

## ANTHROPIC PRESSURE ON THE ENVIRONMENT AND ITS CONSEQUENCES IN VALCEA SUB- CARPATHIANS

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**Abstract:** *Anthropogenic impact on the environment has generated over time a wide range of effects some of which are irreversible. Aggregated and diversified over time, these effects led to major changes in the balance of environmental natural components. Thus, deforestation, irrational grazing, exploitation of underground resources are the main reasons that determined the expansion of fragile geo systems ,biodiversity loss ,changes in the hydrological regime, top climate diversity, intensification of current geomorphological processes. There are many major causes of environmental degradation, acting separately or in a continuous interdependence with human activity. The natural environment must be preserved and protected in a conscious way, to avoid disparities and its effects on human health.*

**Keywords:** *Anthropogenic impact, Valcea Sub - Carpathians*

### 1. Introduction

Considering the early existence of the human settlements in the region of the Subcarpathians analysed, of activities in principal related of the exploitation of the natural resources, the spontaneous landscape changed, sometimes irreversible. All of that in detrimental of the forest domain also, pressing of the human settlements to the environment it reflects especially at Nord of the “ Pietrari – Arnota – Vaideeni, area of the „empty baffle stone” spread on the elevation that separate the mountain zone of the depressions. (V. Tufescu, 1966).

The land that was discovered and exploited for the underground resources (coal, petroleum, baffle stone,etc.) with changes of the topographic surface petroleum extraction and storage, etc. Although exploitation of the coal ceased, dumps is a danger if not correct managed. Construction of any kind, geological unreported, geodesic can generate processes to limit topographical surface.

Of relief undesirable phenomena unwanted. By resources exploitation and other activities for storage, transport, etc., the anthropogenic factor influencing environmental quality.

Fragmentation and degradation natural landscape with forests and foothill pastures (Figure 1), by replacing their industrial landscape through works specific mining (uncovering and excavations) fitting and access routes and industrial facilities it led to the transformation of the natural landscape and wild the key Costesti as the adjacent area in landscape mining aspect, resulting debris cone the collapsed material, clogging keys and blocking the watercourse.



Figure 1 Limestone quarry Bistrita-Costesti county Valcea

### 2. MATERIALS AND METHODS

In year 1957 the forest was formed in 38% beech and oak, a summary analysis from the same year presents depressions Carpathian region at the discretion of Horezu northward that is dominated by forests and livestock , and south of this line of viticulture and fruit.

Should to keep so-called core regions where is structure conserved functions and biodiversity and ecosystems to exist management permanently.

Infrastructure modernization it has a positive side by creating access roads but also a less positive because this reduces green space.

On the area of the city Horezu It can be noticed (Table 1 and Figure 2) an extension of the roads upgrades from 29 Km in the year 2000 to 71 km in the year 2013.

Table 1 The length of urban roads on the area of the locality from the study area

City	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>BABENI</b>			17 km	27 km	27 Km	27Km	57 Km	57 Km	57 Km	57Km	58Km	58Km	58Km	63Km	58Km	58km
<b>BERBEȘTI</b>				48 Km	48 Km	48Km	48 Km	48 Km	48 Km	41km	41km	41km	41km	41km	41km	43km
<b>HOREZU</b>	29 km	29 km	29 km	29 km	29 Km	29 Km	29 Km	29 Km	29 Km	29km	71Km	71Km	71Km	71Km	50km	50km

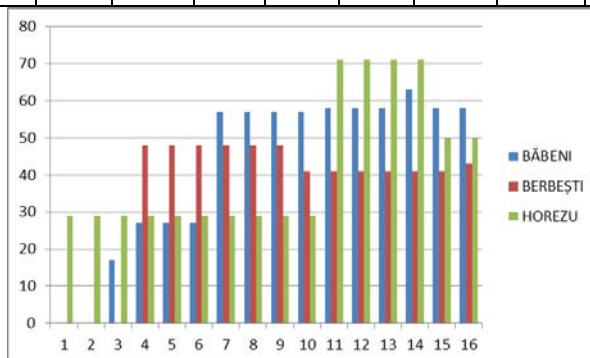


Figure 2 The length of urban roads on the area of the locality from the study area

Horezu among cities in the study area (Table 2) maintained a constant area of 12 hectares of green spaces over a long period of time; Berbesti, a city where coal exploitation was the main source of local economy and increased its area occupied by green spaces, reaching 16 ha in 2015. Removal from various causes of the forest with a specific top climates and of the green areas, in general, recorded the appearance of other top climates appearance, from which have been expanded permanent, that today are found everywhere.

