NOTE

CONSIDERATIONS REGARDING BUHĂIEŞTI – ROMAN RAILWAY

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Abstract. Buhăieşti-Roman railway crosses the western part of the Moldavian Central Plateau, from south-east to north-west, connecting the railway thoroughfares from Moldavian Plateau. Some characteristics of the railway, bridges and footbridges, measures taken for the embankments stabilization and consolidation of the slopes along the railway are presented. Some historic aspects about the construction and the role in the First World War are also presented. Even this is a secondary railway, the role in social and economic development of the crossed area it was and it is important. The historical value of the railway, the contribution to the emerging from the isolation of this area, the sustaining of the commuting towards Negreşti, Vaslui, Roman and Iaşi, the fact that it represents the main transport mode before 1989, these are few aspects which are emphasizing the importance of this railway.

Key words: railway, Buhăieşti – Roman, environment impact

I. DESCRIPTION

Buhăieşti – Roman railway, 71 km long, crosses the western part of the Moldavian Central Plateau, from south-east to north-west, connecting Suceava – Roman – Bacău – Măraşești route from Siret Valley with Iaşi – Vaslui – Bârlad – Tecuci route, which is following Bârlad river downstream Buhăieşti. This railway, representing 605 route, is part of the Iaşi Railways Regional, belonging to the Maintenance railways section L3 Roman.

The present destination of the railway is marchandises and people transport. The line is unelectrified, with secondary importance, and makes the connection between two thoroughfare railways. The railway is simple, having a single line on which the circulation is made in both senses. Only in few stations (like Negreşti) there are many lines, necessary for the manipulation during the marchandises transport. The rail gauge is one of a standard line, 1,435 mm. The maximum declivity of the line este 24,2 %.

Because of the fragmentation of the relief and frequently streams crossing, in order to homogenize the rail slope, in some areas the embankment is very high, by 7-8 meters high (the altitude difference between the embankment platform and the surrounding). Because of the high embankment, during the floods from Moldavia at the beginning of the ’50, the railway traffic was not disturbed. There are information that, during the floods from march 1956, near Dumeşti village, even if the area crossed by the railway was totally covered with water, the embankment and the traffic were not damaged (Lefter et al., 2006).

The railway separates from Iaşi – Bârlad route southward of Buhăieşti, and it follows Bârlad Valley untill Băceştii, on general direction east-west. It advances towards north-north-west upstream on Gârboveta course. To avoid Rusului Hill, in the south-east of Piscu Rusului
village, it leaves Gârboveta course and follows the course of a small affluent on the left, namely Piscu Rusului Valley. Then, in the north-west of Rusului Hill, through a small saddle, the railway crosses the watershed between Gârboveta and one of its affluents, returning on Gârboveta course. Making a loop detour in order to cross the area with Gârboveta springs, it surrounds from south-east to north-west the northern part of Țăpâria Hill (with an altitude of about 370 m). Then it continues the descending towards Siret river, in the basin of which it just entered. With large loops it goes between the springs areas of the Vulpăşeşti and Pârâul Glodos streams, and then follows Sâgniţa course. It crosses the Siret, and then, after 9 km, it is in the north of Roman city, where it makes the conjuncture with the railway from the Siret Valley.

II. HISTORICAL ASPECTS

Comparing with other European countries, the railways development in Romania was delayed. In 1862, in the opening of the United Principalities meeting, Mihail Kogălniceanu said that the Moldavian deputies came to Bucharest with the ox-drawn wagon in a 15-days journey, and one of the dangers which they were exposed to was that they could be attacked by wolves (Petcușescu, 1923). In Moldavia, the working at the railways construction started in 1868 at Roman – Bacău, Tecuci – Bărlad, Roman – Burdujeni and Paşcani – Iaşi lines (Ignat, 1989). Buhăieşti – Roman railway was included in a big investment programme, initiated by Al. Cottescu, the manager of the Romanian Railways at the moment. For this programme, in 1914 it was necessary an intern loan of about 480 milions gold lei. In this programme were also included Bucureşti – Roşiori – Craiova, Făurei – Tecuci, Paşcani – Târgu Neamţ, Pantelimon – Urziceni – Făurei, Moroieni – Sinaia and Zimnicea – Zimnicea Port lines (Fedeleş Magdalena, 2002).

