

CHAPTER 5

Alternatives analysis

Impact size analysis

Paradigm that the most effective solutions in the long term, also the most environmentally friendly, has been fully understood and assumed by the initiators and promoters of the project BRUA. Thus, from the outset, choosing solutions aimed at ensuring the long-term operating efficiencies, which ensured full and convergence with sustainability criteria regarding environmental factors.

The initial route selection and optimization the following criteria were considered:

- I. Operation security criteria: taking into account the strategic importance of this investment, and the risks inherent in such a thoroughfare natural gas transport were analyzed and, there were adopted solutions among the safest in the world, integrating all standards in technological quality;
- II. Economic criteria: there were considered the most effective solutions and methodologies to achieve the transport pipeline, which equally ensure a long life span as; this level was analyzed and geographical route to follow, so the route chosen to assume an easy approach as technical execution costs as low;
- III. Social criteria: routes were selected so that the work of the local community in the area of influence of the project are as little affected, both during the construction and the operational phase (which involves the establishment of technological protection perimeters with a range the regulations restricting activities); They were avoided as much as possible housing areas, and transport routes or networks;

As for the environmental criteria, the project was approached in the light of principles underlying environmental legislation, taking into account:

- a. The precautionary principle in decision making
First, taking into account this principle, the present document was elaborated, trying to fulfil as true as possible and detailed the BRUA project and thereby assist decision-making by the authorities competent in the field.
- b. The principle of preventive action
The principle of preventive measure should assume a proactive, responsible involvement. There were considered solutions of best practices to the project, especially in the execution phase, so the impact on the environment to be reasonably prevented, reduced and, where possible be canceled by taking a set of actions which also participate in prevention and propagation of impact waves (particularly indirectly) to the environmental elements or factors.
In particular, it is envisaged ongoing construction period assuming a surveillance program that would ensure ongoing conformity with the project stages, but to be able and to adapt some steps or sequences constructively depending on the space-time particularities that will arise along the way and which has not been possible to assess in the initial stage.
- c. The principle of pollutants retention at the source
This principle involves a complete inventory of resources with potential impact on the elements of conservation interests, thus establishing for each of these elements solutions to limit the retention of pollutants. The next step, applying the principle of 'polluter pays' will be able to create an environment of high responsibility and awareness of environmental responsibilities, community and common heritage.
Specifically, this principle has resulted in the proposal of achievement in each objective (working area, yard organization, permanent industrial facility's), of grass polders for gradually discharge to function both as mechanical treatment, and the element able to retain eventual pollutants, in case of a potential pollution spill.

d. "The polluter pays" principle

This principle is being used in environmental legislation enforcement, acting as a method of coercion rather efficient. However there are some limitations on the opportunity of using this tool. It is noted that this principle is being abused in cases where the operation of projects are of particular economic (or social), environmental costs are included in the production costs, ultimately borne by the final consumer.

e. The principle of conservation of biodiversity and natural ecosystems specific to the biogeographical scenery

The requirement of conservation "in situ" biodiversity remains crucial, representing the most viable, effective and relevant solution, with implications that are revealed at a large number of action plans. Specifically, measures of ecological restoration proposed were sized to provide restoration to its original state areas impacted are considered including temporary resettlement actions for the natural elements in proximal areas, thus immediately after completing the work, a reversible relocation can be assured.

f. The principle of information and public participation in decision-making and access to justice in environmental matters .

The regulation procedure complied with the principle, thus adopting complete transparency of the tehnico-administrative steps , puttin at the disposal of the interested public, all of the informational material

5.1. Constructive alternatives

The BRUA project is part of the strategy and policies for energy security of the European Union, which aims at diversifying both energy sources by encouraging alternative energy production, and the diversification of supply routes and transport routes. Thus, the natural resources that currently do not have alternatives (as in the case of natural gas), diversification of access routes is a solution that has been prioritized with the international geopolitical climate alteration.

Thus, alternative route was carefully considered and have been optimized route chosen for BRUA watching while ensuring reliable operation, safe and achieving maximum efficiency during construction, but also respect for the natural environment, so the impact on the environment is minimized.

In the context of diversification of gas supply solutions was signed on 13 April 2010 and the Agreement Azerbaijan-Georgia-Romania Interconnector (AGRI) which provides for the construction of liquefaction terminals / delichefiere gas and shipping it.

5.1.1. Alternatives of the chosen routes

Route overview chose the route that connects the southern and western Romania, sought to identify a path as short but to follow somewhat infrastructure pre-existing natural gas transportation, such as at least partially to contain elements of infrastructure can be refuncționalizate. This detail comes thus materialize the principles of sustainable development that have an element of strategic development of the project as a whole.

A design which was the subject of an extensive studio solutions, was the way to cross the Carpathians. Given that the sector Staging-Vulcan was conducted decades ago an initial investment of natural gas transportation that lends itself to technological works (replacing the pipe), the density of protected areas remains weak, and this route is conducted a road with little traffic (DC 664), it opted for this alternative route which has the following advantages:

- Overlapping with a small number of protected areas;
- Making BRUA involves largely replacing work existing pipes and thus pre-functionalization of transport infrastructure by revamping;
- The existence of an access road (DC 664) facilitating the development of sites and does not involve the creation of new access routes (technological roads);

Other possible route alternative (Baia-de-Arama - Cornereva - Caransebeș or Motru - Topleț - Caransebes), although it would have led to a reduction of 25-30% of the route, would have had a more significant environmental footprint by necessity realization of roads and development of sites in natural areas (pristine) which in addition are within the

protected areas (including reserves of national interest and national parks) with a heritage of natural, thus leading to an ecological footprint of the project BRUA much more important.

Thus, project alternatives is a result of the criteria that were used to develop the final form of BRUA.

The following are shown in Figures 5.I.- 5.VII. illustrations of the process of project alternatives and study result:

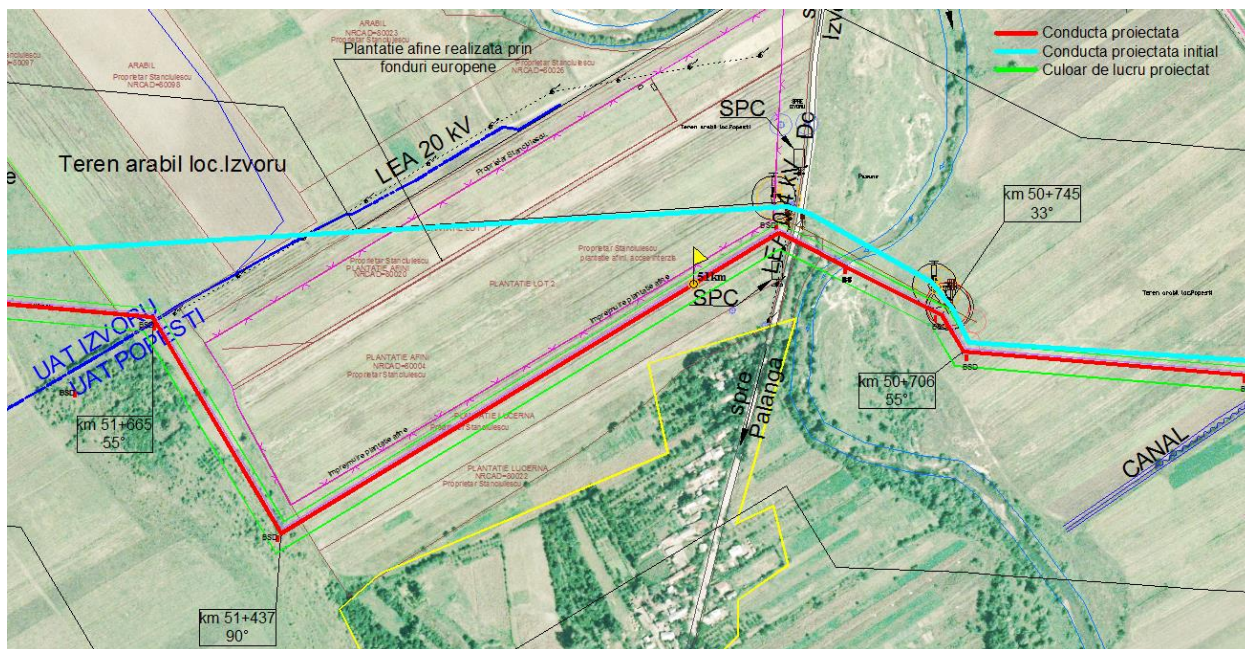


Fig.5.I. Initial alternative design (blue line) was considered to avoid a blueberry plantation achieved with European funds, alternative final (red line) following a perimeter route

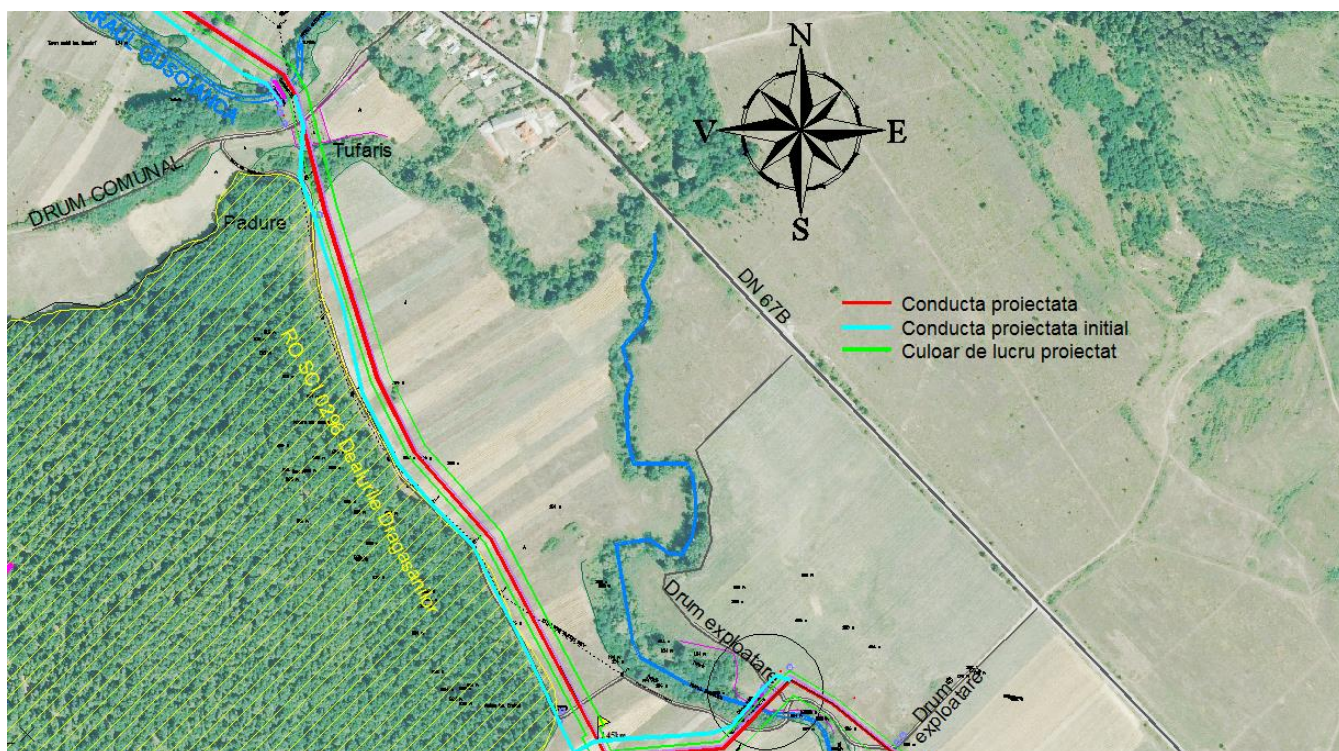


Fig.5.II Initial alternative design (blue line) was considered to avoid overlapping limit ROSCI0296 site Drăgășaniului Hills

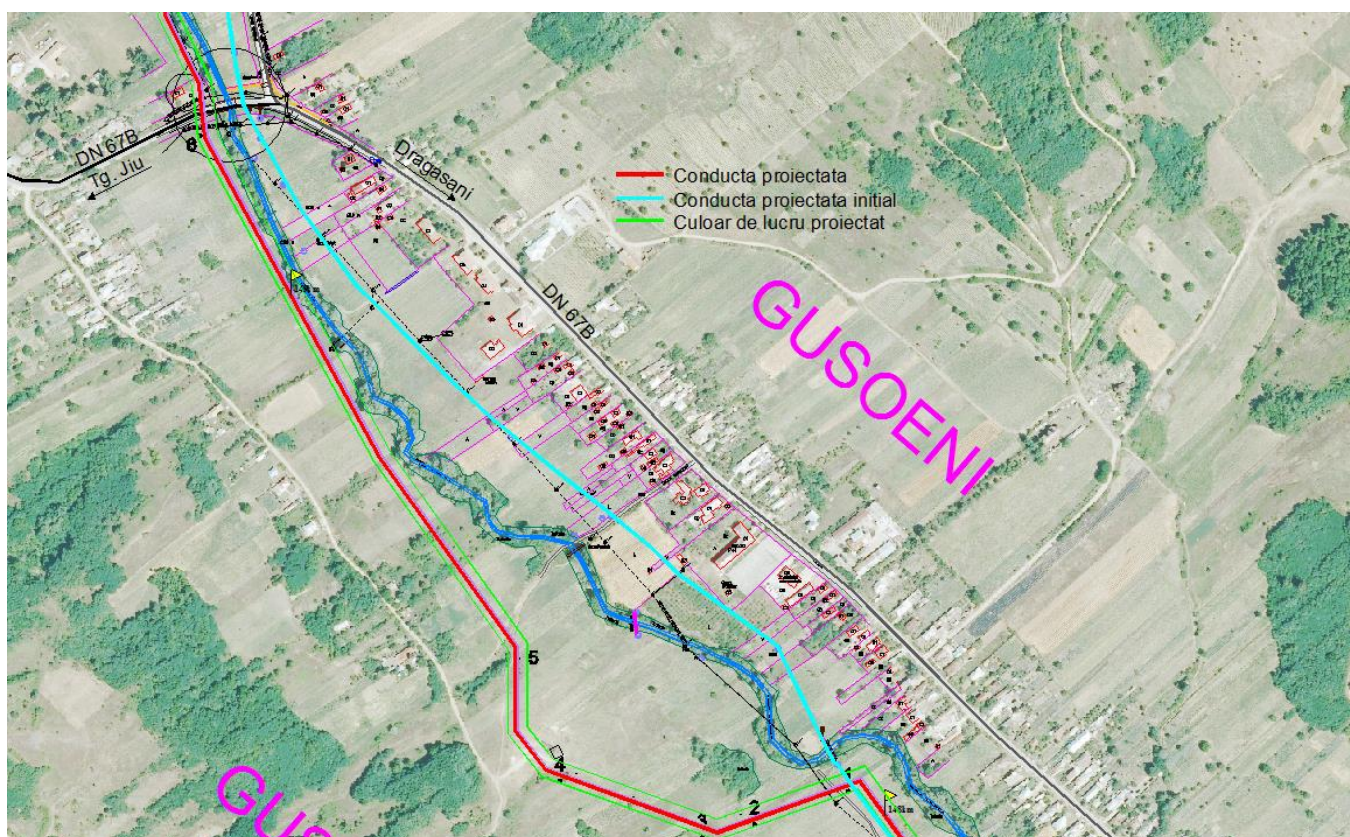


Fig.5.III Initial alternative design (blue line) was considered to avoid an overlap with a plantation teaching (orchard school), and other cultivated areas (gardens) belonging to the local community Gușoieni, final alternative (red line) following a new route



Fig.5.IV Initial alternative design (blue line) was considered to minimize overlap with forest land, final alternative (red line) following a new route



Fig.5.V Initial alternative design (purple line) was considered to avoid overlapping with areas of housing, final alternative (red line) following a new route

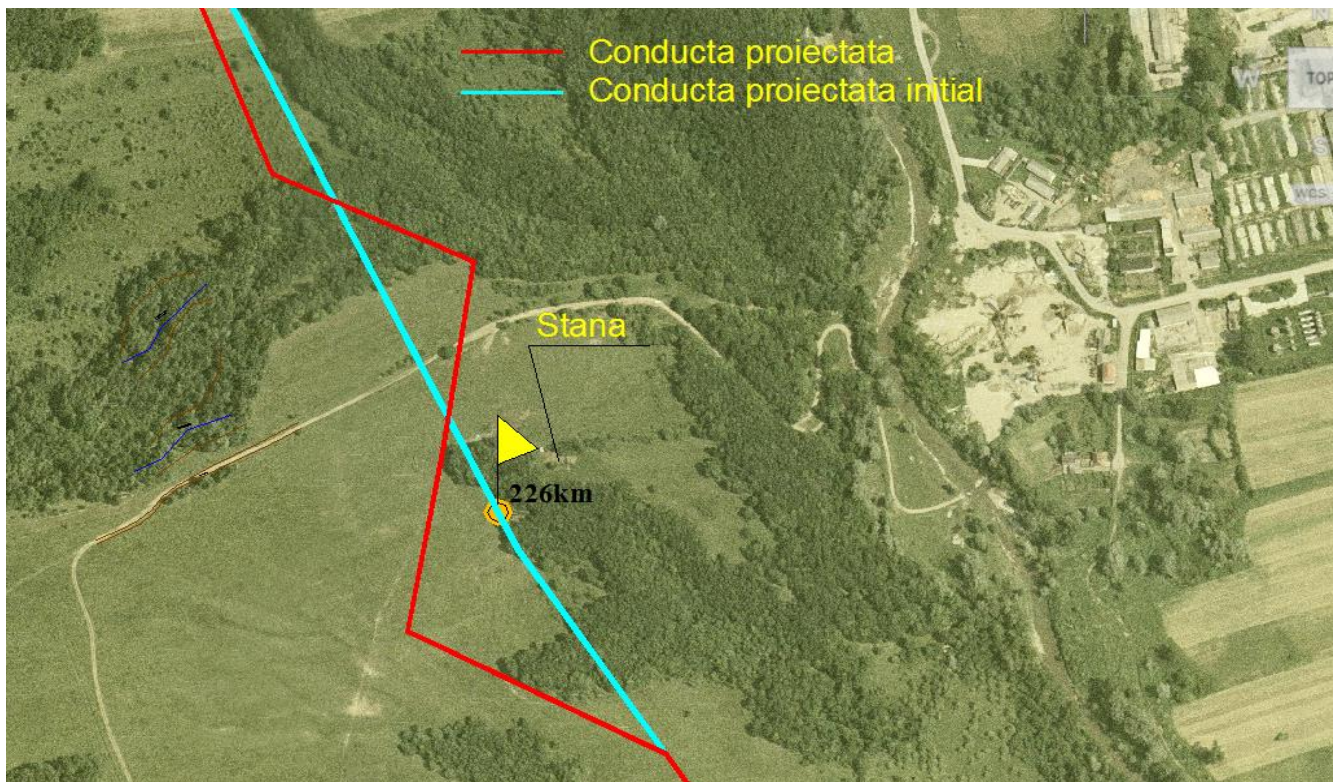


Fig.5.VI Initial alternative design (blue line) was considered to minimize overlap with forest land, but also to avoid disruption of local households (sheepfold), final alternative (red line) following a new route

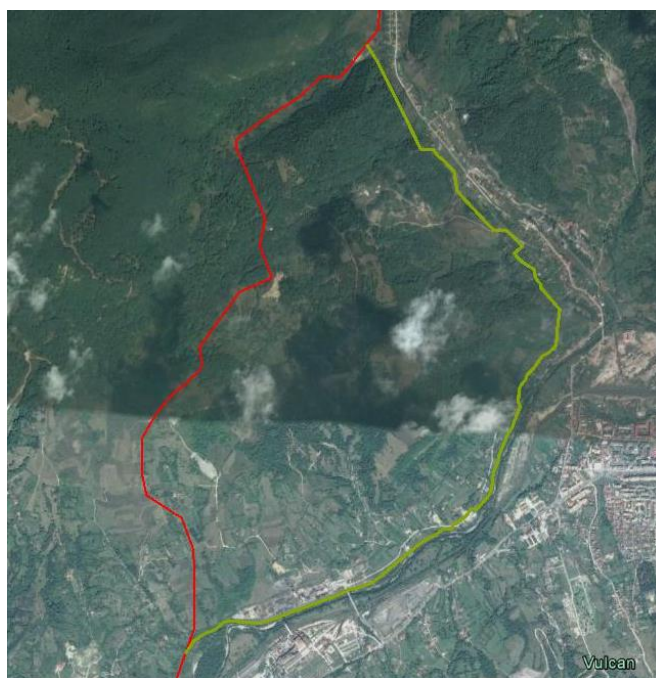


Fig.5.VII Initial alternative design (red line) was considered to minimize overlap with areas of risk subsidence due to underground mining in the area Vulcan final alternative (yellow line) following a new route

5.1.2. Alternative technical solution on building

As for the alternatives considered constructive, they have been analyzed in detail in the section in this regard were analyzed two possible solutions Location (surface / buried) and execution alternatives.