Because of the appearance walkways air masses hill side or vice versa on the north by the

Barbatesti – Bistrita – Romanii de Jos until approximately Luncavat river is an area of forests predominantly beech associated with the tree. Overgrazing reduce biodiversity of grasslands, expansion of species that are not consumed by animals soil pollution by fertilizers excess intensification of current geomorphological processes etc., the effects are especially reflected in the spread of degraded land affected by erosion processes in surface and depth on the Bistrița Valley between Bărbătești and Pietrari and average values along the middle course of these rivers.

Table 2. Surface of the green areas in the Valcea Subcarpathians

City/Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Băbeni	2 ha	2 ha	2 ha	2 ha	49ha	49ha	49ha	5 ha	5ha	5ha	5ha	5ha	5ha	5ha
Berbești	-	1 ha	2 ha	1 ha	1 ha	1 ha	1 ha	1 ha	1 ha	1 ha	1 ha	1 ha	1 ha	16 ha
Horezu	12ha	12ha	12ha	12ha	12ha	12ha	12ha	12ha	12ha	12ha	12ha	12ha	10ha	10 ha

### 3. RESULTS

Modernization and appearance of water treatment plants, for community wellbeing of people, by providing drinking water services and waste water quality, it led to significant changes in the natural environment by the construction works.

Thus, among the places with great length of drinking water distribution network (Table 3) it consists of: Horezu city (64.3km); Slatioara (55Km); Vaideeni (48,7 Km); Alunu (41 Km); Tomșani (39Km); Babeni (36.2Km);

Table 3 The length of drinking water distribution

Locality/Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Alunu	15,3	4	5	6,2	6,2	22	25	22	22	38	38	38	41	41	41	41
Băbeni	22,5	22,5	22,5	22,5	23	47,5	28	28	30,7	34,2	34,5	34,5	34,5	34,5	34,5	36,2
Berbești	17,5	9,5	9,5	13,3	13,3	24	34	34	34	36	27	27	28	28	28	28
Cerțișoara														9,4	9,4	9,4
Costești	13,2	11,3	11,3	11,3	11,3	11,3	11,3	29	29	29	29	29	29	29,5	29,5	37
Horezu	14	14	14	52	61	61	58	58	58	58	58	58	58	59,3	59,3	64,3
Măldărești	10,3	10,3	10,3	10,3	10,3	10,3	10,3	10,3	10,3	10,3	11,2	11,2	11,2	11,5	11,5	11,5
Mateești	1,5										25	25	31	31	31	31
Pietrari								23	23	30,2	30,2	34,5	35	35	35	35,5
Sinești																17,6
Slătioara						41	41	41	55	55	65	65	65	65	65	55
Șirineasa						24	24	24	24,6	24,6	24,6	24,6	24,6	24,6	24,6	24,6
Tomșani													32,5	38,5	38,5	39
Vaideeni	37	29,9	29,9	31,1	31,1	46,2	46,2	46,2	46,2	46,2	46,2	46,2	46,2	46,2	46,2	48,7

### Conclusion

Wishing to have a comfortable life, humans have polluted more or less serious, soil, water and air, leading to the disappearance of many species of plants and animals. These are faced, in their turn, various diseases caused by pollution and all these interventions caused great damage to the natural environment. Anthropogenic pressure on the environment in this area was conducted mainly in places more accessible and those with significant mineral deposits. Changes caused by the exploitation of subsoil, by deforestation and settlements relating to this is reflected by the following point: forest fragmentation due to deforestation to expand pasture areas; landforms anthropogenic (quarries, galleries mines, dumps) which are sources of metal pollution of soil and surface water; degraded land in some areas. What kind created in millions of years can be destroyed in a few days, months or years. To avoid environmental destruction, must know its laws and act according to them, to protect and preserve the natural environment elements.

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