Detailed information about the construction years of this railway are included in an article regarding the construction of the Romanian railways between the two world wars (Turnock, 2004). We found out that the work at this line started from two directions: from Buhăieşti and from Roman. Buhăieşti – Băceşti sector was completed in 1915. Even if the finalization of the work at this route became a priority since the government of the country was retreating to Iaşi because of the war, it seems like the project has been abandoned. After the war, in 1917, the construction work started at Roman – Băceşti sector. În 1921 the work has been completed, by the construction of the 45 km between Roman and Băceşti and by making the junction with the sector which was already constructed. This railway contributed at the traffic facilitation on Moldavian lines, because the railways were simple at that moment, and the traffic was made in clockwise on direction Iaşi – Bărlad – Tecuci – Mărăşeşti – Bacău – Roman – Paşcani – Iaşi.

The memory of Dumeşti commune inhabitants keeps the belief that the construction of this railway was impelled by Constantin Prezan marshal. On May 28, 1897, Prezan, royal adjutant of Ferdinand Prince at that moment, together with his wife Olga, bought Schinetea estate (in Dumeşti commune) from an attorney of Iaşi (Lefter coord., 2006). The marshal has retired at Schinetea after the First World War was ended. In the period in which he leaved at Schinetea, he rigorously administrated the estate, he improved the mansion, he planned access roads, he involved himself in the community life by supporting the churches and monasteries and, probably, by supporting the construction of this railway, very necessary for the local inhabitants. In marshal honour, in 2007, with the occasion of the manifestation „Honour to the Marshal”, the name of the railway station
Băcești was change in Constantin Prezan Marchal. This station serves the inhabitants from Băcești commune, western part of Dumesti village and Schineta village.

The railways had an important role during the First World War by providing troops and ammunition transport especially for Mărăști and Mărășești battles. Roman-Buhăiești railway had also a contribution, not necessarily by troops traffic but rather as a storage line for tracks with different loads. As a proof for this are the memories of Queen Mary, who, in the notes of 23 January, 1917, wrote: „I want him [it is about Norton Griffith] to help me to unblock some tracks loaded with dismountable huts, which are needed for Jean Cantacuzino, to start the disinfection. These tracks are blocked in a small railway station named Rafaila, and in front of them there are 22 trains!” (page 126, volume III).

In a journalistic commemorative documentary concerning 1917 military cemeteries from Vaslui county (Zahariuc, 2008) aspects regarding the railways role in the First World War are presented. Some stations have been used for military camps. As example, in Buhăiești station, the troops of Făurei Subsistence Repository were sheltered. But most of the exemplifications from this source are referring to the fact that many soldiers died in the trains. Actually, the frequently used expression „death trains” reflects precisely this aspect. According to the cited source, in a track from Negrești station there have been found six soldiers, frosted to death. In the stationary tracks from Rafaila station, 75 young soldiers, 18-20 years old, have been found death. They have been abandoned by the other soldiers and their commanders because of the epidemic disease fear.

III. WORKS OF ART, TRAFFIC AND RAILWAY STATIONS

Considering the relatively higher fragmentation of the relief, the construction of the railway involved the building of specific works of art: bridges and footbridges. According to the information from Iași Regional, on this railway are built 86 works of art. Among these, 62 are footbridges, having an opening below 5 m, and 24 are bridges. There are two types of bridges: 10 small bridges, with an opening of about 5-20 m, and 14 middle bridges, with an opening of about 21-50 m. The big number of the footbridges is a consequence of the fact that the railway crosse a relatively great number of small affluents of Bârlad, Gârboveta and Săgnița. The majority of bridges were built in 1910. In other years were constructed one or two bridges, only in 1919 and 1943 were built 6, respectively 8 bridges. After 1910, until the end of the First World War, no bridge or footbridge was built. After 1994, because of the lack of financial resources, the building of new bridges was stopped. These type of construction are needed, because there are areas where, during the abundant rainfall, torrents are formed and they are causing problems to the embankment.