Thus, although the effort material, human and economic, is more important in terms of the solution to achieve BRUA burial, this solution keeps long-term impact lowest to the environment, eliminating the phenomena linked particularly fragmentation of habitats and preserving the continuity and permeability.

As for the alternatives execution BRUA project does not involve complicated techniques or technologies or high specificity. Stages of project execution appeals to simple solutions, classical (excavation, welding, laying, etc.) for which alternative spectrum remains limited.

5.2. Alternative "0" (zero)

Alternative "0" to abandon the project will lead to the loss of regional economic development opportunity extremely valuable knowing involvement gas resources extremely diverse economic sectors. Following the completion BRUA, expects regionally, in addition to the benefits of increased energy security, to register a recovery and significant development of certain industries.

If the project is kept abandonment situation of dependence on natural gas transportation routes is from the west, which compromises the energy security of the European continent as a whole. BRUA project contributes to strengthening energy security implies access to the resource (in this case: natural gas) in a safe manner and at a reasonable price. It is thus ensured a better control of routes and distribution, and create alternative opportunities to supply consumers, thus replacing situations energy dependence with the inter-dependence, admitting otherwise today that any concepts of independence energy, the current socio-economic context of the European States, remains a wish at least utopian.

In terms of social impact, the project BRUA will generate during construction a significant number of jobs, estimated at the equivalent of about 680 full-time for a period of approximately 24 months, which will add about 60 seats the Permanent (service personnel stage compression stations running). Thus, in the case of resignation to the project BRUA social impact remains significant.

5.3. Alternative energy

Natural gas is a mixture of gases that can be very different after placing the deposit. The largest part is made up of methane, which may also be added appreciable amounts of saturated hydrocarbons (alkanes), methane (CH_4), ethane (C_2H_6), propane (C_3H_8), unsaturated hydrocarbons, alkenes or olefins, and aromatic or arenas chemical formula that chain have a double bond (=) as ethene (ethylene) C_2H_4 . Alkanes that have a chemical structure and ring are called cycloalkanes general chemical formula C_nH_{2n} . Alkenes can also have cyclic forms as cyclopentane.

Alkynes are hydrocarbons containing several triple chemical bonds, the most representative is ethyne (acetylene): C_2H_2 . The last category is the most important of unsaturated hydrocarbons benzenulcare has a cyclic structural shape: C_6H_6 ; a subset of these aromatic hydrocarbon is naphthalene: C_{10}H_8 , while terpenes (turpentine) hydrocarbon is not chemically pure.

Natural gas also contains condensed vapor gas of which proceedings are called wet gases, hydrogen sulfide (H_2S), which requires the removal of sulfur and up to 9% carbon dioxide (CO_2) that diminish the quality of the gas.

In general, the natural gas has the composition of 85% methane, 4% other alkanes (ethane, propane, butane, pentane) and 11% inert gas (not burnt). Particularly valuable are the gas containing helium gas as the primary source of obtaining the helium.

Natural gas is a highly flammable mixture, usually tasteless and odorless (of which concerned freshener mercaptan gas is added in order to facilitate detection of possible emissions) with an ignition temperature of about 600°C . A gas lighter than air; 1 m^3N gas for burning are needed about 10 m^3N air. The gas composition is classified in different categories, gas poor and rich gas. Poor gas has a higher percentage of methane (87-99% volume), while the methane-rich gas content varies between 80 and 87% by volume, composition having greater amounts of carbon It

has the following features for calculating emissions plants to reduce nitrogen oxides even under the limit imposed by EU rules in force.

Other emissions data to the operation of steam boilers using gaseous fuels are insignificant.

To argue the importance of the project, show the degree of harm introduced by combustion in thermal power stations were considered three different fuels, respectively; a lignite from Rovinari, a radiator heating oil and natural gas distributed through the national gas network.

Rovinari lignite It has the following features for calculating emissions:

- Carbon content ... 63.77% mass participation;
- Hydrogen content ... 5.75% mass participation;
- Oxygen content ... 28.25% mass participation;
- Nitrogen content ... 1.73% mass participation;
- Sulfur content ... 0.52% mass participation;
- Humidity ... 40.85% mass participation;
- Ash content ... 16.97% mass participation.

If we estimate a mean power plants operating in the area of the proposed site at 2000 kW, ie slightly more than the rated average power a turbine, then we have a solid fuel »60.0 gr / sec at a lower calorific 41000Kj / Kg. The fuel consumption of the combustion gas means 1,10Nm³ / sec, in which:

Emission of carbon dioxide

In view of the chemical composition of the basic fuel amount of carbon dioxide resulting from the combustion is:

$$V_{CO_2} = 0,34 \text{ Nm}^3/\text{sec}, \text{ respectively } 31\% \text{ the volume of gas}$$

Emission of sulfur dioxide

Taking into account the volume of the same elemental sulfur dioxide will be:

$$V_{SO_2} = 10.0 \times 10^{-4} \text{ Nm}^3/\text{sec}, \text{ namely } 0,09\% \text{ the volume of gas.}$$

Mass flow of sulfur dioxide will be: $MSO_2 = 28,54 \times 10^{-4} \text{ Kg} / \text{sec}$. In terms of such a mass flow of sulfur dioxide emission resulting dioxide:

$$E_{SO_2} = \frac{M_{SO_2}}{V_{gg}} = \frac{2854}{1.1} = 2594 \text{ mg} / \text{Nm}^3 \text{ gaze}$$

The emission of sulfur dioxide exceeding the rules imposed by Ord.Nr.462 / 93 respectively 1700mg / Nm³ gas.

Particulate emissions

Particulate emissions of combustion installations of solid fuels depends on a number of factors involving the construction of the boiler, furnace construction, construction furnace grate, type of fuel used, the type of circulation boiler.

Current construction of boilers for thermal power plants, according to the specialist technical literature indicates a coefficient should, indicating share of ash in the exhaust to the basket, not exceeding 0.01. The amount of ashes discharged with flue gas is given by:

$$A_{gc} = a_r \cdot xA = 0,01 \times 0,5656 = 0,005656 \text{ kg} / \text{kg} \text{ of fuel, respectively } 42,0 \times 10^{-5} \text{ Kg of ash/sec.}$$

and the flow of exhaust gases of combustion ash is:

wherein: A - the ash content of the fuel anhydrous.

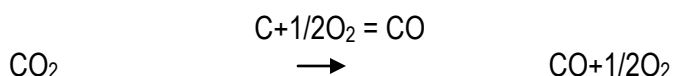
Particulate emissions in the exhaust gases to the basket will be:

$$E_p = \frac{A_h}{V_{gh}} = \frac{420}{1.10} = 382 \text{ mg/Nm}^3$$

This value particulate emissions exceed the limit imposed by Ord.Nr.462 / 93 and 50mg / Nm³.

Emission of carbon dioxide

CO concentration in the combustion gases depends on many factors, which is why a rigorous analytical calculation can not be done. In general the carbon monoxide in the flue gas occurs as a result of incomplete combustion from the chemical decomposition, and less carbon dioxide. The chemical reactions for the production of carbon monoxide are:



The first reaction is caused by lack of oxygen (air) due either to poor circulation either thermal and chemical inhomogeneity in the combustion chamber. The second reaction is less plausible because it is an endothermic reaction and therefore intensely occurs at very high temperatures that are reached relatively heavy outbreaks combustion plants. As a result the calculation to estimate the emission of carbon monoxide done, was considered only the first chemical reaction and heat efficiency of the boiler also that the best technical conditions can reach 92%. In these circumstances it was considered that 0.5% of the maximum carbon content of fuels burn incompletely, resulting in CO in an amount of 0,005x5,67 Nm³ CO = 0.00284 per kg fuel respectively 0.00354 kg CO / kg of fuel. CO flow resulting from combustion calculations is 18,06mg / sec and therefore the emission of CO will be:

$$E_{\text{CO}} = \frac{m_{\text{CO}}}{V_{\text{gh}}} = \frac{18,06}{0.330} = 54,7 \text{ mg/Nm}^3$$

CO emission estimated in this way is much smaller than that required by Ord.Nr.462 / 93 respectively 170 mg / Nm³.

The emission of nitrogen oxides (NOX)

The existence of nitrogen oxides from the flue gases is linked to the fulfillment of certain conditions of temperature and pressure. In general, even in the conditions of pressure and temperature of their formation, the proportion in the flue gas is reduced by up to 4000 ppm in some internal combustion engines.

Reactions to form oxides of nitrogen:

1. $\text{O} + \text{N}_2 = \text{NO} + \text{N}$
2. $\text{N} + \text{O}_2 = \text{NO} + \text{O}$
3. $\text{N} + \text{OH} = \text{NO} + \text{H}$

All these reactions occur at temperatures exceeding 10 000 C and pressures above 30 bar.

The mechanism of formation of nitrogen oxides in flue premises is explained in the literature by compressing mixtures propellant burned incompletely (the first stage ignited combustion) at high temperatures due to negative reaction energies required by the three chemical reactions (endothermic reactions).

The liquid fuel, radiator oil (tar based fuel) burned in furnaces of thermal power plants has the following characteristics necessary thermodynamic calculations average emissions:

- Carbon content ... 86,0% mass participation;
- Hydrogen content ... 10,0% mass participation;
- Oxygen content ... 1,4% mass participation;
- Nitrogen content ... 1,4% mass participation;
- Sulfur content ... 0,6% mass participation;
- Humidity ... 1,3% mass participation;
- Ash content ... 0,2% mass participation.

If we estimate the average power 2000 kW, ie slightly more than its nominal power, as in the previous case, then we will have a fuel consumption of liquid 115.0 gr / sec at a lower calorific 43000Kj / Kg . The fuel consumption of the combustion gas means 1,870Nm³ / sec, in which:

Emission of carbon dioxide

In view of the chemical composition of the basic fuel amount of carbon dioxide resulting from the combustion is:

$$V_{CO_2}=0,88 \text{ Nm}^3/\text{sec}, \text{ respectively } 33\% \text{ the volume of gas}$$

The emission of sulfur dioxide

Given the same volume of elemental sulfur dioxide will be:

$$V_{SO_2}=2,27 \times 10^{-3} \text{ Nm}^3/\text{sec}, \text{ namely } 0,1\% \text{ the volume of gas}$$

Mass flow of sulfur dioxide will be: $MSO_2 = 6,470 \times 10^{-3} \text{ Kg} / \text{sec}$. In terms of such a mass flow of sulfur dioxide emission resulting dioxide:

$$E_{SO_2} = \frac{M_{SO_2}}{V_{gg}} = \frac{6470}{1,870} = 3464 \text{ mg} / \text{Nm}^3 \text{ gaze}$$

The emission of sulfur dioxide far exceed the standards required by Ord.Nr.462 / 93 respectively 1700mg / Nm³ gas.

Particulate emissions

Particulate emissions from combustion of liquid due to the current performance of combustion plants is very low, reaching the coefficient would be "10 times smaller than the solid fuel combustion. Given the much smaller and content of this fuel ash particulate emissions will be much lower and will be within the limits imposed by Ord.Nr.462 / 93.

Emission of carbon dioxide

Like in the case of particulate emissions and for carbon monoxide emissions, they will be lower than when firing solid fuels because the burning is done under more optimal.

In most cases the plants burning liquid fuels from carbon monoxide emissions are within the limits imposed by Ord.Nr.462 / 93 and 170 mg / Nm³.

The emission of nitrogen oxides (NOx)

Due to higher working temperatures installations combustion of liquid nitrogen oxides likelihood is greater and therefore performing these installations followed in terms of reducing pollution and reducing opportunities through various technical solutions forming nitrogen oxides.

The mechanism of formation of nitrogen oxides in the premises of burning is explained in the literature by compressing mixtures propellant burned incompletely (the heated first phase of combustion) at high temperatures due to negative energies reaction claimed by the three chemical reactions (endothermic reactions). Nitrogen oxides encounter this type of power plants are valued both in technical literature and from measurements made at power plants similar to 102-105kg / year for NO and 155-160kg / year for NOx. Order MPMGA 1144/2002 provides a threshold of 10000kg / year and 100000kg NO / NOx year, resulting in a much higher than emissions from such plants.

In conclusion, among conventional fuels for heating (domestic or industrial), but also for electricity, natural gas resources are those which emit the lowest emissions, widespread use, remaining far the friendliest solution to environmental factors.

5.4. Justification for the proposed variant compared to the other alternatives studied from the point of view of environmental protection

In choosing the final BRUA, study alternatives were considered the following criteria:

1. The solution for the efficient use of valuable energy resources, involving low environmental costs, such as natural gas compared to other energy options; its value system and the availability (facility) date solutions and possibilities for organization and development of public utility networks in order to use the extended household;
2. Solutions route followed minimizing overlap with natural interest objectives, tourism and related economic and social sphere, so that the environmental costs are minimized;

3. The possibility of promoting best available techniques (BAT) relevant since the design phase up to the execution or operation solutions that included as a core element and the main environmental protection;
4. Promotion to the rank of the concept precautionary principle bedside in order to avoid and minimize (where it was possible even cancellation) Environmental Impact;

All these elements contained in the phase of the project were naturally reflected by the initial regulatory documents (Urban planning). See also section 2.1. and 1.10.

5.5. Impact Size Analysis

A quantification of the size of impact was achieved by applying common methodologies and technologies widely used, besides enabling impact analysis and comparison of the size of projects or project phases within the project or time horizons. It was used as:

- ROJANSCHI¹ ILLUSTRATIVE METHOD, allowing an illustration of the impact by analytical size of geometric shapes, super-imposed;

The impact was analyzed for each medium (water, air, soil, geology and subsoil, biodiversity, landscape, social and economic environment) are analyzed and reasonable alternatives.

- LEOPOLD² MATRIX but in a more complex approach that takes into account the categories of impact as they were defined for Natura 2000 sites (in terms of interaction design with a number of such protected areas), which facilitated the granting of a score Scoring taking into account the level of impact on the magnitude and importance associated with each of the impacts;

5.5.1. Rojanschi Illustrative method

Environmental quality indicators estimate was made taking into account the creditworthiness of their tabulated nr.5.I.

Tabelul nr.5.I Scara de bonitate a indicilor de calitate a mediului

Note creditworthiness	I _c value	The effects of activity on the environment
1	2	3
10	I _c = 0	– Unaffected environment
9	I _c = 0,0 - 0,25	– Environment affected in the permissible limits – Level 1 – Big positive influences
8	I _c = 0,25 - 0,50	– Environment affected in the permissible limits – Level 2 – Medium positive influences
7	I _c = 0,50 - 1,0	– Environment affected in the permissible limits – Level 3 – Low positive influences

¹Rojanschi, V. (1991): “**Posibilități de evaluare globală a impactului poluării asupra calității ecosistemelor**” Mediul Inconjurător, abordări sistematice, Vol. II nr. 1-2 (45-52)

²Leopold, L. B., F. E. Clarke, B. B. Hanshaw, and J. E. Balsley(1971):“**A procedure for evaluating environmental impact**”. U.S. Geological Survey Circular 645, Washington, D.C.

Note creditworthiness	I _c value	The effects of activity on the environment
6	I _c = -1,0	<ul style="list-style-type: none"> Environment affected over the permissible limits Level 1 Negative effects
5	I _c = -1,0 → -0,5	<ul style="list-style-type: none"> Environment affected over the permissible limits Level 2 Negative effects
4	I _c = -0,5 → -0,25	<ul style="list-style-type: none"> Environment affected over the permissible limits Level 3 Negative effects
3	I _c = -0,25 → -0,025	<ul style="list-style-type: none"> Environment is degraded Level 1 The effects are harmful to long durations of exposure
2	I _c = -0,025 → -0,0025	<ul style="list-style-type: none"> Environment is degraded Level 2 The effects are harmful to long durations of exposure
1	I _c = under -0,0025	<ul style="list-style-type: none"> Environment is degraded Level 3 The effects are harmful to long durations of exposure

⇒ Water quality index (I_c WATER)

Currently, referring to the project site, water sources are not affected in terms for drinking or affected by discharges of pollutants or other pollutants. Investing involves not taking the average of water flow, or large volumes, and during construction, operation and decommissioning will not affect water quality. Diminuare measures are provided consistent impact impementare each stage of the project and measures for reconstruction of affected areas (riparian areas, etc.).

In these circumstances we allocate I_c WATER = 0,5-1

⇒ AIR quality index (I_c AIR)

Air environmental factor will not be affected only very limited during execution.

We allocate I_c air = 0 -0,25

⇒ Soil, vegetation and fauna quality index (I_c S,V,F)

The activities carried out in the execution phase of the investment objective environmental factors affect soil, subsoil, vegetation and fauna, but with completion of land will be brought to its original state.

Could not reveal a significant impact on individual species / habitats or biodiversity of overview.

Under these conditions, we estimate that the objective will lead to damage within reasonable limits on environmental factors soil, subsoil, vegetation and fauna, which means I_c S,V,F = 0,25-0,5.

⇒ HUMAN SETTLEMENTS quality index, (I_c AȘ. UM.)

The investment will increase the local supply of jobs.

Therefore, total quality index I_c AȘ. UM. It is estimated to be equal to 0, whereas the objective will have positive effects on the environmental factor HUMAN SETTLEMENTS.

• Interpretation of results on environmental factors

Establishing grades of creditworthiness (see table nr.5.II) for quality index calculated for each medium is made using quality indiceluide scale creditworthiness, reliability assigning notes corresponding to the value of each index as calculated.

Tabelul nr.5.II Tabelul de bonitare pentru investiția propusă

ENVIRONMENTAL FACTOR	I _c	N _b
WATER	0,5-1	7
AIR	0-0,25	9
SOIL, VEGETATION, FAUNA	0,25-0,5	8
HUMAN SETTLEMENTS	0	10

The analysis notes the following conclusions creditworthiness:

- Environmental factors soil, vegetation and fauna will be affected in permissible limits, level 1;
- Water will be the environmental factor affecting the permissible limits, Level 1;
- Air environmental factor will be affected permissible limits, Level 1;
- HUMAN SETTLEMENTS environmental factor will be positively influenced by objective operation.

Global pollution index calculation

To simulate the synergistic effect of pollutants using Rojanschi V. exemplary method, using grades of creditworthiness for clues quality of the environment is built assign a chart. The ideal state is represented graphically by a regular geometric figure inscribed in a circle with a radius equal to 10 units of creditworthiness.

Method for measuring the overall impact is based on the quantitative expression of the state of environmental pollution on global pollution index I.P.G. This index results from the ratio of the ideal state S_i and S_r real state of the environment.

The graphic method proposed by V. Rojanschi, is to determine the overall pollution index represents the ratio of surface area represents the ideal state and the actual state, meaning:

$$I.P.G. = S_i / S_r$$

unde:

S_i = country area for ideal environment;

S_r = actual state of the surface environment;

For I.P.G. = 1 - there is no pollution;

For I.P.G. > 1 - there are changes in environmental quality.

On the basis of U.P.G. It has established a large environmental quality (see table nr.5.III).

Tabelul nr.5.III Scara privind calitatea mediului

I.P.G. value I.P.G. = S _i / S _r	The effects of activity on the environment
I.P.G. = 1	– The environment is naturally affected by human activity
I.P.G. = 1 – 2	– The environment is affected by human activity within acceptable limits
I.P.G. = 2 – 3	– The environment is affected by human activity causing discomfort to life-forms
I.P.G. = 3 – 4	– The environment is affected disorder causing life forms
I.P.G. = 4 – 6	– The environment is affected by human activity becomes dangerous life forms
I.P.G. > 6	– The environment is degraded, inappropriate forms of life

Objective studied the relationship between notes graphics creditworthiness calculated environmental factors is an irregular geometric figure, whose surface is $S_r = 144$.

