialogues with the pupils, so in the future they will integrate students into the communication-awareness team.

• Developing the student-teacher collaboration relationship benefic to the student’s professional development, materialized in the personal benefits of the students: experience in the profession, diplomas attesting a better professional training, thus increasing the chances of engaging in the field of ecology.

• The direct contact of the volunteer students with potential employers and the presentation of their CVs.

The conclusions underline that, firstly, there is a need to maintain a very good collaboration with the decision makers in the local administration and the education system, and secondly, a closer collaboration with the local mass media for a fair information of the local population about the site custody - the importance of biodiversity - the preservation of
biodiversity - the protection of the environment. Therefore, there is a long-term cooperation between the project team and the local mass media, through constant appearances in newspapers, radio, local television.

Acknowledgement
This study was carried out within the framework of the SOP Environment Project "Management Plan, Public Consultation and Awareness Campaign for the Natura 2000 Sites: CODE ROSCI0103 LUNCA BUZĂULUI and CODE ROSCI0199 THE MELEDIC PLATEAU" made by the Faculty of Ecology and Environmental Protection, The Ecological University of Bucharest.

REFERENCES