As building materials, at the first railway bridges in our country, wood was firstly used, followed by bricks and stones. In a natural evolution, after that it was used concrete – the first concrete bridge in our country was built at Azuga, and metal – the first metal bridge was built at Slatina (Ignat, 1989). From the same source we found out that the Siret bridge was firstly built from wood. These days, all the bridges/footbridges have concrete foundation as understructure. The bridges suprastructure is made from diverse materials: beams with iron bars, flagstone from reinforced concrete, rails packages, stone bolts, beams with full heart etc.

Considering the people transport, on this route these days circulates two passenger trains (6411 and 6413), tour-retour, with second class carriage.
In 2008, the total traffic (passengers and marchandises), was about 0.26 millions brute tones/km. The dates are showing a diminution of the traffic after 1989. One of the causes is represented by the diminution of the marchandises traffic, a direct consequence of the low industrialization level and economical regress specific for the entire country, and especially for Bârladului Plateau. Moreover, the passengers traffic also decreased, as a consequence of the road traffic development. Not only the number of cars has increased, but also many commercial firms of public transport appeared. Local people can choose now the nearest transport mode. Untill 1989 the buses number for public transport in the west-central part of the Moldavian Central Plateau was smaller comparing to the present, and the inhabitants were forced to cover long distances to get to railway stations. Even if the costs for railway transport are smaller comparing to the road transport, the travels with the trains are more time-consuming comparing with the cars. Thus, the continuous time crise of the peoples in the contemporary society has its word even in a predominant rural and underdeveloped area, as it is one crossed by Buhăiești – Roman railway.

The maximum speed for circulation is 80 km/h for passenger trains and 60 km/h for merchandise trains. Because of the problems appeared at the embankment these days the maximum speed is reduced at 50 km/h for both passengers and merchandise trains. According to the 2004 CFR reports, the mean value of the speed (including the time in stations) is about 34.3 km/h for passenger trains.

The railway stations Between Buhăiești and Roman are: Negrești – Vaslui, Rafaila, Dumești, Marshal Constantin Prezan (in Vaslui county), Suhuleț, Dașa, Piscu Rusului (in Iași county), Stănița, Vulpășești and Sagna (in Neamț county). The economical difficulties caused by the financial losses on this route have led, between others, at the closing of some stations. In present, the railway stations opened for the passengers traffic are commercial halts, where there is a ticket sale service, or just halt station, where tickets are not sold anymore. The change of the station position from commercial halts to halt stations, on one hand ensures the accumulating of some savings because there is no need to sustain jobs of the people who worked in there, but on the other hand it has some disadvantages. By closing the station buildings, practically it was stopped any activity for their maintenance, so in present the buildings are in course of degradation. Also, the other utilities specific for the station are degrading, some of them being already completely destroyed (water sources, benches etc.)

Regarding the stations constructions, there are information that the buildings from Sagna and Vulpășești were constructed at the end of First World War (Doboș coord., 2003). Because of the stations, the railway has its role in people and villages spreading. We found out that in 1918, the building from Dumești station was in an isolated area (Șenchea Natalia, 1943), Valea Mare village extending ulterior in the direction of the station, and these days the station is right near this village. Other villages also extended with predilection towards the railway stations: Băcești, Negrești etc.