It follows that I.P.G. which will determine the investment will be:

$$I.P.G. = S_i / S_r = 200 / 144$$

$$I.P.G. = 1,38$$

I.P.G. global pollution index has a value of 1.38 indicating that **BRUA investment realization will be within the allowable limits of environmental damage** (see fig.5.VIII).

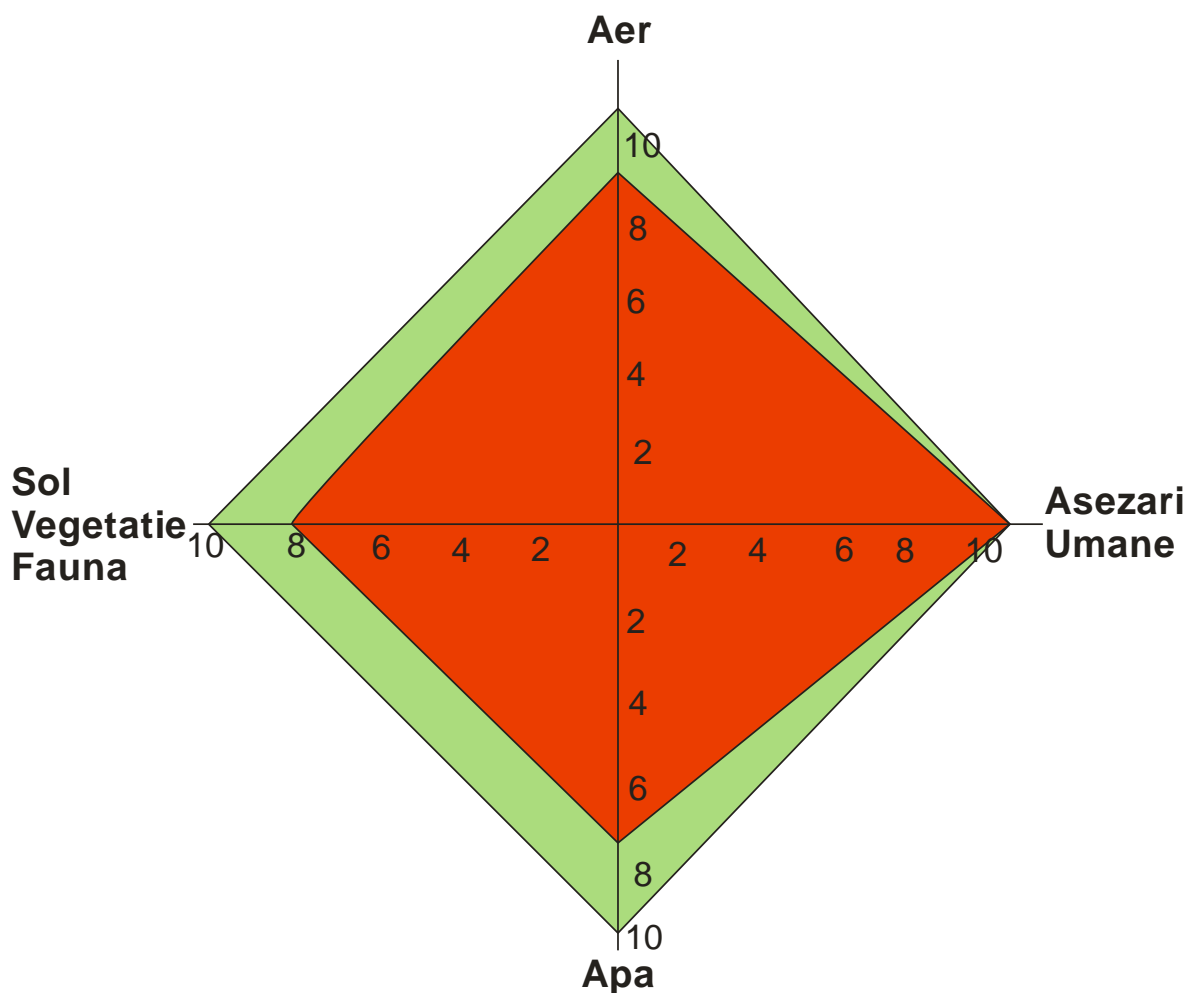


Fig.5.VIII ROJANSCHII CHART
referring to the project to BRUA

5.5.2. Impact Assessment by completing Leopold matrix

Following coded system of human impact activities proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact now, or so-called analysis of the current state of the perimeter studied.

Starting from the principle of analiză of mărimii impact proposed by Rojanschi based on the methodology illustrative overlay proportional over certain geometrical figures, for all the species criterion Natura 2000 area have made suitable arrangements whereby sized, impact is reprezentată according to a scări 6 levels (from 0-5).

For species / habitat conservation interest upon which established the existence of a potential impact of the project was a detailed analysis, accompanied by measures mitigation.

For each species / habitat was allocated a touch of relevance in order to establish a global value index impactation.

Relevance notes were set as follows:

- 0 - the project does not generate any impact on the species / habitat respectively;
- 1 - project generates little impact on the species / habitat respectively, present mainly through indirect effects;
- 2 - project generates a limited impact on the species / habitat respectively;
- 3 - project generates significant species / habitat respectively, but it is reversible even in the absence of any ecological restoration;
- 4 - generating project impact on the species / habitat respectively, but ecological restoration measures are;
- 5 - project generates a significant and irreversible impact on the species / habitat respectively.

Further, where was imposed, was applied the principle proposed by Leopold for environmental impact assessment, widely used in the technical documentation specialist, we adapted the categories of impact on the associated Natura 2000 sites, setting for the impact categories considered attributes "magnitude" and "importance".

Magnitude attribute is used here to express the expansion scale impact. Expressions extension ladder is made is the percentage impact, and for a better illustration, it has used a color code (see table nr.5.IV).

Tabelul nr.5.IV Color codes

Magnitude		
Note	Percentage habitat area affected criterion / species population criterion	Color code
1	<1%	
2	2-5%	
3	6-15%	
4	16-30%	
5	31-45%	
6	45-55%	
7	56-65%	
8	66-75%	
9	76-90%	
10	91-100%	

Attribute importance in this context is used to express the significance of the impact. Expression percentage impact significance is made, and for a better illustration, it has used a color code (see table nr.5.V)

Tabelul nr.5.V The significance of the impact

Importance		
Note	Impact effect	Color code
1	Unlikely impact	
2	Likely impact, if confirmation of item criterion	
3	Likely impact potentially on items criterion	
4	Impact live, limited, low intensity on items criterion	
5	Direct impact in potentially hazardous elements criterion	
6	Indirect impact that will significantly affect the criterion items	
7	Direct impact, however limited, while reversible even in the absence of countervailing measures	
8	Direct impact that will affect the elements of criteria, compensated through the application of mitigation measures	
9	Direct impact following elements endangering criterion imposing countervailing measures	

10 Direct impact leading to cancellation / extinction element criterion

Cumulative level of impact on the species / habitats within the site criterion expressed by a method adapted from the model proposed deRojanski illustrative, using notes relevance is interpreted via a chart.

The ideal state is graphically represented by a geometric figure as having 100% expressed as a percentage defining elements only criterion that led to the designation of the site multiplied by five possible state.

Linking percent synthetic, can be expressed as the percent:

- **0%** - the project does not generate any kind of impact on all species / habitats criterion;
- **0-20%** - project generates little impact on the overall species / habitats criterion;
- **20-40%** - project generates a limited impact on the overall species / habitats criterion;
- **40-60%** - project generates a large impact on the overall significance of the species / habitats criterion;
- **60-80%** - project generates particularly high significance impact on all species / habitats criterion measures imposing complex compensation / ecological restoration;
- **80-100%** - project generates a broad impact on all species / habitats criterion leads to irreversible impairment of a natural heritage site.

Notes relevance will structure a diagram in which each Quadratus will receive a percentage that will report the total number of quadrants.

Expression will reveal the percentage of the cumulative impact on biodiversity.

The total number of quadrants that reveals the presence of impact is null, not identified a potential impact on species criterion which led to the designation of the site. This situation is represented in the table. 3.II.

A statement on the magnitude of the impact calculated for each site separately.

5.5.2.1. ROSCI0063 Jiu Valley

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied.

In this regard, following categories of impacts associated with human activities has been prepared table nr.5.VI. state in which identified 55 impact categories currently in the pre-project site level.

Table nr.5.VI. Impact categories identified in the Jiu Valley ROSCI0063

Code	Category	
	Agriculture, forestry	
100	Cultivation	
101	modification of cultivation techniques	X
102	trimming / cutting	X
110	use of pesticides	X
120	Fertilization	X
130	Irrigation	X
140	Pasture	X
141	abandonment of pastoral systems	X
150	Restructuring possession of land	X
151	removing hedges and kangaroos	X
160	Overall management of forestry	X
161	forestation	
162	artificial planting	X
163	forestation	
164	deforestation	X
165	removing undergrowth	X
166	removing dead trees and sick	X
167	operation without reforestation	X
170	Livestock	X

Code	Category	
171	Feedings	X
180	Burning	X
190	Agricultural and forestry activities mentioned above	
	Fishing, hunting and collecting bodies	
200	Fishery and cunicultura	
210	Professional fishing	
211	fishing fixed place	
212	fishing trawler	
213	purse	
220	Recreational fisheries	
221	putting bait	
230	Hunting	X
240	Assembly / Removal of fauna; general	
241	collection (insects, reptiles, amphibians etc..)	
242	removal of the nest (a falcon)	
243	trapping, poisoning, poaching	
244	gathering other forms of wildlife	
250	Assembly / removal of flora; general	
251	theft flower areas	
290	By hunting, fishing or gathering above	
	Mining and extraction of materials	
300	Sand and gravel extraction	X
301	careers	X
302	removal of the seaside	
310	Peat extraction	
311	manual cutting peat	
312	mechanical removal of peat	
320	Exploration and production of oil and natural gas	
330	Mines	
331	daily mining	X
332	underground mining	X
340	Salt mines	
390	Mining and extraction of materials listed above	
	Urbanization, industrialization and similar activities	
400	Urbanized areas, human habitation	X
401	permanent settlements	X
402	staple settlements	X
403	dispersed settlements	X
409	other settlements	X
410	Industrial or commercial areas	
411	factories	
412	industrial warehouses	X
419	other industrial or commercial areas	
420	Evictions	
421	storing waste	X
422	industrial waste storage	X
423	storage of inert materials	X
424	other releases	
430	Agricultural structures	X
440	Storing	
490	Other activities urban, industrial and similar	X
	Transport and communications	
500	Communications networks	

Code	Category	
501	paths, tracks, routes for cyclists	
502	roads, highways	X
503	railway line, the TGV	X
504	port areas	
505	airports	
506	airfields, heliports	
507	bridges, viaducts	
508	tunnels	X
509	other communications networks	
510	Energy transport	X
511	power lines	X
512	oil pipeline	
513	other forms of energy transportation	
520	Naval transport	X
530	Improving access to site	
590	Other forms of transport and communications	
	Recreation and Tourism (some are included above under other names)	
600	Leisure and tourism structures	
601	golf courses	
602	ski runs	
603	stadiums	
604	tours, trails	
605	racecourses	
606	amusement parks	
607	Uneven sports	
608	camping for caravans and campers	
609	other complex leisure / sport	X
610	Interpretation Centre	X
620	Outdoor sports and leisure activities	X
621	water sports	
622	walking, horse riding and non-motorized vehicles	
623	motor vehicles	X
624	mountaineering, climbing and caving	X
625	sport of hang gliding, hang gliding, paragliding and balloon	
626	skiing, extreme sports (trails off)	
629	other outdoor sports and leisure	
690	Other outdoor sports and recreational above	X
	Pollution and other activities / impacts of human activities	
700	Pollution	X
701	water pollution	X
702	air pollution	X
703	soil pollution	X
709	or other combined forms of pollution	
710	Noise pollution	X
720	Travel by unauthorized vessels; wear	
730	Military maneuvers	
740	Vandalism	X
790	Other activities and polluting consequences	
	Status changes damp marine environments induced by human activity	
800	Fitting garbage dumps, impoundment and drying the earth; general	
801	damming depressions	
802	damming land area marine or estuarine marshes	
803	backfilling ditches, dams, ponds, ponds, marshes or pits	
810	Draining	
811	aquatic and shore vegetation management to drain	

Code	Category	
820	Removal of sediments (mud ...)	
830	Sewerage	
840	Flooding	
850	Modifying the river system; general	
851	changing sea currents	
852	changing the structures that comprise the continental watercourses	
853	management of the water levels	
860	Filing and storage of silt in suspension	
870	Weirs, dams, artificial beaches; general	
871	defense works in front of the sea or the protection of the coast	
890	Hydraulic other status changes due to human	
	Natural processes (biotic and abiotic)	
900	Erosion	
910	Alluvial	
920	Drying	
930	Flooding	
940	Natural disasters	
941	flood	
942	avalanche	
943	diving terrain and landslides	
944	storms, cyclones	
945	volcanoes	
946	earthquakes	
947	tide	
948	fire (natural)	
949	other natural disasters	
950	Biocenotic evolution	
951	accumulation of the organic material	X
952	eutrophication	
953	acidification	
954	a species invasion	X
960	Interspecific faunal relationships	
961	competition (eg: Gull / gurnard)	
962	parasitism	X
963	introduction of a disease	
964	genetic pollution	
965	beasts of prey	
966	antagonism due to the introduction of a new species	
967	domestic animals antagonism	
969	other forms or mixed forms of interspecific faunal relations	
970	Floristic relationships interspecific	
971	competition	
972	parasitism	
973	introduction of a disease	
974	genetic pollution	
975	lack of pollination agents	
976	damage due to wind	
979	other forms or mixed forms of flora interspecific relations	
990	Other natural processes	

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSCI0063 Jiu Valley is summarized in Table nr.5.VII., And were considered three levels of impact:

- red = significant level of reconciliation;
- yellow = moderate level of reconciliation;
- green = low level of compaction;

Table nr.5.VII. Assessment of the current state of conservation of the site ROSCI0063 Jiu Valley

Crt.	Name	Code	%	of total surface (ha)
1.	Rivers, lakes	511, 512	3	328,38
2.	Natural grasslands, steppes	321	7	766,22
3.	Deciduous	311	88	9632,48
4.	Coniferous forests	312	2	218,92

The whole site is presented with a good state of preservation, but with extensive areas subjected to a moderate level impactation.

The impact criterion BRUA the elements that led to the designation ROSCI0063 Jiu Valley is shown in Table nr.5.VIII.

Table nr.5.VIII Note the relevance of the impact BRUA given criterion elements that led to the designation of the site ROSCI0063 Jiu Valley

Nr. Crt.	Species / habitat	Relevance note	Justification
1.	91V0 Dacian Beech forests (<i>Symphyto-Fagion</i>)	0	The project does not overlap with forest areas at ROSCI0063.
2.	91E0 * Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	0	The project does not overlap with forest areas at ROSCI0063.
3.	Salix eleagnos 3240 woody vegetation along the mountain rivers	0	The project does not overlap with forest areas at ROSCI0063.
4.	3230 Myricaria woody vegetation along rivers Germanic mountain	0	The project does not overlap with forest areas at ROSCI0063.
5.	3220 herbaceous vegetation alongside mountain rivers	0	The project does not overlap with wetlands perimeters at ROSCI0063.
6.	7220 * Petrifying springs with travertine formations (<i>Cratoneurion</i>)	0	The project does not overlap with wetlands perimeters at ROSCI0063.
7.	9170 Oak and hornbeam forests <i>Galio-type Carpinetum</i>	0	The project does not overlap with forest areas at ROSCI0063.
8.	9110 Beech forests of <i>Luzulo-Fagetum</i>	0	The project does not overlap with forest areas at ROSCI0063.
9.	9130 Beech forests <i>Fagetum Asperulo</i>	0	The project does not overlap with forest areas at ROSCI0063.
10.	91L0 Illyrian oak and hornbeam forests (<i>Erythronio-Carpiniori</i>)	0	The project does not overlap with forest areas at ROSCI0063.
11.	9410 Forest acidofile <i>Picea Abies</i> in the mountain region (<i>Vaccinio-Piceetea</i>)	0	The project does not overlap with forest areas at ROSCI0063.
12.	8220 vegetated rocky slopes chasmophytic siliceous rocks	0	The project does not overlap with parietal perimeters, with rocky slopes at ROSCI0063.
13.	6430 Communities of tall grass skirt hygrophilic from the lowlands up to mountain and alpine	0	The project does not overlap with forest areas at ROSCI0063.
14.	1304 <i>Rhinolophus ferrumequinum</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.

Nr. Crt.	Species / habitat	Relevance note	Justification
15.	1324 <i>Myotis myotis</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
16.	1307 <i>Myotis blythii</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
17.	1310 <i>Miniopterus scheibersi</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
18.	1361 <i>Lynx lynx</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
19.	1354 <i>Ursus arctos</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
20.	1355 <i>Lutra lutra</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
21.	1166 <i>Triturus cristatus</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
22.	1193 <i>Bombina variegata</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
23.	1138 <i>Barbus meridionalis</i>	0	The project does not affect watercourses from the ROSCI0063. Resident populations at the site are not affected.
24.	1163 <i>Cottus gobio</i>	0	The project does not affect watercourses from the ROSCI0063. Resident populations at the site are not affected.
25.	1122 <i>Gobio uranoscopus</i>	0	The project does not affect watercourses from the ROSCI0063. Resident populations at the site are not affected.
26.	1146 <i>Sabanejewia aurata</i>	0	The project does not affect watercourses from the ROSCI0063. Resident populations at the site are not affected.
27.	1084 <i>Osmoderma eremita</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
28.	4026 <i>Rhysodes sulcatus</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
29.	1083 <i>Lucanus cervus</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
30.	1088 <i>Cerambyx cerdo</i>	0	The project is unable to affect critical habitat used by this species. Resident

Nr. Crt.	Species / habitat	Relevance note	Justification
			populations at the site are not affected.
31.	1093 <i>Autropotamonius torrentium</i>	0	The project does not affect watercourses from the ROSCI0063. Resident populations at the site are not affected.
32.	1089 <i>Morimus funereus</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
33.	1087 <i>Rosalia alpina</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
34.	1086 <i>Cucujus cinnaberinus</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
35.	4116 <i>Tozzia carpathica</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.

In the absence of a direct impact or indirect criterion on the elements that led to the designation of the site gives a neutral level of cumulative impact, regardless of the number and intensity of other categories of impact occurred at the site.

Thus implementing assessment scheme based on the cumulative impact matrix Leopold for the site Jiu Valley ROSCI0063 express a null value.

5.5.2.2. ROSCI0109 Lunca Timișului

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied.

In this regard, following categories of impacts associated with human activities has been prepared table nr.5.IX state in which identified 71 impact categories currently in the pre-project site level.