VI. ECONOMICAL PROBLEMS, ENVIRONMENT AND SOCIAL-ECONOMIC IMPACT

After the passing to the market economy, because of the financial difficulties, there were questions about the entering of the line in conservation or in private administration. Actually, this railway is considered today as non-interoperable, meaning
that it is a secondary line, with reduced use, uninteresting. Among the objectives of the reorganization programme of the National Company of Railways „C.F.R.” – S.A., there is the privat capital attracting for maintenance and exploitation of the non-interoperable railway network, and the acceleration of the hiring process of the non-interoperable lines.

This railway had an important role in the social and economic development of this area, by emerging from isolation of some villages which had no access to the roads, by sustaining the economical development of Negrești town before 1989 (when here functioned some industrial units which required a cheap way for merchandises transport) and by sustaining the commuting towards Negrești and other developed cities situated at the border or in the surrounding of this area: Roman, Vaslui, Iași. The construction of the railway did not bring major changes upon the relief. We consider that the excavation and embankment have changed the relief in a small manner, almost negligible. The vegetation also suffered interventions, deforestations being necessary. But, because this was necessary strictly for the railway corridor, we consider that the impact upon vegetation is negligible. We can consider that by the plantation of the protective forest belts in order to protect the railway stations, some losses caused by deforestation have been compensated.

The negative impact upon the natural environment is represented almost exclusively by landslides. These are causing problems at the crossing of the watershed between Bârlad and Siret basins, between Dagâţa – Piscu Rusului – Stăniţa stations, areas with the highest altitudes of the entire route. Predominance of clayey facies of the bassarabian deposits, deforestations for the railway construction, insufficient extension of the drainage network, vibrations produced by the railway traffic, all these have favoured the landslide appearance.

At the railway construction, in many areas stabilization of the slopes along the line were necessary. Because of the landslides, during the time, some of this works were redimensioned and improved, but also other areas were this type of works are necessary appeared. The consolidation works of the slopes consists in counter benches construction, using groups of Benotto piles, gabions, pre-tensioning tie bars etc. Also, the drainage can’t be neglected, for example in Piscu Rusului area in 1986-1987 period were installed drains on an area of about 300 m long, and in 1997-1999 period on 200 m.

In some areas, the initial embankment was made from local materials (loessoid deposits). This is the case of a sector long of about 100 m, at the entrance in Siret basin. Because it did not have stability, this embankment degraded, so in 1917-1918 period it was necessary to be replaced with ballast embankments, much more resisting, which ulterior caused no problems.

In some cases the embankment was so degraded that it was necessary the construction of a new line, practically the railway was reconstructed at a few meters distance. Works like this were necessary near Piscu Rusului station, in 1988-1989 period, when a new line sector was constructed by 100 m long. The same situation is found at few kilometers distance, where 200 m of new line were constructed.

We consider that by taking the proper measures and by maintenance of the present construction, the negative impact caused by the landslides could be considerable diminished.

VII. CONCLUSIONS

Even if for the Moldavian Plateau Buhăiești – Roman railway has a secondary role, for the area where it is situated, it had and it has an important role. The historical value, the contribution to the emerging from isolation, the sustaining of the commuting
towards Negrești, Vaslui, Roman, Iași, the fact that it represented the major transport mode before 1989, all these represent few aspects that are showing the role of this railway.

Because the embankment is high, the traffic was not affected by floods in the past, nor by snowing. Often there are problems at the embankment because of the torrents formed after abundant precipitations. In some areas, the embankment was affected by landslides. The most affected area is situated at the watershed between Bârlad and Siret basins. Considering that the problems caused by the landslides have necessitated embankment stabilization, slopes consolidation, increasing the drains frequency and even line moving on some sectors, we conclude that the choosing of the best route can be put into discussion.

Because the lack of financial resources represents the major impediment in the rehabilitation of embankment and stations, and the improving of the passenger transport conditions is an indisputable necessity, we consider that the solution of renting the line to a private operator represents a real possibility to improve the transport condition and the railway. Without considering that all the problems regarding this railway have been approached, the present article represents a start in highlighting of some aspect related to the local historical value, economic role and environment impact of this railway.

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