Table nr.5.IX Impact categories currently in the pre-project site level

Code	Category	
	Agriculture, forestry	
100	Cultivation	
101	modification of cultivation techniques	X
102	trimming / cutting	X
110	use of pesticides	X
120	Fertilization	X
130	Irrigation	X
140	Pasture	X
141	abandonment of pastoral systems	X
150	Restructuring possession of land	X
151	removing hedges and kangaroos	X
160	Overall management of forestry	X
161	forestation	
162	artificial planting	X
163	forestation	
164	deforestation	X
165	removing undergrowth	X
166	removing dead trees and sick	X

Code	Category	
167	operation without reforestation	X
170	Livestock	X
171	Feedings	X
180	Burning	X
190	Agricultural and forestry activities mentioned above	
	Fishing, hunting and collecting bodies	X
200	Fishery and cunicultura	
210	Professional fishing	
211	fishing fixed place	X
212	fishing trawler	
213	purse	X
220	Recreational fisheries	X
221	putting bait	X
230	Hunting	X
240	Assembly / Removal of fauna; general	
241	collection (insects, reptiles, amphibians etc..)	
242	removal of the nest (a falcon)	
243	trapping, poisoning, poaching	X
244	gathering other forms of wildlife	
250	Assembly / removal of flora; general	X
251	theft flower areas	
290	By hunting, fishing or gathering above	
	Mining and extraction of materials	
300	Sand and gravel extraction	X
301	careers	
302	removal of the seaside	
310	Peat extraction	
311	manual cutting peat	
312	mechanical removal of peat	
320	Exploration and production of oil and natural gas	
330	Mines	
331	daily mining	
332	underground mining	
340	Salt mines	
390	Mining and extraction of materials listed above	
	Urbanization, industrialization and similar activities	
400	Urbanized areas, human habitation	X
401	permanent settlements	X
402	staple settlements	X
403	dispersed settlements	X
409	other settlements	X
410	Industrial or commercial areas	
411	factories	
412	industrial warehouses	X
419	other industrial or commercial areas	
420	Evictions	
421	storing waste	X
422	industrial waste storage	X
423	storage of inert materials	X
424	other releases	
430	Agricultural structures	X
440	Storing	
490	Other activities urban, industrial and similar	X

Code	Category	
	Transport and communications	
500	Communications networks	X
501	paths, tracks, routes for cyclists	X
502	roads, highways	X
503	railway line, the TGV	X
504	port areas	
505	airports	
506	airfields, heliports	
507	bridges, viaducts	X
508	tunnels	
509	other communications networks	
510	Energy transport	X
511	power lines	X
512	oil pipeline	
513	other forms of energy transportation	
520	Naval transport	X
530	Improving access to site	
590	Other forms of transport and communications	
	Recreation and Tourism (some are included above under other names)	
600	Leisure and tourism structures	
601	golf courses	
602	ski runs	
603	stadiums	
604	tours, trails	
605	racecourses	
606	amusement parks	
607	Uneven sports	
608	camping for caravans and campers	
609	other complex leisure / sport	X
610	Interpretation Centre	X
620	Outdoor sports and leisure activities	X
621	water sports	X
622	walking, horse riding and non-motorized vehicles	
623	motor vehicles	X
624	mountaineering, climbing and caving	X
625	sport of hang gliding, hang gliding, paragliding and balloon	
626	skiing, extreme sports (trails off)	
629	other outdoor sports and leisure	
690	Other outdoor sports and recreational above	
	Pollution and other activities / impacts of human activities	
700	Pollution	X
701	water pollution	X
702	air pollution	X
703	soil pollution	X
709	or other combined forms of pollution	
710	Noise pollution	X
720	Travel by unauthorized vessels; wear	
730	Military maneuvers	
740	Vandalism	X
790	Other activities and polluting consequences	
	Status changes damp marine environments induced by human activity	
800	Fitting garbage dumps, impoundment and drying the earth; general	
801	damming depressions	X
802	damming land area marine or estuarine marshes	
803	backfilling ditches, dams, ponds, ponds, marshes or pits	X

Code	Category	
810	Draining	X
811	aquatic and shore vegetation management to drain	X
820	Removal of sediments (mud ...)	X
830	Sewerage	X
840	Flooding	
850	Modifying the river system; general	
851	changing sea currents	
852	changing the structures that comprise the continental watercourses	
853	management of the water levels	
860	Filing and storage of silt in suspension	
870	Weirs, dams, artificial beaches; general	
871	defense works in front of the sea or the protection of the coast	
890	Hydraulic other status changes due to human	X
	Natural processes (biotic and abiotic)	
900	Erosion	X
910	Alluvial	
920	Drying	X
930	Flooding	
940	Natural disasters	
941	flood	
942	avalanche	
943	diving terrain and landslides	
944	storms, cyclones	
945	volcanoes	
946	earthquakes	
947	tide	
948	fire (natural)	
949	other natural disasters	
950	Biocenotic evolution	
951	accumulation of the organic material	X
952	eutrophication	X
953	acidification	
954	a species invasion	X
960	Interspecific faunal relationships	
961	competition (eg: Gull / gurnard)	
962	parasitism	X
963	introduction of a disease	
964	genetic pollution	
965	beasts of prey	
966	antagonism due to the introduction of a new species	
967	domestic animals antagonism	
969	other forms or mixed forms of interspecific faunal relations	
970	Floristic relationships interspecific	
971	competition	
972	parasitism	
973	introduction of a disease	
974	genetic pollution	
975	lack of pollination agents	
976	damage due to wind	
979	other forms or mixed forms of flora interspecific relations	
990	Other natural processes	

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSCI0109 Meadow Timis, is summarized in Table nr.5.X, and were considered three levels of impactation:

- red = significant level of reconciliation;

- yellow = moderate level of reconciliation;
- green = low level of compaction;

Table nr.5.X Appreciation of the current state of conservation of the site ROSCI0109 Lunca Timișului

Crt.	Name	Code	%	of total surface (ha)
1	Swamps, bogs	411,412	4	396.76
2	Crops (arable)	211-213	7	694.33
3	Pastures	231	2	198.38
4	Other arable land	242, 243	33	3273.27
5	Deciduous	311	54	5356.26

The whole site is presented with a good state of preservation, but with extensive areas subjected to a moderate level impactation.

The impact criterion BRUA the elements that led to the designation ROSCI0109 Meadow Timis is shown in Table nr.5.XI.

Table nr.5.XI Note the relevance of the impact BRUA given criterion elements that led to the designation of the ROSCI0109 Lunca Timișului site

Nr. Crt.	Species/habitat	Relevance note	Justification
1	3260 Water courses in the plains, to the mountain vegetation in <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i>	0	BRUA does not overlap with the project blocks included in ROSCI0109. The habitat is not present in the area of interest.
2	92A0 Groves with <i>Populus alba</i> and <i>Salix alba</i> (2%)	0	BRUA does not overlap with the project blocks included in ROSCI0109. The habitat is not present in the area of interest.
3	3270 Rivers with muddy banks with vegetation <i>Chenopodium rubri</i> and <i>Bidentium</i> (0001)	0	BRUA does not overlap with the project blocks included in ROSCI0109. The habitat is not present in the area of interest.
4	6510 Low altitude meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>) (1%)	0	BRUA does not overlap with the project blocks included in ROSCI0109. The habitat is not present in the area of interest.
5	1324 <i>Myotis myotis</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
6	1188 <i>Bombina bombina</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
7	1149 <i>Cobitis taenia</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
8	1124 <i>Gobio albipinnatus</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
9	2511 <i>Gobio kessleri</i>	0	The BRUA project is conducted outside

Nr. Crt.	Species/habitat	Relevance note	Justification
			ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
10	1145 <i>Misgurnus fossilis</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
11	1134 <i>Rhodeus sericeus amarus</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
12	1146 <i>Sabanejewia aurata</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
13	1160 <i>Zingel streber</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
14	2555 <i>Gymnocephalus baloni</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
15	1130 <i>Aspius aspius</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
16	1159 <i>Zingel zingel</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
17	1122 <i>Gobio uranoscopus</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
18	1032 <i>Unio crassus</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
19	4032 <i>Dioszeghyana schmidtii</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.
20	1052 <i>Euphydryas maturna</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.

Nr. Crt.	Species/habitat	Relevance note	Justification
21	1428 <i>Marsilea quadrifolia</i>	0	The BRUA project is conducted outside ROSCI0109 and does not affect vital habitats of the species directly or significant populations of such species.

5.5.2.3. ROSCI0129 North West Gori

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied .

In this regard, following categories of impacts associated with human activities has been prepared nr.5.XII table, in which identified 69 impact categories currently under pre-project at the site. For the 69 impact categories was made a cursory explanation.

Table nr.5.XII Impact categories identified in ROSCI0129 Nordul Gorjului de Vest

Code	Category	
100	Agriculture, forestry	
101	Cultivation	
102	modification of cultivation techniques	X
110	trimming / cutting	X
120	use of pesticides	X
130	Fertilization	X
140	Irrigation	X
141	Pasture	X
150	abandonment of pastoral systems	X
151	Restructuring possession of land	X
160	removing hedges and kangaroos	X
161	Overall management of forestry	X
162	forestation	X
163	artificial planting	X
164	forestation	X
165	deforestation	X
166	removing undergrowth	X
167	removing dead trees and sick	X
170	operation without reforestation	X
171	Livestock	X
180	Feedings	X
190	Burning	X
190	Agricultural and forestry activities mentioned above	
200	Fishing, hunting and collecting bodies	
210	Fishery and cunicultura	
211	Professional fishing	
212	fishing fixed place	
213	fishing trawler	
220	purse	
221	Recreational fisheries	X
230	putting bait	X
240	Hunting	X
241	Assembly / Removal of fauna; general	
242	collection (insects, reptiles, amphibians etc..)	
243	removal of the nest (a falcon)	
244	trapping, poisoning, poaching	X
244	gathering other forms of wildlife	

Code	Category	
250	Assembly / removal of flora; general	
251	theft flower areas	
290	By hunting, fishing or gathering above	
	Mining and extraction of materials	
300	Sand and gravel extraction	X
301	careers	X
302	removal of the seaside	
310	Peat extraction	
311	manual cutting peat	
312	mechanical removal of peat	
320	Exploration and production of oil and natural gas	
330	Mines	
331	daily mining	X
332	underground mining	
340	Salt mines	
390	Mining and extraction of materials listed above	
	Urbanization, industrialization and similar activities	X
400	Urbanized areas, human habitation	X
401	permanent settlements	X
402	staple settlements	X
403	dispersed settlements	X
409	other settlements	X
410	Industrial or commercial areas	X
411	factories	X
412	industrial warehouses	X
419	other industrial or commercial areas	X
420	Evictions	X
421	storing waste	X
422	industrial waste storage	X
423	storage of inert materials	X
424	other releases	X
430	Agricultural structures	X
440	Storing	X
490	Other activities urban, industrial and similar	X
	Transport and communications	X
500	Communications networks	X
501	paths, tracks, routes for cyclists	X
502	roads, highways	X
503	railway line, the TGV	X
504	port areas	
505	airports	
506	airfields, heliports	
507	bridges, viaducts	
508	tunnels	
509	other communications networks	
510	Energy transport	
511	power lines	X
512	oil pipeline	
513	other forms of energy transportation	X
520	Naval transport	X
530	Improving access to site	
590	Other forms of transport and communications	
	Recreation and Tourism (some are included above under other names)	X

Code	Category	
600	Leisure and tourism structures	X
601	golf courses	
602	ski runs	X
603	stadiums	
604	tours, trails	
605	racecourses	
606	amusement parks	
607	Uneven sports	
608	camping for caravans and campers	X
609	other complex leisure / sport	X
610	Interpretation Centre	
620	Outdoor sports and leisure activities	X
621	water sports	
622	walking, horse riding and non-motorized vehicles	
623	motor vehicles	X
624	mountaineering, climbing and caving	
625	sport of hang gliding, hang gliding, paragliding and balloon	
626	skiing, extreme sports (trails off)	X
629	other outdoor sports and leisure	
690	Other outdoor sports and recreational above	
	Pollution and other activities / impacts of human activities	
700	Pollution	X
701	water pollution	X
702	air pollution	X
703	soil pollution	X
709	or other combined forms of pollution	
710	Noise pollution	X
720	Travel by unauthorized vessels; wear	
730	Military maneuvers	
740	Vandalism	
790	Other activities and polluting consequences	
	Status changes damp marine environments induced by human activity	
800	Fitting garbage dumps, impoundment and drying the earth; general	
801	damming depressions	
802	damming land area marine or estuarine marshes	
803	backfilling ditches, dams, ponds, ponds, marshes or pits	
810	Draining	
811	aquatic and shore vegetation management to drain	
820	Removal of sediments (mud ...)	
830	Sewerage	
840	Flooding	
850	Modifying the river system; general	
851	changing sea currents	
852	changing the structures that comprise the continental watercourses	
853	management of the water levels	
860	Filing and storage of silt in suspension	
870	Weirs, dams, artificial beaches; general	
871	defense works in front of the sea or the protection of the coast	
890	Hydraulic other status changes due to human	
	Natural processes (biotic and abiotic)	
900	Erosion	X
910	Alluvial	
920	Drying	
930	Flooding	
940	Natural disasters	

Code	Category	
941	flood	
942	avalanche	
943	diving terrain and landslides	
944	storms, cyclones	
945	volcanoes	
946	earthquakes	
947	tide	
948	fire (natural)	
949	other natural disasters	
950	Biocenotic evolution	
951	accumulation of the organic material	X
952	eutrophication	
953	acidification	
954	a species invasion	X
960	Interspecific faunal relationships	
961	competition (eg: Gull / gurnard)	
962	parasitism	X
963	introduction of a disease	
964	genetic pollution	
965	beasts of prey	
966	antagonism due to the introduction of a new species	
967	domestic animals antagonism	X
969	other forms or mixed forms of interspecific faunal relations	
970	Floristic relationships interspecific	
971	competition	
972	parasitism	
973	introduction of a disease	
974	genetic pollution	
975	lack of pollination agents	
976	damage due to wind	
979	other forms or mixed forms of flora interspecific relations	
990	Other natural processes	

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSCI0129 North West Gorj, is summarized in Table nr.5.XIII, and were considered three levels of impact:

- red = significant level of reconciliation;
- yellow = moderate level of reconciliation;
- green = low level of compaction;

Table nr.5.XIII. Assessment of the current state of conservation of the site ROSCI0129 Nordul Gorjului de Vest

Crt.	Name	Code	%	of total surface (ha)
1	Natural grasslands, steppes	321	4	3478,32
2	Pastures	231	9	7826,22
3	Deciduous	311	53	46087,74
4	Coniferous forests	312	3	2608,74
5	Mixed forests	313	24	20869,92
6	Forest habitats (forests in transition)	324	2	1739,16
7	Other arable land	242,243	3	2608,74
8	Other artificial land (Places, mines ..)	1xx	2	1739,16

The whole site is presented with a good state of preservation, but with extensive areas subjected to a moderate level impaction.

The impact criterion BRUA the elements that led to the designation ROSCI0129 Nordul Gorjului de vest is shown in Table nr.5.XIV. and XV.

Table nr.5.XIV. Note the relevance of the impact BRUA given criterion elements that led to the designation of the site ROSCI0129 Nordul Gorjului de Vest

Nr. Crt.	Species/habitat	Relevance note	Justification
1.	3220 Herbaceous vegetation alongside rivers Mountain	0	Habitat missing from the implementation BRUA
2.	3230 Myricaria germanica woody vegetation along mountain rivers	0	Habitat missing from the implementation BRUA
3.	Salix eleagnos 3240 woody vegetation along the mountain rivers	0	Habitat missing from the implementation BRUA
4.	4060 Boreal and alpine scrub	0	Habitat missing from the implementation BRUA
5.	4070 * Pinus mugo and Rhododendron myrtifolium bushes	0	Habitat missing from the implementation BRUA
6.	6170 Subalpine meadows and alpine calcify	0	Habitat missing from the implementation BRUA
7.	6210* Xerofile semi meadows and bushes on limestone facies with (Festuco Brometalia) (* Important orchid sites)	0	Habitat missing from the implementation BRUA
8.	6430 Tall herb fringe communities with hydrophilic from the plains, mountain and alpine panal	3	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
9.	6520 Mountain meadow	3	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
10.	7220 * Streams encrusted with training mineralized tuff (Cratoneurion)	0	Habitat missing from the implementation BRUA
11.	8120 Limestone and calcareous shale scree from the mountain to the alpine (Thlaspietia rotundifolii)	0	Habitat missing from the implementation BRUA
12.	8210 Rocky limestone slopes with vegetation chasmophytic	0	Habitat missing from the implementation BRUA
13.	9110 Luzulo beech forests Fagetum	4	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
14.	9130 Asperulo- Fagetum beech forests	4	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
15.	9150 Medio-European beech forests of Cephalanthero-limestone substrate Fagion	4	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
16.	9170 Oak and hornbeam forests Galio-type	4	The route will affect BRUA limited (usually

Nr. Crt.	Species/habitat	Relevance note	Justification
	<i>Carpinetum</i>		tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
17.	9180* <i>Tilio-Acerion</i> forests on slopes, screes and ravines	0	Habitat missing from the implementation BRUA
18.	91E0* <i>Alluvial</i> forests of <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>	0	Habitat missing from the implementation BRUA
19.	91L0 <i>Illyrian oak and hornbeam forests (Erythronio-Carpinion)</i>	2	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
20.	91M0 <i>Balkan-Pannonian forests of oak and sky</i>	2	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
21.	91V0 <i>Dacian beech forests (Symphyto-Fagion)</i>	4	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
22.	91Y0 <i>Dacian forests of oak and hornbeam</i>	4	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
23.	9260 <i>Castanea sativa</i> woods	0	Habitat missing from the implementation BRUA
24.	9410 <i>Acidophile forests of spruce (Picea) from the mountain to the alpine (Vaccinio-Piceetea)</i>	4	The route will affect BRUA limited (usually tangential) nemoral formations that preserves elements of transition / degraded reminiscent of the presence of this habitat categories.
25.	1352 <i>Canis lupus</i>	2	Given the high mobility of the species, its potential presence in the sectors BRUA, it must be assuming some management prescriptions
26.	1361 <i>Lynx lynx</i>	1	Limited impact caused by the presence and human activity
27.	1310 <i>Miniopterus scheibersi</i>	1	Limited impact caused by the presence and human activity
28.	1307 <i>Myotis blythii</i>	1	Limited impact caused by the presence and human activity
29.	1305 <i>Rhinolophus euryale</i>	1	Limited impact caused by the presence and human activity
30.	1304 <i>Rhinolophus ferrumequinum</i>	1	Limited impact caused by the presence and

Nr. Crt.	Species/habitat	Relevance note	Justification
			human activity
31.	1303 <i>Rhinolophus hipposideros</i>	1	Limited impact caused by the presence and human activity
32.	1354 <i>Ursus arctos</i>	2	Indirect impact due to noise and stress caused by the presence and human activity.
33.	1355 <i>Lutra lutra</i>	0	Species missing from the project implementation BRUA
34.	1316 <i>Myotis capaccinii</i>	1	Limited impact caused by the presence and human activity
35.	1321 <i>Myotis emarginatus</i>	1	Limited impact caused by the presence and human activity
36.	1324 <i>Myotis myotis</i>	1	Limited impact caused by the presence and human activity
37.	1193 <i>Bombina variegata</i>	4	Impact datorat activităților de construcție
38.	1188 <i>Bombina bombina</i>	4	Impact datorat activităților de construcție
39.	1220 <i>Emys orbicularis</i>	0	Species missing from the project implementation BRUA
40.	1138 <i>Barbus meridionalis</i>	0	Species missing from the project implementation BRUA
41.	1122 <i>Gobio uranoscopus</i>	0	Species missing from the project implementation BRUA
42.	1163 <i>Cottus gobio</i>	0	Species missing from the project implementation BRUA
43.	4030 <i>Colias myrmidone</i>	1	Limited impact caused by the presence and human activity
44.	4036 <i>Leptidea morsei</i>	1	Limited impact caused by the presence and human activity
45.	1078 <i>Callimorpha quadripunctaria</i>		Impact limitat cauzat de prezența și activitatea antropică
46.	1088 <i>Cerambyx cerdo</i>	0	Species missing from the project implementation BRUA
47.	1083 <i>Lucanus cervus</i>	0	Species missing from the project implementation BRUA
48.	1060 <i>Lycaena dispar</i>		Limited impact caused by the presence and human activity
49.	1037 <i>Ophiogomphus cecilia</i>	0	Species missing from the project implementation BRUA
50.	1084 <i>Osmoderma eremita</i>	0	Species missing from the project implementation BRUA
51.	1087 <i>Rosalia alpina</i>	0	Species missing from the project implementation BRUA
52.	4066 <i>Asplenium adulterinum</i>	0	Species missing from the project implementation BRUA
53.	4070 <i>Campanula serrata</i>	2	Limited impact caused by the presence and human activity
54.	4097 <i>Iris aphylla ssp. hungarica</i>	2	Limited impact caused by the presence and human activity

Nr. Crt.	Species/habitat	Relevance note	Justification
55.	2093 <i>Pulsatilla grandis</i>	2	Limited impact caused by the presence and human activity
56.	4116 <i>Tozzia carpathica</i>	2	Limited impact caused by the presence and human activity

Tabelul nr.5.XV. Impact level estimated for criteria elements in ROSCI0129 Nordul Gorjului de Vest

Nr. Crt.	Species/habitat	Relevance note	Scale of impact				
			1	2	3	4	5
1.	3220 Vegetație herbacee de pe malurile râurilor montane	0					
2.	3230 Vegetație lemnoasă cu <i>Myricaria germanica</i> de-a lungul râurilor montane	0					
3.	3240 Vegetație lemnoasă cu <i>Salix eleagnos</i> de-a lungul râurilor montane	0					
4.	4060 Tufărișuri alpine și boreale	0					
5.	4070 * Tufărișuri cu <i>Pinus mugo</i> și <i>Rhododendron myrtifolium</i>	0					
6.	6170 Pajiști calcifile alpine și subalpine	0					
7.	6210* Pajiști xerofile seminaturale și facies cu tufișuri pe substrate calcaroase (<i>Festuco-Brometalia</i>) (* situri importante pentru orhidee)	0					
8.	6430 Comunități de lizierăcu ierburi înalte higrofile de la nivelul câmpiilor, pânăla cel montan și alpin	3					
9.	6520 Fânețe montane	3					
10.	7220* Izvoare mineralizate încrustante cu formare de tuf calcaros (<i>Cratoneurion</i>)	0					
11.	8120 Grohotișuri calcaroaseși deșisturi calcaroase din etajul montan pânăîn celalpin (<i>Thlaspietia rotundifolia</i>)	0					
12.	8210 Versanți stâncoși calcaroși cu vegetație casmofitică	0					
13.	9110 Păduri de fag de tipLuzulo-Fagetum	4					
14.	9130 Păduri de fag de tipAsperulo-Fagetum	4					
15.	9150 Păduri medio-europene de fag dinCephalanthero-Fagionpe substratecalcaroase	4					
16.	9170 Păduri de stejar cu carpen de tipGalio-Carpinetum	4					
17.	9180* Păduri deTilio-Acerionpe versanți, grohotișuriși ravene	0					
18.	91E0* Păduri aluviale deAlnus glutinosașiFraxinus excelsior	0					
19.	91L0 Păduri ilirice de stejar cu carpen (<i>Erythronio-Carpinion</i>)	2					
20.	91M0 Păduri balcano-panonice de cerși gorun	2					
21.	91V0 Păduri dacice de fag (<i>Symphyto-Fagion</i>)	4					
22.	91Y0 Păduri dacice de stejarși carpen	4					

Nr. Crt.	Species/habitat	Relevance note	Scale of impact				
			1	2	3	4	5
23.	9260 Păduri de Castanea sativa	0					
24.	9410 Păduri acidofile de molid (Picea) din etajul montan până în cel alpin (Vaccinio-Piceetea)	4					
25.	1352 Canis lupus	2					
26.	1361 Lynx lynx	1					
27.	1310 Miniopterus scheibersi	1					
28.	1307 Myotis blythii	1					
29.	1305 Rhinolophus euryale	1					
30.	1304 Rhinolophus ferrumequinum	1					
31.	1303 Rhinolophus hipposideros	1					
32.	1354 Ursus arctos	2					
33.	1355 Lutra lutra	0					
34.	1316 Myotis capaccinii	1					
35.	1321 Myotis emarginatus	1					
36.	1324 Myotis myotis	1					
37.	1193 Bombina variegata	4					
38.	1188 Bombina bombina	4					
39.	1220 Emys orbicularis	0					
40.	1138 Barbus meridionalis	0					
41.	1122 Gobio uranoscopus	0					
42.	1163 Cottus gobio	0					
43.	4030 Colias myrmidone	1					
44.	4036 Leptidea morsei	1					
45.	1078 Callimorpha quadripunctaria						
46.	1088 Cerambyx cerdo	0					
47.	1083 Lucanus cervus	0					
48.	1060 Lycaena dispar						
49.	1037 Ophiogomphus cecilia	0					
50.	1084 Osmoderma eremita	0					
51.	1087 Rosalia alpina	0					
52.	4066 Asplenium adulterinum	0					
53.	4070 Campanula serrata	2					
54.	4097 Iris aphylla ssp. hungarica	2					
55.	2093 Pulsatilla grandis	2					
56.	4116 Tozzia carpathica	2					

Calculation of percentage of 53.57% relevă value that răsfrânge enrolling on a potential 30 elements (according to Form Standard site designation) of the 56 that corresponds to an overall environmental impact.

A distribution level impact on species prezentată criterion is summarized in Table nr.5.XVI.

Table 5-XVI distribution level has impact on species criterion

Level of impact	Enrolling species / habitats criterion	Percentage expression
0	26	46,4
1	11	19,6
2	8	14,2

3	2	3,5
4	9	16
5	0	0

As shown in Table nr.5.XVI and observă a relevanță limitată, the overall project criterion on the elements that led to the designation ROSCI0129.

For many of the elements potentially affected criterion (carpathica Tozzi, Lycaena disappear, etc.) is NECESSARY confirmation of probable significant population in the project implementation (working strip).

5.5.2.4. ROSCI0138 Padurea Bolintin

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied .

In this regard, following categories of impacts associated with human activities has been prepared nr.5.XVII table, in which identified 67 impact categories currently in the pre-project site level.

Table nr.5.XVII categories of impacts associated with human activities

Cod	Category	
100	Agriculture, forestry	
101	Cultivation	
102	modification of cultivation techniques	X
110	trimming / cutting	X
120	use of pesticides	X
130	Fertilization	X
140	Irrigation	X
141	Pasture	X
150	abandonment of pastoral systems	X
151	Restructuring possession of land	X
160	removing hedges and kangaroos	X
161	Overall management of forestry	X
162	forestation	
163	artificial planting	X
164	forestation	
165	deforestation	X
166	removing undergrowth	X
167	removing dead trees and sick	X
170	operation without reforestation	X
171	Livestock	X
180	Feedings	X
190	Burning	X
190	Agricultural and forestry activities mentioned above	
200	Fishing, hunting and collecting bodies	
210	Fishery and cunicultura	
211	Professional fishing	X
212	fishing fixed place	X
213	fishing trawler	
220	purse	X
221	Recreational fisheries	X
230	putting bait	
240	Hunting	X
241	Assembly / Removal of fauna; general	
242	collection (insects, reptiles, amphibians etc..)	X
243	removal of the nest (a falcon)	
243	trapping, poisoning, poaching	X

Cod	Category	
244	gathering other forms of wildlife	
250	Assembly / removal of flora; general	
251	theft flower areas	
290	By hunting, fishing or gathering above	
	Mining and extraction of materials	
300	Sand and gravel extraction	X
301	careers	
302	removal of the seaside	X
310	Peat extraction	
311	manual cutting peat	
312	mechanical removal of peat	
320		
330	Exploration and production of oil and natural gas	
331	Mines	
332	daily mining	
340	underground mining	
390	Salt mines	
	Mining and extraction of materials listed above	
400	Urbanization, industrialization and similar activities	
401	Urbanized areas, human habitation	X
402	permanent settlements	X
403	staple settlements	X
409	dispersed settlements	X
410	other settlements	
411	Industrial or commercial areas	
412	factories	
419	industrial warehouses	
420	other industrial or commercial areas	X
421	Evictions	X
422	storing waste	X
423	industrial waste storage	X
424	storage of inert materials	
430	other releases	X
440	Agricultural structures	
490	Storing	
	Other activities urban, industrial and similar	
500	Transport and communications	X
501	Communications networks	
502	paths, tracks, routes for cyclists	X
503	roads, highways	
504	railway line, the TGV	
505	port areas	
506	airports	
507	airfields, heliports	
508	bridges, viaducts	
509	tunnels	
510	other communications networks	X
511	Energy transport	X
512	power lines	
513	oil pipeline	
520	other forms of energy transportation	X
530	Naval transport	
590	Improving access to site	
	Other forms of transport and communications	

Cod	Category	
600	Recreation and Tourism (some are included above under other names)	X
601	Leisure and tourism structures	
602	golf courses	
603	ski runs	
604	stadiums	
605	tours, trails	
606	racecourses	
607	amusement parks	
608	Uneven sports	
609	camping for caravans and campers	
610	other complex leisure / sport	
620	Interpretation Centre	
621	Outdoor sports and leisure activities	X
622	water sports	
623	walking, horse riding and non-motorized vehicles	X
624	motor vehicles	
625	mountaineering, climbing and caving	
626	sport of hang gliding, hang gliding, paragliding and balloon	
629	skiing, extreme sports (trails off)	
690	other outdoor sports and leisure	
	Other outdoor sports and recreational above	
700	Pollution and other activities / impacts of human activities	
701	Pollution	X
702	water pollution	X
703	air pollution	X
709	soil pollution	X
710	or other combined forms of pollution	
720	Noise pollution	
730	Travel by unauthorized vessels; wear	
740	Military maneuvers	X
790	Vandalism	
	Other activities and polluting consequences	
800	Status changes damp marine environments induced by human activity	
801	Fitting garbage dumps, impoundment and drying the earth; general	X
802	damming depressions	
803	damming land area marine or estuarine marshes	X
810	backfilling ditches, dams, ponds, ponds, marshes or pits	
811	Draining	
820	aquatic and shore vegetation management to drain	X
830	Removal of sediments (mud ...)	X
840	Sewerage	
850	Flooding	
851	Modifying the river system; general	
852	changing sea currents	X
853	changing the structures that comprise the continental watercourses	X
860	management of the water levels	
870	Filing and storage of silt in suspension	X
871	Weirs, dams, artificial beaches; general	
890	defense works in front of the sea or the protection of the coast	X
	Hydraulic other status changes due to human	
900	Natural processes (biotic and abiotic)	X
910	Erosion	X
920	Alluvial	X
930	Drying	X
940	Flooding	

Cod	Category	
941	Natural disasters	X
942	flood	
943	avalanche	
944	diving terrain and landslides	
945	storms, cyclones	
946	volcanoes	
947	earthquakes	
948	tide	
949	fire (natural)	
950	other natural disasters	
951	Biocenotic evolution	X
952	accumulation of the organic material	X
953	eutrophication	
954	acidification	X
960	a species invasion	
961	Interspecific faunal relationships	X
962	competition (eg: Gull / gurnard)	X
963	parasitism	
964	introduction of a disease	
965	genetic pollution	
966	beasts of prey	
967	antagonism due to the introduction of a new species	
969	domestic animals antagonism	
970	other forms or mixed forms of interspecific faunal relations	
971	Floristic relationships interspecific	
972	competition	
973	parasitism	
974	introduction of a disease	
975	genetic pollution	
976	lack of pollination agents	
979	damage due to wind	
990	other forms or mixed forms of flora interspecific relations	
	Other natural processes	

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSCI0138 Pădurea Bolintin, is summarized in Table nr.5.XVIII, and were considered three levels of impact:

- red = significant level of impact;
- yellow = moderate level of impact;
- green = low level of impact;

Table Nr.5.XVIII Appreciation of the current state of conservation for ROSCI0138 Pădurea Bolintin

Crt.	Name	Code	%	Of total surface (ha)
1.	Rivers, lakes	511,512	2	0.03
2.	Crops, arable land	211-213	4	0.06
3.	Deciduous	311	94	99.91

The whole site is presented with a good state of preservation, but with extensive areas subjected to a moderate level impact.

The impact criterion BRUA the elements that led to the designation of ROSCI0138 Pădurea Bolintin is shown in Table nr.5.XIX. and 5.xx.

Table nr.5.XIX. Note the relevance of the impact BRUA given criterion elements that led to the designation of ROSCI0138 Pădurea Bolintin

Nr. Crt.	Species/habitat	Relevance note	Justification
1.	92A0 Groves with Populus alba and Salix alba (2.28%)	0	The habitat is missing from the site
2.	91M0 Balkan-Pannonian forests of sky and oak (17.7%)	4	The route will affect BRUA limited nemoral formations that are listed in this category habitat. Ecological restoration measures are bprevăzute.
3.	91Y0 Dacian forests of oak and hornbeam (79.34%)	4	The route will affect BRUA limited nemoral formations that are listed in this category habitat. Ecological restoration measures are bprevăzute.
4.	1355 Lutra lutra	0	The species is not affected by the implementation BRUA
5.	1166 Triturus cristatus	0	The species is not affected by the implementation BRUA
6.	1188 Bombina bombina	3	Impact due to construction
7.	1220 Emys orbicularis	0	The species is not affected by the implementation BRUA

Table nr.5.XX. Note the relevance of the impact BRUA given criterion elements that led to the designation of ROSCI0138 Pădurea Bolintin

Nr. Crt.	Species/habitat	Relevance note	Scale of impact				
			1	2	3	4	5
1.	92A0 Zavoaiie cu Salix alba si Populus alba (2,28%)	0					
2.	91M0 Paduri balcano-panonice de cer si gorun (17,7%)	4					
3.	91Y0 Paduri dacice de stejar si carpen (79,34%)	4					
4.	1355 Lutra lutra	0					
5.	1166 Triturus cristatus	0					
6.	1188 Bombina bombina	3					
7.	1220 Emys orbicularis	0					

Percentage calculation reveals a value of 42.85% which reflects on a number of potential items 3 (according to Form Standard site designation) of the 7 corresponding to a level of overall environmental impact (see table 5. XX).

A distribution level of impact on the species criterion is summarized in Table nr.5.XXI

Table. 5.xx level distribution of elements influence it has on the criterion of the ROSCI0138 Pădurea Bolintin

Level of impact	Number of species / habitats criterion	Percentage expression
0	0	58.15
1	0	0

2	0	0
3	1	14.28
4	2	28.57
5	0	0

5.5.2.5. ROSCI0236 Strei-Hateg

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied .

In this regard, following categories of impacts associated with human activities has been prepared table nr.5.XXII state in which identified 70 impact categories currently in the pre-project site level.

Table. 5.XXII. Impact categories identified in the ROSCI0236 Strei-Hateg

Code	Category	
100	Agriculture, forestry	
101	Cultivation	
102	modification of cultivation techniques	X
110	trimming / cutting	X
120	use of pesticides	X
130	Fertilization	X
140	Irrigation	X
141	Pasture	X
150	abandonment of pastoral systems	X
151	Restructuring possession of land	X
160	removing hedges and kangaroos	X
161	Overall management of forestry	X
162	forestation	X
163	artificial planting	X
164	forestation	
165	deforestation	X
166	removing undergrowth	X
167	removing dead trees and sick	X
170	operation without reforestation	X
171	Livestock	X
180	Feedings	X
190	Burning	X
200	Agricultural and forestry activities mentioned above	
210	Fishing, hunting and collecting bodies	
211	Fishery and cunicultura	
212	Professional fishing	
213	fishing fixed place	
220	fishing trawler	
221	purse	
230	Recreational fisheries	X
240	putting bait	X
241	Hunting	X
242	Assembly / Removal of fauna; general	
243	collection (insects, reptiles, amphibians etc..)	
244	removal of the nest (a falcon)	
250	trapping, poisoning, poaching	X
251	gathering other forms of wildlife	
290	Assembly / removal of flora; general	
	theft flower areas	
	By hunting, fishing or gathering above	

Code	Category	
300	Mining and extraction of materials	
301	Sand and gravel extraction	X
302	careers	X
310	removal of the seaside	
311	Peat extraction	
312	manual cutting peat	
320	mechanical removal of peat	
330	Exploration and production of oil and natural gas	
331	Mines	
332	daily mining	X
340	underground mining	
390	Salt mines	
	Mining and extraction of materials listed above	
400	Urbanization, industrialization and similar activities	X
401	Urbanized areas, human habitation	X
402	permanent settlements	X
403	staple settlements	X
409	dispersed settlements	X
410	other settlements	X
411	Industrial or commercial areas	X
412	factories	X
419	industrial warehouses	X
420	other industrial or commercial areas	X
421	Evictions	X
422	storing waste	X
423	industrial waste storage	X
424	storage of inert materials	X
430	other releases	X
440	Agricultural structures	X
490	Storing	X
	Other activities urban, industrial and similar	X
500	Transport and communications	X
501	Communications networks	X
502	paths, tracks, routes for cyclists	X
503	roads, highways	X
504	railway line, the TGV	X
505	port areas	
506	airports	
507	airfields, heliports	
508	bridges, viaducts	
509	tunnels	
510	other communications networks	
511	Energy transport	
512	power lines	X
513	oil pipeline	
520	other forms of energy transportation	X
530	Naval transport	X
590	Improving access to site	
	Other forms of transport and communications	
600	Recreation and Tourism (some are included above under other names)	X
601	Leisure and tourism structures	X
602	golf courses	
	ski runs	X

Code	Category	
603	stadiums	
604	tours, trails	
605	racecourses	
606	amusement parks	
607	Uneven sports	
608	camping for caravans and campers	X
609	other complex leisure / sport	X
610	Interpretation Centre	
620	Outdoor sports and leisure activities	X
621	water sports	
622	walking, horse riding and non-motorized vehicles	
623	motor vehicles	X
624	mountaineering, climbing and caving	
625	sport of hang gliding, hang gliding, paragliding and balloon	
626	skiing, extreme sports (trails off)	X
629	other outdoor sports and leisure	
690	Other outdoor sports and recreational above	
	Pollution and other activities / impacts of human activities	
700	Pollution	X
701	water pollution	X
702	air pollution	X
703	soil pollution	X
709	or other combined forms of pollution	
710	Noise pollution	X
720	Travel by unauthorized vessels; wear	
730	Military maneuvers	
740	Vandalism	
790	Other activities and polluting consequences	
	Status changes damp marine environments induced by human activity	
800	Fitting garbage dumps, impoundment and drying the earth; general	
801	damming depressions	
802	damming land area marine or estuarine marshes	
803	backfilling ditches, dams, ponds, ponds, marshes or pits	
810	Draining	
811	aquatic and shore vegetation management to drain	
820	Removal of sediments (mud ...)	
830	Sewerage	
840	Flooding	
850	Modifying the river system; general	
851	changing sea currents	
852	changing the structures that comprise the continental watercourses	
853	management of the water levels	
860	Filing and storage of silt in suspension	
870	Weirs, dams, artificial beaches; general	
871	defense works in front of the sea or the protection of the coast	
890	Hydraulic other status changes due to human	
	Natural processes (biotic and abiotic)	
900	Erosion	X
910	Alluvial	
920	Drying	
930	Flooding	
940	Natural disasters	
941	flood	
942	avalanche	
943	diving terrain and landslides	

Code	Category	
944	storms, cyclones	
945	volcanoes	
946	earthquakes	
947	tide	
948	fire (natural)	
949	other natural disasters	
950	Biocenotic evolution	
951	accumulation of the organic material	X
952	eutrophication	X
953	acidification	
954	a species invasion	X
960	Interspecific faunal relationships	
961	competition (eg: Gull / gurnard)	
962	parasitism	X
963	introduction of a disease	
964	genetic pollution	
965	beasts of prey	
966	antagonism due to the introduction of a new species	
967	domestic animals antagonism	X
969	other forms or mixed forms of interspecific faunal relations	
970	Floristic relationships interspecific	
971	competition	
972	parasitism	
973	introduction of a disease	
974	genetic pollution	
975	lack of pollination agents	
976	damage due to wind	
979	other forms or mixed forms of flora interspecific relations	
990	Other natural processes	

Following the studies undertaken during the field study documenting this, you could outline a general conclusion on the impact of human activities within the current perimeter included in Natura 2000 sites.

The high degree of accessibility, presence of settlements (also located at the site limits), the objectives of socio-economic interest, but also of increasing interest in tourism, made the whole entire area to experience a significant impact. However, in some ways, with limited accessibility, the natural benefit from relatively good state of preservation. The impact associated with major exploitation of natural resources have led to a significant impact on large perimeters. In whole site thus appears to moderately impacted accentuated with kernels that have retained some fully intact, alternating with areas impacted major.

It is obvious

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSCI0236 stream Hațeg, is summarized in Table. 5.XXIII., And were considered three levels of impact:

- red = significant level of impact;
- yellow = moderate level of impact;
- green = low level of impact;

Table nr.5.XXIII. Assessment of the current state of conservation of the site ROSCI0236 Strei-Hateg

Crt.	Name	Code	%	ha
1	Bushes, shrubs	322	3	749,04
2	Natural grasslands, steppes	321	4	998,72
3	Pastures	231	11	2746,48
4	Other arable land	242, 243	6	1498,08
5	Deciduous	311	48	11984,64

6	Coniferous forests	312	14	3495,52
7	Mixed forests	313	6	1498,08
8	Forest habitats in transition	324	8	1997,44

The whole site is presented with a good state of preservation, but with extensive areas subjected to a moderate level impact.

The impact criterion BRUA the elements that led to the designation ROSCI0236 Strei-Hățeg is shown in Table nr.5.XXIV.

Table nr.5.XXIV. Relevance notes of the BRUA project impacts on criteria elements that designated ROSCI0236 Strei-Hățeg

Nr. Crt.	Species/habitat	Relevance note	Justification
1.	6240* Pajisti stepice subpanonice	0	<i>The habitat is not present in the area of interest.</i>
2.	8310 Pesteri in care accesul publicului este interzis	0	<i>The habitat is not present in the area of interest.</i>
3.	9110 Păduri de fag de tip Luzulo-Fagetum	0	<i>The habitat is not present in the area of interest.</i>
4.	9170 Păduri de stejar cu carpen de tip Galio-Carpinetum	0	<i>The habitat is not present in the area of interest.</i>
5.	91Y0 Paduri dacice de stejar si carpen	0	According ecological conditions, the species is not present in the area of interest
6.	1352 <i>Canis lupus</i>	0	Species missing from the project implementation BRUA
7.	1307 <i>Myotis blythii</i>	0	According ecological conditions, the species is not present in the area of interest
8.	1304 <i>Rhinolophus ferrumequinum</i>	1	Limited impact caused by the presence and human activity
9.	1354 <i>Ursus arctos</i>	0	Species missing from the project implementation BRUA
10.	1355 <i>Lutra lutra</i>	0	Species missing from the project implementation BRUA
11.	1316 <i>Myotis capaccinii</i>	1	Limited impact caused by the presence and human activity
12.	1324 <i>Myotis myotis</i>	1	Limited impact caused by the presence and human activity
13.	1193 <i>Bombina variegata</i>	4	Impact due to construction
14.	1166 <i>Triturus cristatus</i>	1	Limited impact caused by the presence and human activity
15.	4008 <i>Triturus vulgaris ampelensis</i>	1	Limited impact caused by the presence and human activity
16.	1138 <i>Barbus meridionalis</i>	1	Limited impact caused by the presence and human activity
17.	1146 <i>Sabanejewia aurata</i>	1	Limited impact caused by the presence and human activity
18.	1146 <i>Cottus gobio</i>	1	Limited impact caused by the presence and human activity

Nr. Crt.	Species/habitat	Relevance note	Justification
19.	4123 <i>Eudontomyzon danfordi</i>	0	Species missing from the project implementation BRUA
20.	1084 <i>Osmoderma eremita</i>	0	Species missing from the project implementation BRUA
21.	4035 <i>Gortyna borellii lunata</i>	1	Limited impact caused by the presence and human activity
22.	1093 <i>Austropotamobius torrentium</i>	0	Species missing from the project implementation BRUA
23.	4048 <i>Isophya costata</i>	1	Limited impact caused by the presence and human activity
24.	4050 <i>Isophya stysi</i>	1	Limited impact caused by the presence and human activity
25.	1065 <i>Euphydryas aurinia</i>	1	Limited impact caused by the presence and human activity
26.	1052 <i>Euphydryas maturna</i>	0	Species missing from the project implementation BRUA
27.	1059 <i>Maculinea teleius</i>	0	Species missing from the project implementation BRUA
28.	4054 <i>Pholidoptera transsylvanica</i>	0	Species missing from the project implementation BRUA
29.	1060 <i>Lycaena dispar</i>	1	Limited impact caused by the presence and human activity

Tabelul nr.5.XXV. Relevance notes of the BRUA project impacts on criteria elements that designated ROSCI0236
Streii-Hateg

Nr. Crt.	Species/habitat	Relevance note	Scale of impact				
			1	2	3	4	5
1.	6240* Steppe grasslands subpanonice	0					
2.	8310 Caves where public access is prohibited	0					
3.	9110 Luzulo-Fagetum beech forests	0					
4.	9170 Oak and hornbeam forests Galio-type Carpinetum	0					
5.	91Y0 Dacian forests of oak and hornbeam	0					
6.	1352 <i>Canis lupus</i>	0					
7.	1307 <i>Myotis blythii</i>	0					
8.	1304 <i>Rhinolophus ferrumequinum</i>	1					
9.	1354 <i>Ursus arctos</i>	0					
10.	1355 <i>Lutra lutra</i>	0					
11.	1316 <i>Myotis capaccinii</i>	1					
12.	1324 <i>Myotis myotis</i>	1					
13.	1193 <i>Bombina variegata</i>	4					
14.	1166 <i>Triturus cristatus</i>	1					
15.	4008 <i>Triturus vulgaris ampelensis</i>	1					

Nr. Crt.	Species/habitat	Relevance note	Scale of impact				
			1	2	3	4	5
16.	1138 <i>Barbus meridionalis</i>	1					
17.	1146 <i>Sabanejewia aurata</i>	1					
18.	1146 <i>Cottus gobio</i>	1					
19.	4123 <i>Eudontomyzon danfordi</i>	0					
20.	1084 <i>Osmoderma eremita</i>	0					
21.	4035 <i>Gortyna borelii lunata</i>	1					
22.	1093 <i>Austropotamobius torrentium</i>	0					
23.	4048 <i>Isophya costata</i>	1					
24.	4050 <i>Isophya stysi</i>	1					
25.	1065 <i>Euphydryas aurinia</i>	1					
26.	1052 <i>Euphydryas maturna</i>	0					
27.	1059 <i>Maculinea teleius</i>	0					
28.	4054 <i>Pholidoptera transsylvanica</i>	0					
29.	1060 <i>Lycaena dispar</i>	1					

Percentage calculation reveals a value of 48.27% which reflects on a number of potential elements 14 (according to Form Standard site designation) of the 29 that corresponds to an overall environmental impact (see table 5. XXV). A distribution level of impact on the species criterion is summarized in Table nr.5.XXVI.

Table nr.5.XXVI Impact level repartition on criteria elements that designated ROSCI0236 Strei-Hateg

Level of impact	Number of species / habitats criterion	Percentage expression
0	15	51,7
1	13	44,8
2	0	0
3	0	0
4	1	3,4
5	0	0

As shown in Table nr.5.XXVI there is a limited relevance, overall project criterion on the elements that led to the designation ROSCI0236.

For many of the elements potentially affected criterion (*Gortyna borelii*, *Lycaena dispar*, etc.) it is necessary to confirm the presence of significant populations likely in the area of project implementation (working strip).

5.5.2.6. ROSCI0292 Coridorul Rusca Montana - Tarcu - Retezat

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied .

In this regard, following categories of impacts associated with human activities has been compiled state table shown below, in which identified 49 impact categories currently under pre-project at the site. For the 49 types of impact was carried out a brief explanation (see Table no. XXVII).

Table. 5.XXVII. Impact categories identified in ROSCI0292 Coridorul Rusca Montana - Tarcu - Retezat

Code	Category
	Agriculture, forestry

Code	Category	
100	Cultivation	
101	modification of cultivation techniques	X
102	trimming / cutting	X
110	use of pesticides	X
120	Fertilization	X
130	Irrigation	X
140	Pasture	X
141	abandonment of pastoral systems	X
150	Restructuring possession of land	X
151	removing hedges and kangaroos	X
160	Overall management of forestry	X
161	forestation	
162	artificial planting	X
163	forestation	
164	deforestation	X
165	removing undergrowth	X
166	removing dead trees and sick	X
167	operation without reforestation	X
170	Livestock	X
171	Feedings	X
180	Burning	X
190	Agricultural and forestry activities mentioned above	
	Fishing, hunting and collecting bodies	
200	Fishery and cunicultura	
210	Professional fishing	X
211	fishing fixed place	X
212	fishing trawler	
213	purse	X
220	Recreational fisheries	X
221	putting bait	
230	Hunting	X
240	Assembly / Removal of fauna; general	
241	collection (insects, reptiles, amphibians etc..)	X
242	removal of the nest (a falcon)	
243	trapping, poisoning, poaching	X
244	gathering other forms of wildlife	
250	Assembly / removal of flora; general	
251	theft flower areas	
290	By hunting, fishing or gathering above	
	Mining and extraction of materials	
300	Sand and gravel extraction	X
301	careers	
302	removal of the seaside	X
310	Peat extraction	
311	manual cutting peat	
312	mechanical removal of peat	
320	Exploration and production of oil and natural gas	
330	Mines	
331	daily mining	
332	underground mining	
340	Salt mines	
390	Mining and extraction of materials listed above	
	Urbanization, industrialization and similar activities	
400	Urbanized areas, human habitation	

Code	Category	
401	permanent settlements	X
402	staple settlements	
403	dispersed settlements	
409	other settlements	X
410	Industrial or commercial areas	
411	factories	
412	industrial warehouses	
419	other industrial or commercial areas	
420	Evictions	
421	storing waste	X
422	industrial waste storage	
423	storage of inert materials	X
424	other releases	
430	Agricultural structures	X
440	Storing	
490	Other activities urban, industrial and similar	
	Transport and communications	
500	Communications networks	
501	paths, tracks, routes for cyclists	
502	roads, highways	X
503	railway line, the TGV	
504	port areas	
505	airports	
506	airfields, heliports	
507	bridges, viaducts	
508	tunnels	
509	other communications networks	
510	Energy transport	
511	power lines	X
512	oil pipeline	
513	other forms of energy transportation	
520	Naval transport	X
530	Improving access to site	
590	Other forms of transport and communications	
	Recreation and Tourism (some are included above under other names)	
600	Leisure and tourism structures	
601	golf courses	
602	ski runs	
603	stadiums	
604	tours, trails	
605	racecourses	
606	amusement parks	
607	Uneven sports	
608	camping for caravans and campers	
609	other complex leisure / sport	
610	Interpretation Centre	
620	Outdoor sports and leisure activities	
621	water sports	
622	walking, horse riding and non-motorized vehicles	
623	motor vehicles	
624	mountaineering, climbing and caving	
625	sport of hang gliding, hang gliding, paragliding and balloon	
626	skiing, extreme sports (trails off)	
629	other outdoor sports and leisure	
690	Other outdoor sports and recreational above	

Code	Category	
	Pollution and other activities / impacts of human activities	
700	Pollution	
701	water pollution	X
702	air pollution	X
703	soil pollution	X
709	or other combined forms of pollution	
710	Noise pollution	
720	Travel by unauthorized vessels; wear	
730	Military maneuvers	
740	Vandalism	
790	Other activities and polluting consequences	
	Status changes damp marine environments induced by human activity	
800	Fitting garbage dumps, impoundment and drying the earth; general	
801	damming depressions	
802	damming land area marine or estuarine marshes	
803	backfilling ditches, dams, ponds, ponds, marshes or pits	
810	Draining	
811	aquatic and shore vegetation management to drain	
820	Removal of sediments (mud ...)	X
830	Sewerage	
840	Flooding	
850	Modifying the river system; general	
851	changing sea currents	
852	changing the structures that comprise the continental watercourses	
853	management of the water levels	
860	Filing and storage of silt in suspension	
870	Weirs, dams, artificial beaches; general	X
871	defense works in front of the sea or the protection of the coast	
890	Hydraulic other status changes due to human	X
	Natural processes (biotic and abiotic)	
900	Erosion	X
910	Alluvial	X
920	Drying	X
930	Flooding	X
940	Natural disasters	
941	flood	X
942	avalanche	
943	diving terrain and landslides	
944	storms, cyclones	
945	volcanoes	
946	earthquakes	
947	tide	
948	fire (natural)	
949	other natural disasters	
950	Biocenotic evolution	
951	accumulation of the organic material	X
952	eutrophication	
953	acidification	
954	a species invasion	X
960	Interspecific faunal relationships	
961	competition (eg: Gull / gurnard)	
962	parasitism	X
963	introduction of a disease	
964	genetic pollution	
965	beasts of prey	
966	antagonism due to the introduction of a new species	

Code	Category	
967	domestic animals antagonism	
969	other forms or mixed forms of interspecific faunal relations	
970	Floristic relationships interspecific	
971	competition	
972	parasitism	
973	introduction of a disease	
974	genetic pollution	
975	lack of pollination agents	
976	damage due to wind	
979	other forms or mixed forms of flora interspecific relations	
990	Other natural processes	

The impact of the categories that contribute to the vulnerability of the site, some of which were identified in the study are explained briefly perimeter. In addition they have been identified other categories of impact with limited effect (local), but present in the target perimeter.

Some of impact categories have been found to be present in the studied perimeter (or negligible effects), but some have been identified and explained constituent sub-categories.

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSCI0292 Coridorul Rusca Montana - Țarcu - Retezat, is summarized in Table. XXVIII, where they were considered three levels of impactation:

- red = significant level of impact;
- yellow = moderate level of impact;
- green = low level of impact;

Table. 5.XXVIII.Current state apreciations of conservation in ROSCI0292 Coridorul Rusca Montana - Țarcu - Retezat

Crt.	Name	Code	%	Of total surface (ha)
1.	Bushes and thickets	322	5	1222,15
2.	Natural grasslands, steppes	321	12	2933,16
3.	Other arable land	242,243	3	733,29
4.	Deciduous	311	50	12221,5
5.	Coniferous forests	312	20	4888,6
6.	Mixed forests	313	4	977,72
7.	Forest habitats (forests in transition)	324	6	1446,58

According to Standard Form of designating Natura 2000 sites for ROSCI0292 Rusca Montana-Țarcu Retezat criterion elements that led to the designation of the site can be found listed in sections 3.1, 3.2 respectively. This situation is represented in the table. XXIX

Table. 5.XXIX. Relevance notes of the BRUA project impacts on criteria elements that designated ROSCI0292 Coridorul Rusca Montana - Țarcu - Retezat

Nr. Crt.	Species/habitat	Relevance note	Justification
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Nr. Crt.	Species/habitat	Relevance note	Justification
57.	4070* <i>Pinus mugo</i> and <i>Rhododendron myrtifolium</i> bushes	0	The habitat is missing from the project implementation BRUA
58.	6520 Mountain meadows	0	The habitat is missing from the project implementation BRUA
59.	9110 <i>Luzulo-Fagetum</i> beech forests	2	The habitat will be impacted in a small measure, due to damaged some states (potential) of its transition state / degraded (younger age).
60.	9170 Oak and hornbeam forests <i>Galio-type Carpinetum</i>	0	The habitat is missing from the project implementation BRUA
61.	91V0 Dacian beech forests (<i>Symphyto-Fagion</i>)	2	The habitat will be impacted in a small measure, due to damaged some states (potential) of its transition state / degraded (younger age).
62.	9410 <i>Picea Abies acidophilous</i> forests in mountainous regions (<i>Vaccinio-Piceetea</i>)	0	The habitat is missing from the project implementation BRUA
63.	1352 <i>Canis lupus</i>	1	It admits a potential impact presumptive indirect actions.
64.	1361 <i>Lynx lynx</i>	1	It admits a potential impact presumptive indirect actions.
65.	1354 <i>Ursus arctos</i>	1	It admits a potential impact presumptive indirect actions.
66.	1355 <i>Lutra lutra</i>	0	Species missing from the project implementation
67.	1193 <i>Bombina variegata</i>	4	Impact due to construction

Cumulative level of impact on the species / habitats within the site criterion expressed by a method adapted from the model proposed deRoianski illustrative, using notes relevance is interpreted via a chart.

The ideal state is graphically represented by a geometrical figure having 100% expressed as a percentage defining the 11 X 5 = 55 quadrant.

Linking percent synthetic, can be expressed as the percent:

- **0%** - the project does not generate any kind of impact on all species / habitats criterion;
- **0-20%** - project generates little impact on the overall species / habitats criterion;
- **20-40%** - project generates a limited impact on the overall species / habitats criterion;
- **40-60%** - project generates a large impact on the overall significance of the species / habitats criterion;
- **60-80%** - project generates particularly high significance impact on all species / habitats criterion measures imposing complex compensation / ecological restoration;
- **80-100%** - project generates a broad impact on all species / habitats criterion leads to irreversible impairment of a natural heritage site.

Notes relevance will structure a diagramă în where each Quadratus will receive a percentage that will report the total number of quadrants.

Expression will reveal the percentage of the cumulative impact on biodiversity.

The total number of quadrants that reveals the presence of impact is null, not identified a potential impact on species criterion which led to the designation of the site. This situation is represented in the table. 5.XXX.

Table. 5.XXX. Relevance notes of the BRUA project impacts on criteria elements that designated ROSCI0292
Coridorul Rusca Montana - Tarcu - Retezat

Nr. Crt.	Species/habitat	Relevance note	Scale of impact				
			1	2	3	4	5
57.	4070* <i>Pinus mugo</i> and <i>Rhododendron myrtifolium</i> bushes	0					
58.	6520 Mountain meadows	0					
59.	9110 <i>Luzulo-Fagetum</i> beech forests	2					
60.	9170 Oak and hornbeam forests <i>Galio-type</i> <i>Carpinetum</i>	0					
61.	91V0 Dacian beech forests (<i>Symphyto-Fagion</i>)	2					
62.	9410 <i>Picea Abies acidophilous</i> forests in mountainous regions (<i>Vaccinio-Piceetea</i>)	0					
63.	1352 <i>Canis lupus</i>	1					
64.	1361 <i>Lynx lynx</i>	1					
65.	1354 <i>Ursus arctos</i>	1					
66.	1355 <i>Lutra lutra</i>	0					
67.	1193 <i>Bombina variegata</i>	4					

Percentage calculation reveals a value of 54.54% which reflects on a number of potential elements 6 (according to Form Standard site designation) of the 11 that corresponds to an overall environmental impact.

A distribution level of impact on the species criterion is summarized in Table. 5.XXXI

Table. 5.XXXI Impact level repartition on criteria elements that designated ROSCI0292 Coridorul Rusca Montana - Tarcu - Retezat

Level of impact	Number of species / habitats criterion	Percentage expression
0	5	45,45
1	3	27,27
2	2	18,18
3	0	0
4	1	9,09
5	0	0

As shown in Table. 3.II. there is a limited relevance, overall project criterion on the elements that led to the designation ROSCI0292 Coridorul Rusca Montana - Tarcu - Retezat.

Habitat change as a consequence of the project

Through the project, will be impacted during construction execution and an area of reduced habitat. Actual footprint of the project remains limited, taking into account:

- Targeted intervention work on the fascia;
- The solutions envisaged for bringing the original state of the land affected and taking measures for ecological restoration;
- During the operation remains buried pipeline route crossing ROSCI0292 throughout so that any type of impact (including landscape) remains excluded;

The impact on flora will exist only during the execution and be local, manifest in a short period of time up to a full seasonal cycle. Within specific measures to minimize the impact will be undertaken activities to prepare the ground to minimize the impact on some species, taking measures to including any temporary relocation.

All affected areas will be subjected to direct actions of ecological restoration.

5.5.2.7. ROSCI0296 Dealurile Drăgășaniului

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied .

In this regard, following categories of impacts associated with human activities has been compiled state table no. 5.XXXII., In which identified 50 categories of impact currently at the pre-project site.

Table. 5.XXXII. Impact categories identified in the ROSCI0296 Dealurile Drăgășanului

Cod	Category	
100	Agriculture, forestry	
101	Cultivation	
102	modification of cultivation techniques	X
110	trimming / cutting	X
120	use of pesticides	X
130	Fertilization	X
140	Irrigation	X
141	Pasture	X
150	abandonment of pastoral systems	X
151	Restructuring possession of land	X
160	removing hedges and kangaroos	X
161	Overall management of forestry	X
162	forestation	
163	artificial planting	X
164	forestation	
165	deforestation	X
166	removing undergrowth	X
167	removing dead trees and sick	X
170	operation without reforestation	X
171	Livestock	X
180	Feedings	X
190	Burning	X
200	Agricultural and forestry activities mentioned above	
210	Fishing, hunting and collecting bodies	
211	Fishery and cunicultura	
212	Professional fishing	
213	fishing fixed place	
220	fishing trawler	
221	putting bait	
230	Recreational fisheries	
240	Hunting	X
241	Assembly / Removal of fauna; general	
242	collection (insects, reptiles, amphibians etc..)	
243	removal of the nest (a falcon)	
244	trapping, poisoning, poaching	
250	gathering other forms of wildlife	
251	Assembly / removal of flora; general	
290	theft flower areas	
300	By hunting, fishing or gathering above	
301	Mining and extraction of materials	
	Sand and gravel extraction	X
	careers	

Cod	Category	
302	removal of the seaside	
310	Peat extraction	
311	manual cutting peat	
312	mechanical removal of peat	
320	Exploration and production of oil and natural gas	
330	Mines	
331	daily mining	
332	underground mining	
340	Salt mines	
390	Mining and extraction of materials listed above	
400	Urbanization, industrialization and similar activities	
400	Urbanized areas, human habitation	X
401	permanent settlements	X
402	staple settlements	X
403	dispersed settlements	X
409	other settlements	X
410	Industrial or commercial areas	
411	factories	
412	industrial warehouses	X
419	other industrial or commercial areas	
420	Evictions	
421	storing waste	X
422	industrial waste storage	X
423	storage of inert materials	X
424	other releases	
430	Agricultural structures	X
440	Storing	
490	Other activities urban, industrial and similar	X
500	Transport and communications	
500	Communications networks	
501	paths, tracks, routes for cyclists	
502	roads, highways	X
503	railway line, the TGV	X
504	port areas	
505	airports	
506	airfields, heliports	
507	bridges, viaducts	
508	tunnels	X
509	other communications networks	
510	Energy transport	X
511	power lines	X
512	oil pipeline	
513	other forms of energy transportation	
520	Naval transport	X
530	Improving access to site	
590	Other forms of transport and communications	
600	Recreation and Tourism (some are included above under other names)	
600	Leisure and tourism structures	
601	golf courses	
602	ski runs	
603	stadiums	
604	tours, trails	
605	racecourses	
606	amusement parks	

Cod	Category	
607	Uneven sports	
608	camping for caravans and campers	
609	other complex leisure / sport	X
610	Interpretation Centre	X
620	Outdoor sports and leisure activities	X
621	water sports	
622	walking, horse riding and non-motorized vehicles	
623	motor vehicles	X
624	mountaineering, climbing and caving	
625	sport of hang gliding, hang gliding, paragliding and balloon	
626	skiing, extreme sports (trails off)	
629	other outdoor sports and leisure	
690	Other outdoor sports and recreational above	
	Pollution and other activities / impacts of human activities	
700	Pollution	X
701	water pollution	X
702	air pollution	X
703	soil pollution	X
709	or other combined forms of pollution	
710	Noise pollution	X
720	Travel by unauthorized vessels; wear	
730	Military maneuvers	
740	Vandalism	X
790	Other activities and polluting consequences	
	Status changes damp marine environments induced by human activity	
800	Fitting garbage dumps, impoundment and drying the earth; general	
801	damming depressions	
802	damming land area marine or estuarine marshes	
803	backfilling ditches, dams, ponds, ponds, marshes or pits	
810	Draining	
811	aquatic and shore vegetation management to drain	
820	Removal of sediments (mud ...)	
830	Sewerage	
840	Flooding	
850	Modifying the river system; general	
851	changing sea currents	
852	changing the structures that comprise the continental watercourses	
853	management of the water levels	
860	Filing and storage of silt in suspension	
870	Weirs, dams, artificial beaches; general	
871	defense works in front of the sea or the protection of the coast	
890	Hydraulic other status changes due to human	
	Natural processes (biotic and abiotic)	
900	Erosion	
910	Alluvial	
920	Drying	
930	Flooding	
940	Natural disasters	
941	flood	
942	avalanche	
943	diving terrain and landslides	
944	storms, cyclones	
945	volcanoes	
946	earthquakes	
947	tide	

Cod	Category	
948	fire (natural)	
949	other natural disasters	
950	Biocenotic evolution	
951	accumulation of the organic material	X
952	eutrophication	
953	acidification	
954	a species invasion	X
960	Interspecific faunal relationships	
961	competition (eg: Gull / gurnard)	
962	parasitism	X
963	introduction of a disease	
964	genetic pollution	
965	beasts of prey	
966	antagonism due to the introduction of a new species	
967	domestic animals antagonism	
969	other forms or mixed forms of interspecific faunal relations	
970	Floristic relationships interspecific	
971	competition	
972	parasitism	
973	introduction of a disease	
974	genetic pollution	
975	lack of pollination agents	
976	damage due to wind	
979	other forms or mixed forms of flora interspecific relations	
990	Other natural processes	

Given that BRUA route does not overlap the perimeter of the site ROSCI0296 Hills DRAGASANI impact of cumulative impact categories existing in the pre-project is unlikely to occur with the implementation phases of the project BRUA (construction / operation).

Particular accessibility of the area, the presence of numerous settlements and access roads, the objectives of socio-economic interest, made the whole entire area to experience a significant impact.

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSCI0296 DRAGASANI Hills, is summarized in Table 5.XXXIII., And were considered three levels of impact:

- red = significant level of impact;
- yellow = moderate level of impact;
- green = low level of impact;

Table 5.XXXIII. Current state assessments of conservation in ROSCI0296 Dealurile Drăgășanului

Crt.	Name	Code	%	of total surface (ha)
1.	Deciduous	311	98	7473,48
2.	Vineyards	221, 222	2	152,52

The whole site is presented with a good state of preservation, but with extensive areas subjected to a moderate level impact.

According to Standard Form of designating Natura 2000 sites for ROSCI0296 Hills DRAGASANI criterion elements that led to the designation of the site can be found listed in sections 3.1, 3.2 respectively. This situation is represented in the Table. 5.XXXIV.

Table. 5.XXXIV. Relevance notes of the BRUA project impacts on criteria elements that designated ROSCI0296 Dealurile Drăgășanului

Nr. Crt.	Species/habitat	Relevance note	Justification
1.	9130 <i>Asperulo- =Fagetum beech forests</i>	0	The project does not overlap with forest areas at ROSCI0296.
2	91M0 <i>Balkan-Pannonian forests of oak and sky</i>	0	The project does not overlap with forest areas at ROSCI0296.
3	91Y0 <i>Dacian forests of oak and hornbeam</i>	0	The project does not overlap with forest areas at ROSCI0296.
4	1083 <i>Lucanus cervus</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
5	1088 <i>Cerambyx cerdo</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.
6	1089 <i>Morimus funereus</i>	0	The project is unable to affect critical habitat used by this species. Resident populations at the site are not affected.

5.5.2.8. ROSCI0385 Râul Timiș între Rusca și Prisaca

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied .

In this regard, following categories of impacts associated with human activities has been compiled state table shown below, in which identified 72 impact categories currently in the pre-project site level - see table 5.XXXV.

Table. 5.XXXV. Impact categories identified in the ROSCI0385 Râul Timiș între Rusca și Prisaca

Code	Category	
	Agriculture, forestry	
100	Cultivation	
101	modification of cultivation techniques	X
102	trimming / cutting	X
110	use of pesticides	X
120	Fertilization	X
130	Irrigation	X
140	Pasture	X
141	abandonment of pastoral systems	X
150	Restructuring possession of land	X
151	removing hedges and kangaroos	X
160	Overall management of forestry	
161	forestation	X
162	artificial planting	X
163	forestation	
164	deforestation	X
165	removing undergrowth	X
166	removing dead trees and sick	X
167	operation without reforestation	
170	Livestock	X
171	Feedings	X
180	Burning	X
190	Agricultural and forestry activities mentioned above	

Code	Category	
200	Fishing, hunting and collecting bodies	
210	Fishery and cunicultura	
211	Professional fishing	
212	fishing fixed place	
213	fishing trawler	
213	purse	X
220	Recreational fisheries	X
221	putting bait	X
230	Hunting	X
240	Assembly / Removal of fauna; general	
241	collection (insects, reptiles, amphibians etc..)	
242	removal of the nest (a falcon)	
243	trapping, poisoning, poaching	X
244	gathering other forms of wildlife	
250	Assembly / removal of flora; general	
251	theft flower areas	
290	By hunting, fishing or gathering above	
300	Mining and extraction of materials	
301	Sand and gravel extraction	X
302	careers	
302	removal of the seaside	
310	Peat extraction	
311	manual cutting peat	
312	mechanical removal of peat	
320	Exploration and production of oil and natural gas	
330	Mines	
331	daily mining	
332	underground mining	
340	Salt mines	
390	Mining and extraction of materials listed above	
400	Urbanization, industrialization and similar activities	X
400	Urbanized areas, human habitation	X
401	permanent settlements	X
402	staple settlements	X
403	dispersed settlements	X
409	other settlements	X
410	Industrial or commercial areas	X
411	factories	X
412	industrial warehouses	X
419	other industrial or commercial areas	X
420	Evictions	X
421	storing waste	X
422	industrial waste storage	X
423	storage of inert materials	X
424	other releases	X
430	Agricultural structures	X
440	Storing	X
490	Other activities urban, industrial and similar	X
500	Transport and communications	X
500	Communications networks	X
501	paths, tracks, routes for cyclists	X
502	roads, highways	X
503	railway line, the TGV	X

Code	Category	
504	port areas	
505	airports	
506	airfields, heliports	
507	bridges, viaducts	
508	tunnels	
509	other communications networks	
510	Energy transport	
511	power lines	X
512	oil pipeline	
513	other forms of energy transportation	X
520	Naval transport	X
530	Improving access to site	
590	Other forms of transport and communications	
	Recreation and Tourism (some are included above under other names)	X
600	Leisure and tourism structures	X
601	golf courses	
602	ski runs	X
603	stadiums	
604	tours, trails	
605	racecourses	
606	amusement parks	
607	Uneven sports	
608	camping for caravans and campers	X
609	other complex leisure / sport	X
610	Interpretation Centre	
620	Outdoor sports and leisure activities	X
621	water sports	
622	walking, horse riding and non-motorized vehicles	
623	motor vehicles	X
624	mountaineering, climbing and caving	
625	sport of hang gliding, hang gliding, paragliding and balloon	
626	skiing, extreme sports (trails off)	X
629	other outdoor sports and leisure	
690	Other outdoor sports and recreational above	
	Pollution and other activities / impacts of human activities	
700	Pollution	X
701	water pollution	X
702	air pollution	X
703	soil pollution	X
709	or other combined forms of pollution	
710	Noise pollution	X
720	Travel by unauthorized vessels; wear	
730	Military maneuvers	
740	Vandalism	
790	Other activities and polluting consequences	
	Status changes damp marine environments induced by human activity	
800	Fitting garbage dumps, impoundment and drying the earth; general	
801	damming depressions	X
802	damming land area marine or estuarine marshes	X
803	backfilling ditches, dams, ponds, ponds, marshes or pits	
810	Draining	
811	aquatic and shore vegetation management to drain	X
820	Removal of sediments (mud ...)	
830	Sewerage	X
840	Flooding	

Code	Category	
850	Modifying the river system; general	
851	changing sea currents	
852	changing the structures that comprise the continental watercourses	
853	management of the water levels	X
860	Filing and storage of silt in suspension	
870	Weirs, dams, artificial beaches; general	
871	defense works in front of the sea or the protection of the coast	
890	Hydraulic other status changes due to human	
	Natural processes (biotic and abiotic)	
900	Erosion	X
910	Alluvial	
920	Drying	
930	Flooding	
940	Natural disasters	
941	flood	
942	avalanche	
943	diving terrain and landslides	
944	storms, cyclones	
945	volcanoes	
946	earthquakes	
947	tide	
948	fire (natural)	
949	other natural disasters	
950	Biocenotic evolution	
951	accumulation of the organic material	X
952	eutrophication	
953	acidification	
954	a species invasion	X
960	Interspecific faunal relationships	
961	competition (eg: Gull / gurnard)	
962	parasitism	X
963	introduction of a disease	
964	genetic pollution	
965	beasts of prey	
966	antagonism due to the introduction of a new species	
967	domestic animals antagonism	X
969	other forms or mixed forms of interspecific faunal relations	
970	Floristic relationships interspecific	
971	competition	
972	parasitism	
973	introduction of a disease	
974	genetic pollution	
975	lack of pollination agents	
976	damage due to wind	
979	other forms or mixed forms of flora interspecific relations	
990	Other natural processes	

The impact of the categories that contribute to the vulnerability of the site, some of which were identified in the study are explained briefly perimeter. In addition they have been identified other categories of impact with limited effect (local) but also present in the target perimeter, such as the degree overgrazing, wood exploitation, etc.

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSCI0385 Timis River between Rusca and Prisaca, is summarized in Table. 5.XXXVI., And were considered three levels of impact:

- red = significant level of impact;

- yellow = moderate level of impact;
- green = low level of impact;

Table nr.5.XXXVI. Current state assessment of the conservation in ROSCI0385 Râul Timiș între Rusca și Prisaca

Crt.	Name	Code	%	of total surface (ha)
1	Rivers, lakes	511, 512	14	202,1
2	Crops (other arable land)	211-213	9	129,6
3	Pastures	231	11	158,5
4	Other arable land	242, 243	59	850,1
5	Forest habitats, forests in transition	324	7	101

For species / habitat conservation interest upon which established the existence of a potential impact of the project was a detailed analysis, accompanied by measures to mitigate its impact.

For each species / habitat was allocated a touch of relevance in order to establish a global value index impactation. The situation is prezentată în table. 5.XXXVII.

Table. 5.XXXVII. Relevance notes of the BRUA project impacts on criteria elements that designated ROSCI0385 Râul Timiș între Rusca și Prisaca

Nr. Crt.	Species/habitat	Relevance note	Justification
68.	1307 <i>Myotis blythii</i>	1	Limited impact caused by the presence and human activity
69.	1355 <i>Lutra lutra</i>	0	Species missing from the project implementation BRUA.
70.	1324 <i>Myotis myotis</i>	1	Limited impact caused by the presence and human activity
71.	1166 <i>Triturus cristatus</i>	1	Limited impact caused by the presence and human activity
72.	1193 <i>Bombina variegata</i>	4	Impact due to construction
73.	1188 <i>Bombina bombina</i>	4	Impact due to construction
74.	1217 <i>Testudo hermanni</i>	3	Potential impact, unlikely, but preventive measures are provided.
75.	1138 <i>Barbus meridionalis</i>	0	Species associated watercourses. Timis river crossing will be made by horizontal drilling.
76.	1134 <i>Rhodeus sericeus amarus</i>	0	Species associated watercourses. Timis river crossing will be made by horizontal drilling.
77.	1149 <i>Cobitis taenia</i>	0	Species associated watercourses. Timis river crossing will be made by horizontal drilling.
78.	4123 <i>Eudontomyzon danfordi</i>	0	Species associated watercourses. Timis river crossing will be made by horizontal drilling.
79.	2485 <i>Eudontomyzon vladkovi</i>	0	Species associated watercourses. Timis river crossing will be made by horizontal drilling.

Cumulative level of impact on the species / habitats within the site criterion expressed by a method adapted from the model proposed deRojanski illustrative, using notes relevance is interpreted via a chart.

The ideal state is graphically represented by a geometrical figure having 100% expressed as a percentage defining the 12 X 5 = 60 quadrants.

Linking percent synthetic, can be expressed as the percent:

- **0%** - the project does not generate any kind of impact on all species / habitats criterion;
- **0-20%** - project generates little impact on the overall species / habitats criterion;
- **20-40%** - project generates a limited impact on the overall species / habitats criterion;
- **40-60%** - project generates a large impact on the overall significance of the species / habitats criterion;
- **60-80%** - project generates particularly high significance impact on all species / habitats criterion measures imposing complex compensation / ecological restoration;
- **80-100%** - project generates a broad impact on all species / habitats criterion leads to irreversible impairment of a natural heritage site.

Notes relevance will structure a diagram in which each Quadratus will receive a percentage that will report the total number of quadrants.

Expression will reveal the percentage of the cumulative impact on biodiversity.

The total number of quadrants that reveals the presence of impact is null, not identified a potential impact on species criterion which led to the designation of the site. This situation is represented in the table. 5.XXXVIII.

Table. 5.XXXVIII. Relevance notes of the BRUA project impacts on criteria elements that designated ROSCI0385 Râul Timiș Între Rusca și Prisaca

Nr. Crt.	Species/habitat	Relevance note	Scale of impact				
			1	2	3	4	5
68.	1307 <i>Myotis blythii</i>	1					
69.	1355 <i>Lutra lutra</i>	0					
70.	1324 <i>Myotis myotis</i>	1					
71.	1166 <i>Triturus cristatus</i>	1					
72.	1193 <i>Bombina variegata</i>	4					
73.	1188 <i>Bombina bombina</i>	4					
74.	1217 <i>Testudo hermanni</i>	3					
75.	1138 <i>Barbus meridionalis</i>	0					
76.	1134 <i>Rhodeus sericeus amarus</i>	0					
77.	1149 <i>Cobitis taenia</i>	0					
78.	4123 <i>Eudontomyzon danfordi</i>	0					
79.	2485 <i>Eudontomyzon vladykovi</i>	0					

Percentage calculation reveals a value of 50% which reflects on a number of potential elements 6 (according to Form Standard site designation) of the 12 that corresponds to an overall environmental impact.

A distribution level of impact on the species criterion is summarized in Table. 5.XXXIX.

Table. 5.XXXIX Impact level repartition on criteria elements that designated ROSCI0385 Râul Timiș între Rusca și Prisaca

Level of impact	Number of species / habitats criterion	Percentage expression
0	6	50
1	3	25
2	0	0
3	1	8.3

4	2	16.6
5	0	0

As shown in Table. 5.XXXIX. there is a limited relevance, overall project criterion on the elements that led to the designation ROSCI0385

5.5.2.9. ROSPA0045 Grădiștea Muncelului - Cioclovina

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied .

In this regard, following categories of impacts associated with human activities has been compiled state table shown in Table. 5.XL. in which identified 59 impact categories currently in the pre-project site level.

Table. 5.XL Impact categories identified in the ROSPA0045 Grădiștea Muncelului Cioclovina

Cod	Category	
100	Agriculture, forestry	
101	Cultivation	
102	modification of cultivation techniques	X
110	trimming / cutting	X
120	use of pesticides	X
130	Fertilization	X
140	Irrigation	X
141	Pasture	X
150	abandonment of pastoral systems	X
151	Restructuring possession of land	X
160	removing hedges and kangaroos	X
161	Overall management of forestry	X
162	forestation	
163	artificial planting	X
164	forestation	
165	deforestation	X
166	removing undergrowth	X
167	removing dead trees and sick	X
170	operation without reforestation	X
171	Livestock	X
180	Feedings	X
190	Burning	X
200	Agricultural and forestry activities mentioned above	
210	Fishing, hunting and collecting bodies	
211	Fishery and cunicultura	
212	Professional fishing	
213	fishing fixed place	
220	fishing trawler	
221	purse	
230	Recreational fisheries	X
240	putting bait	X
241	Hunting	X
242	Assembly / Removal of fauna; general	
243	collection (insects, reptiles, amphibians etc..)	
244	removal of the nest (a falcon)	
	trapping, poisoning, poaching	X
	gathering other forms of wildlife	

Cod	Category	
250	Assembly / removal of flora; general	X
251	theft flower areas	
290	By hunting, fishing or gathering above	
	Mining and extraction of materials	
300	Sand and gravel extraction	X
301	careers	X
302	removal of the seaside	
310	Peat extraction	
311	manual cutting peat	
312	mechanical removal of peat	
320	Exploration and production of oil and natural gas	
330	Mines	
331	daily mining	
332	underground mining	
340	Salt mines	
390	Mining and extraction of materials listed above	
	Urbanization, industrialization and similar activities	
400	Urbanized areas, human habitation	X
401	permanent settlements	X
402	staple settlements	X
403	dispersed settlements	X
409	other settlements	X
410	Industrial or commercial areas	
411	factories	
412	industrial warehouses	X
419	other industrial or commercial areas	
420	Evictions	
421	storing waste	X
422	industrial waste storage	X
423	storage of inert materials	X
424	other releases	
430	Agricultural structures	X
440	Storing	
490	Other activities urban, industrial and similar	X
	Transport and communications	
500	Communications networks	X
501	paths, tracks, routes for cyclists	X
502	roads, highways	X
503	railway line, the TGV	
504	port areas	
505	airports	
506	airfields, heliports	
507	bridges, viaducts	X
508	tunnels	
509	other communications networks	
510	Energy transport	X
511	power lines	X
512	oil pipeline	
513	other forms of energy transportation	
520	Naval transport	
530	Improving access to site	
590	Other forms of transport and communications	
	Recreation and Tourism (some are included above under other names)	

Cod	Category	
600	Leisure and tourism structures	
601	golf courses	
602	ski runs	
603	stadiums	
604	tours, trails	
605	racecourses	
606	amusement parks	
607	Uneven sports	
608	camping for caravans and campers	
609	other complex leisure / sport	X
610	Interpretation Centre	X
620	Outdoor sports and leisure activities	X
621	water sports	X
622	walking, horse riding and non-motorized vehicles	X
623	motor vehicles	X
624	mountaineering, climbing and caving	X
625	sport of hang gliding, hang gliding, paragliding and balloon	
626	skiing, extreme sports (trails off)	
629	other outdoor sports and leisure	
690	Other outdoor sports and recreational above	
	Pollution and other activities / impacts of human activities	
700	Pollution	X
701	water pollution	X
702	air pollution	X
703	soil pollution	X
709	or other combined forms of pollution	
710	Noise pollution	X
720	Travel by unauthorized vessels; wear	
730	Military maneuvers	
740	Vandalism	X
790	Other activities and polluting consequences	
	Status changes damp marine environments induced by human activity	
800	Fitting garbage dumps, impoundment and drying the earth; general	
801	damming depressions	
802	damming land area marine or estuarine marshes	
803	backfilling ditches, dams, ponds, ponds, marshes or pits	
810	Draining	
811	aquatic and shore vegetation management to drain	
820	Removal of sediments (mud ...)	
830	Sewerage	
840	Flooding	
850	Modifying the river system; general	
851	changing sea currents	
852	changing the structures that comprise the continental watercourses	
853	management of the water levels	
860	Filing and storage of silt in suspension	
870	Weirs, dams, artificial beaches; general	
871	defense works in front of the sea or the protection of the coast	
890	Hydraulic other status changes due to human	
	Natural processes (biotic and abiotic)	
900	Erosion	
910	Alluvial	
920	Drying	
930	Flooding	
940	Natural disasters	

Cod	Category	
941	flood	
942	avalanche	
943	diving terrain and landslides	
944	storms, cyclones	
945	volcanoes	
946	earthquakes	
947	tide	
948	fire (natural)	
949	other natural disasters	
950	Biocenotic evolution	
951	accumulation of the organic material	X
952	eutrophication	X
953	acidification	
954	a species invasion	X
960	Interspecific faunal relationships	
961	competition (eg: Gull / gurnard)	
962	parasitism	X
963	introduction of a disease	
964	genetic pollution	
965	beasts of prey	
966	antagonism due to the introduction of a new species	
967	domestic animals antagonism	
969	other forms or mixed forms of interspecific faunal relations	
970	Floristic relationships interspecific	
971	competition	
972	parasitism	
973	introduction of a disease	
974	genetic pollution	
975	lack of pollination agents	
976	damage due to wind	
979	other forms or mixed forms of flora interspecific relations	
990	Other natural processes	

Given that BRUA route does not overlap the perimeter of the site ROSPA0045 Grădiștea Muncelului Cioclovina an impact cumulative impact categories existing in the pre-project is unlikely to occur with the implementation phases of the project BRUA (construction / operation).

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSPA0045 Grădiștea Muncelului Cioclovina, is summarized in Table. XLI., And they were considered three levels of impact:

- red = significant level of impact;
- yellow = moderate level of impact;
- green = low level of impact;

Table 5XLI. Current state assessments on conservation in ROSPA0045 Grădiștea Muncelului Cioclovina

Crt.	Name	Code	%	of total surface (ha)
1.	Natural grasslands, steppes	321	7	2664,2
2.	Pastures	231	3	1141,8
3.	Other arable land	242, 243	11	4186,6
4.	Deciduous	311	64	24358,4
5.	Coniferous forests	312	8	3044,8
6.	Mixed forests	313	4	1522,4
7.	Forest habitats (forests in transition)	324	3	1141,8

The whole site is presented with a good state of preservation, but with extensive areas subjected to a moderate level impactation.

For species / habitat conservation interest upon which established the existence of a potential impact of the project was a detailed analysis, accompanied by measures to mitigate its impact.

For each species / habitat was allocated a touch of relevance in order to establish a global value index impactation. The situation is prezentată în table. 5.XLII.

Table. 5.XLII. Relevance notes of the BRUA project impacts on criteria elements that designated ROSPA0045
Grădiștea Muncelului Cioclovina

Nr. Crt.	Species/habitat	Relevance note	Justification
1	A072 <i>Pernis apivorus</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
2	A104 <i>Bonasa bonasia</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
3	A122 <i>Crex crex</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
4	A215 <i>Bubo bubo</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
5	A223 <i>Aegolius funereus</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
6	A217 <i>Glaucidium passerinum</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
7	A220 <i>Strix uralensis</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
8	A224 <i>Caprimulgus europaeus</i>	1	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species. It allows a limited impact, potentially, indirectly.
9	A234 <i>Picus canus</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.

Nr. Crt.	Species/habitat	Relevance note	Justification
10	A239 <i>Dendrocopos leucotos</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
11	A030 <i>Ciconia nigra</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
12	A089 <i>Aquila pomarina</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
13	A080 <i>Circaetus gallicus</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
14	A238 <i>Dendrocopos medius</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
15	A236 <i>Dryocopus martius</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
16	A321 <i>Ficedula albicollis</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
17	A320 <i>Ficedula parva</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
18	A338 <i>Lanius collurio</i>	1	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
19	A246 <i>Lullula arborea</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.
20	A108 <i>Tetrao urogallus</i>	0	The project is conducted outside ROSPA0045 BRUA and does not affect vital habitats of the species directly or significant populations of such species.

Cumulative level of impact on the species / habitats within the site criterion expressed by a method adapted from the model proposed deRojanski illustrative, using notes relevance is interpreted via a chart.

The ideal state is graphically represented by a geometrical figure having 100% expressed as a percentage defining the 20 X 5 = 100 quadrant.

Linking percent synthetic, can be expressed as the percent:

- **0%** - the project does not generate any kind of impact on all species / habitats criterion;
- **0-20%** - project generates little impact on the overall species / habitats criterion;
- **20-40%** - project generates a limited impact on the overall species / habitats criterion;
- **40-60%** - project generates a large impact on the overall significance of the species / habitats criterion;
- **60-80%** - project generates particularly high significance impact on all species / habitats criterion measures imposing complex compensation / ecological restoration;
- **80-100%** - project generates a broad impact on all species / habitats criterion leads to irreversible impairment of a natural heritage site.

Notes relevance will structure a diagram in which each Quadratus will receive a percentage that will report the total number of quadrants.

Expression will reveal the percentage of the cumulative impact on biodiversity.

The total number of quadrants that reveals the presence of impact is null, not identified a potential impact on species criterion which led to the designation of the site. This situation is represented in the table. 5.XLIII.

Table. 5.XLIII. Relevance notes of the BRUA project impacts on criteria elements that designated ROSPA0045 Grădiștea Muncelului - Cioclovina

Nr. Crt.	Species/habitat	Relevance note	Scale of impact				
			1	2	3	4	5
1.	A072 <i>Pernis apivorus</i>	0					
2.	A104 <i>Bonasa bonasia</i>	0					
3.	A122 <i>Crex crex</i>	0					
4.	A215 <i>Bubo bubo</i>	0					
5.	A223 <i>Aegolius funereus</i>	0					
6.	A217 <i>Glaucidium passerinum</i>	0					
7.	A220 <i>Strix uralensis</i>	0					
8.	A224 <i>Caprimulgus europaeus</i>	1					
9.	A234 <i>Picus canus</i>	0					
10.	A239 <i>Dendrocopos leucotos</i>	0					
11.	A030 <i>Ciconia nigra</i>	0					
12.	A089 <i>Aquila pomarina</i>	0					
13.	A080 <i>Circaetus gallicus</i>	0					
14.	A238 <i>Dendrocopos medius</i>	0					
15.	A236 <i>Dryocopus martius</i>	0					
16.	A321 <i>Ficedula albicollis</i>	0					
17.	A320 <i>Ficedula parva</i>	0					
18.	A338 <i>Lanius collurio</i>	1					
19.	A246 <i>Lullula arborea</i>	0					
20.	A108 <i>Tetrao urogallus</i>	0					

Calculul procentual relevă o valoare de 10% ce se răsfrânge asupra unui număr de 2 de elemente potențiale (conform Formularului Standard de desemnare a sitului), din cele 20 ce corespunde unui nivel de impact de ansamblu mediu.

O repartiție a nivelului de impactare asupra speciilor criteriu este prezentată sintetic în tabelul nr. 5.XLVI.

Table. 5.XLVI Impact level repartition on criteria elements that designated ROSPA0045 Grădiștea criterion Muncelului - Cioclovina

Level of impact	Number of species / habitats criterion	Percentage expression
0	18	90
1	2	10
2	0	0
3	0	0
4	0	0
5	0	0

5.5.2.10. ROSPA0106 Valea Oltului Inferior

Following system encoding activities anthropogenic impact proposed to assess the environmental status of the Natura 2000 sites was analyzed size human impact of pre-project phase (before project implementation), or so-called analysis of the current state of the perimeter studied .

In this regard, following categories of impacts associated with human activities has been compiled state table no. 5.XLV in which identified 58 impact categories currently in the pre-project site level.

Table 5.XLV. Impact categories present in ROSPA0106 Valea Oltului Inferior

Cod	Category	
100	Agriculture, forestry	
101	Cultivation	
102	modification of cultivation techniques	X
110	trimming / cutting	X
120	use of pesticides	X
130	Fertilization	X
140	Irrigation	X
141	Pasture	X
150	abandonment of pastoral systems	X
151	Restructuring possession of land	X
160	removing hedges and kangaroos	X
161	Overall management of forestry	X
162	forestation	
163	artificial planting	X
164	forestation	
165	deforestation	X
166	removing undergrowth	X
167	removing dead trees and sick	X
170	operation without reforestation	X
171	Livestock	X
180	Feedings	X
190	Burning	X
200	Agricultural and forestry activities mentioned above	
210	Fishing, hunting and collecting bodies	
211	Fishery and cunicultura	
212	Professional fishing	X
213	fishing fixed place	X
	fishing trawler	
	purse	X

Cod	Category	
220	Recreational fisheries	X
221	putting bait	
230	Hunting	X
240	Assembly / Removal of fauna; general	
241	collection (insects, reptiles, amphibians etc..)	X
242	removal of the nest (a falcon)	
243	trapping, poisoning, poaching	X
244	gathering other forms of wildlife	
250	Assembly / removal of flora; general	
251	theft flower areas	
290	By hunting, fishing or gathering above	
	Mining and extraction of materials	
300	Sand and gravel extraction	X
301	careers	
302	removal of the seaside	X
310	Peat extraction	
311	manual cutting peat	
312	mechanical removal of peat	
320	Exploration and production of oil and natural gas	
330	Mines	
331	daily mining	
332	underground mining	
340	Salt mines	
390	Mining and extraction of materials listed above	
	Urbanization, industrialization and similar activities	
400	Urbanized areas, human habitation	
401	permanent settlements	X
402	staple settlements	
403	dispersed settlements	
409	other settlements	X
410	Industrial or commercial areas	
411	factories	
412	industrial warehouses	
419	other industrial or commercial areas	
420	Evictions	
421	storing waste	X
422	industrial waste storage	
423	storage of inert materials	X
424	other releases	
430	Agricultural structures	X
440	Storing	
490	Other activities urban, industrial and similar	
	Transport and communications	
500	Communications networks	
501	paths, tracks, routes for cyclists	
502	roads, highways	X
503	railway line, the TGV	X
504	port areas	
505	airports	
506	airfields, heliports	
507	bridges, viaducts	
508	tunnels	
509	other communications networks	
510	Energy transport	

Cod	Category	
511	power lines	X
512	oil pipeline	
513	other forms of energy transportation	
520	Naval transport	X
530	Improving access to site	
590	Other forms of transport and communications	
	Recreation and Tourism (some are included above under other names)	
600	Leisure and tourism structures	
601	golf courses	
602	ski runs	
603	stadiums	
604	tours, trails	
605	racecourses	
606	amusement parks	
607	Uneven sports	
608	camping for caravans and campers	
609	other complex leisure / sport	
610	Interpretation Centre	
620	Outdoor sports and leisure activities	
621	water sports	X
622	walking, horse riding and non-motorized vehicles	
623	motor vehicles	X
624	mountaineering, climbing and caving	
625	sport of hang gliding, hang gliding, paragliding and balloon	
626	skiing, extreme sports (trails off)	
629	other outdoor sports and leisure	
690	Other outdoor sports and recreational above	
	Pollution and other activities / impacts of human activities	
700	Pollution	
701	water pollution	X
702	air pollution	X
703	soil pollution	X
709	or other combined forms of pollution	
710	Noise pollution	X
720	Travel by unauthorized vessels; wear	
730	Military maneuvers	
740	Vandalism	X
790	Other activities and polluting consequences	
	Status changes damp marine environments induced by human activity	
800	Fitting garbage dumps, impoundment and drying the earth; general	
801	damming depressions	X
802	damming land area marine or estuarine marshes	
803	backfilling ditches, dams, ponds, ponds, marshes or pits	
810	Draining	X
811	aquatic and shore vegetation management to drain	
820	Removal of sediments (mud ...)	X
830	Sewerage	X
840	Flooding	
850	Modifying the river system; general	
851	changing sea currents	
852	changing the structures that comprise the continental watercourses	
853	management of the water levels	
860	Filing and storage of silt in suspension	
870	Weirs, dams, artificial beaches; general	X
871	defense works in front of the sea or the protection of the coast	X

Cod	Category	
890	Hydraulic other status changes due to human	X
	Natural processes (biotic and abiotic)	
900	Erosion	X
910	Alluvial	X
920	Drying	X
930	Flooding	X
940	Natural disasters	
941	flood	X
942	avalanche	
943	diving terrain and landslides	
944	storms, cyclones	
945	volcanoes	
946	earthquakes	
947	tide	
948	fire (natural)	
949	other natural disasters	
950	Biocenotic evolution	
951	accumulation of the organic material	X
952	eutrophication	
953	acidification	
954	a species invasion	X
960	Interspecific faunal relationships	
961	competition (eg: Gull / gurnard)	
962	parasitism	X
963	introduction of a disease	
964	genetic pollution	
965	beasts of prey	
966	antagonism due to the introduction of a new species	
967	domestic animals antagonism	
969	other forms or mixed forms of interspecific faunal relations	
970	Floristic relationships interspecific	
971	competition	
972	parasitism	
973	introduction of a disease	
974	genetic pollution	
975	lack of pollination agents	
976	damage due to wind	
979	other forms or mixed forms of flora interspecific relations	
990	Other natural processes	

The impact of the categories that contribute to the vulnerability of the site, some of which were identified in the study are explained briefly perimeter. In addition they have been identified other categories of impact with limited effect (local), but present in the target perimeter.

Some of impact categories have been found to be present in the studied perimeter (or negligible effects), but some have been identified and explained constituent sub-categories.

The situation of the current state of conservation of the site, starting from the distribution of major biomes described as Natura 2000 standard Form ROSPA0106 Lower Olt Valley, is summarized in Table. 5.XLVI, and they were considered three levels of impact:

- red = significant level of impact;
- yellow = moderate level of impact;
- green = low level of impact;

Table 5.XLVI. Habitats conservation status from the ROSPA0106 Valea Oltului Inferior

Crt.	Name	Code	%	of total surface (ha)
1	Sandy beaches	331	4	1003,24
2	Rivers, lakes	511, 512	25	6270,25
3	Marshes, bogs	411, 412	5	1254,05
4	Natural grasslands, steppes	321	5	1254,05
5	Crops, arable land	211-213	8	1254,05
6	Pastures	231	8	1254,05
7	Woods	311	34	8527,54
8	Woodland habitats (forests in transition)	324	11	2758,91

According to Standard Form of designating Natura 2000 sites for ROSPA0106 Valea Oltului Inferior, criterion elements that led to the designation of the site can be found listed in sections 3.1, respectively 3.2.

Table. 5.XLVII. Relevance notes of the BRUA project impacts on criteria elements that designated ROSPA0106 Valea Oltului Inferior

Nr. Crt.	Species/habitat	Relevance note	Justification
1.	A021 <i>Botaurus stellaris</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.
2.	A133 <i>Burhinus oedicnemus</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.
3.	A031 <i>Ciconia ciconia</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.
4.	A082 <i>Circus cyaneus</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.
5.	A231 <i>Coracias garrulus</i>	1	It allows a limited impact indirectly on this species
6.	A038 <i>Cygnus cygnus</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.
7.	A027 <i>Egretta alba</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.
8.	A022 <i>Ixobrychus minutus</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.
9.	A339 <i>Lanius minor</i>	1	It allows a limited impact indirectly on this species
10.	A177 <i>Larus minutus</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.
11.	A068 <i>Mergus albellus</i>	0	BRUA project does not affect the habitats used by this species at

Nr. Crt.	Species/habitat	Relevance note	Justification
			ROSPA0106.
12.	A151 <i>Philomachus pugnax</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.
13.	A132 <i>Recurvirostra avosetta</i>	0	BRUA project does not affect the habitats used by this species at ROSPA0106.

Cumulative level of impact on the species / habitats within the site criterion expressed by a method adapted from the model proposed deRojanski illustrative, using notes relevance is interpreted via a chart.

The ideal state is graphically represented by a geometrical figure having 100% expressed as a percentage defining the 26 X 5 = 130 quadrant.

Linking percent synthetic, can be expressed as the percent:

- **0%** - the project does not generate any kind of impact on all species / habitats criterion;
- **0-20%** - project generates little impact on the overall species / habitats criterion;
- **20-40%** - project generates a limited impact on the overall species / habitats criterion;
- **40-60%** - project generates a large impact on the overall significance of the species / habitats criterion;
- **60-80%** - project generates particularly high significance impact on all species / habitats criterion measures imposing complex compensation / ecological restoration;
- **80-100%** - project generates a broad impact on all species / habitats criterion leads to irreversible impairment of a natural heritage site.

Notes relevance will structure a diagram in which each Quadratus will receive a percentage that will report the total number of quadrants.

Expression will reveal the percentage of the cumulative impact on biodiversity.

The total number of quadrants that reveals the presence of impact is null, not identified a potential impact on species criterion which led to the designation of the site. This situation is represented in the table. 5.XLVIII.

Table nr.5.XLVIII. Relevance notes of the BRUA project impacts on criteria elements that designated ROSPA0106 Valea Oltului Inferior

Nr. Crt.	Species/habitats	Relevance note	Impact scale				
			1	2	3	4	5
8.	A021 <i>Botaurus stellaris</i>	0					
9.	A133 <i>Burhinus oedicnemus</i>	0					
10.	A031 <i>Ciconia ciconia</i>	0					
11.	A082 <i>Circus cyaneus</i>	0					
12.	A231 <i>Coracias garrulus</i>	1					
13.	A038 <i>Cygnus cygnus</i>	0					
14.	A027 <i>Egretta alba</i>	0					
15.	A022 <i>Ixobrychus minutus</i>	0					
16.	A339 <i>Lanius minor</i>	1					
17.	A177 <i>Larus minutus</i>	0					
18.	A068 <i>Mergus albellus</i>	0					
19.	A151 <i>Philomachus pugnax</i>	0					
20.	A132 <i>Recurvirostra avosetta</i>	0					

Percentage calculation reveals a value of 10% which reflects on a number of potential items 2 (according to Form Standard site designation) of the 20 that corresponds to an overall environmental impact.

A distribution level of impact on the species criterion is summarized in Table. 5.XLIX.

Table. 5.XLIX Impact level repartition on criteria elements that designated ROSPA0106 Valea Oltului Inferior

Impact level	Number of species / habitats criterion	Percentage expression
0	24	92,7
1	2	7,3
2	0	0
3	0	0
4	0	0
5	0	0