



Draft REPORT of the First International Workshop VUSPLAN

The first International workshop "VUSPLAN" (Vulnerability assessment of Stara Planina) was held in organisation of Serbian Academy of Science and Art and Bulgarian Academy of Science. The workshop took place at Stara Planina Mountain and Pirot Town in the period 20-22.08.2007. The topic of the workshop was "Karst and karst groundwater in the boundary region between Bulgaria and Serbia at Western Balkan"

Workshop participants from Serbian side were scientists from Department of hydrogeology at the Faculty of Mining and Geology at the University of Belgrade:

Prof. Dr Zoran Stevanović,
Mr Igor Jemcov,
Mr Saša Milanović and
Vladimir Živanović.

Workshop participants from Bulgarian side were scientists from Geology Institute at Bulgarian Academy of Science in Sofia:

Prof. Dr Aleksej Benderev,
Prof. Dr Stefan Shanov,
Mr Boyka Mihailova and
Mr Konstantin Kostov.

The meeting was held under support of Pirot Borough and the following sponsors: Pirot waterworks, Civil Engineering Fund, Pirot Hydro Plant and media sponsors P-Kanal (Pirot TV) and marketing agency Background.

The programme of the workshop was:

Sunday, 19.08.2007.

Arrival of the participants and preparatory meeting.

Monday, 20.08.2007.

13:00 - Opening ceremony

Pirot Borough President Mr Vladan Vasić, general director of Pirot Hydro Plant Dragan Stevčić and Pirot waterworks director were present at the opening ceremony. The meeting was opened by introductory speech by Pirot Borough President Mr Vladan Vasić.

Introductory speeches were also provided by Prof. Dr Zoran Stevanović and Prof. Dr Aleksej Benderev, the leaders of the scientific teams at Serbian and Bulgarian sides.

They both expressed gratefulness to the organizers for significant help in organizing the workshop. The idea of mutual project on groundwater of Stara Planina Mountain and transboundary groundwater bodies has been present for a long period. This is the first project dealing with transboundary aquifers in this part of the Balkans. Groundwaters do not know about boundaries and so this is an extraordinary opportunity to summarize the characteristics of the groundwater bodies, which is mutual interest for the both countries.

13:30 - I Session

At the first working session Mr D. Milanović presented the need for creating the Geology Environment and Groundwater Vulnerability map of Stara Planina Mountain in GIS environment.

16:30 - 19:00 II and III Session

At II and III session Prof. Dr Zoran Stevanović and Prof. Dr Aleksej Benderev presented the geological and hydrogeological maps and settings of Stara Planina Mountain from both sides of the National boundary.

V. Živanović presented different methodologies for creating groundwater vulnerability maps with special attention dedicated to EPIK method. The idea of vulnerability assessment of groundwaters and natural environment of Stara Planina Mountain was presented. Beside that, the research area for the future transboundary investigation was mainly defined. The research area covers the area where the groundwater bodies stretch on both sides of the National boundary.

Tuesday, 21.08.2007. - Wednesday, 22.08.2007.

The second and the third day of the workshop were reserved for the field trip as a scientific excursion. Colleagues from Bulgaria had an opportunity to meet the geological and hydrogeological settings of the research area and to discuss specific geological and hydrogeological problems.

Excursion route included the following features:

1. Vladikina ploča
2. Dojkinci - swallowholes
3. Jelovičko Vrelo spring
4. Slavinjsko grlo
5. International river Visočica
6. The biggest karst polje in Serbia - Odrovačko polje
7. Groundwater source Protopopinci for watersupplying of the Town of Dimitrovgrad
8. Smilovsko Jezero Lake
9. Groundwater source Gradište for watersupplying of Pirot
10. Groundwater source Krupac for watersupplying of Pirot
11. Zavojsko Jezero Lake

Wednesday, 22.08.2007. - 11:00

Closing ceremony was held in Pirot Municipal Building where the main results were summarized and main conclusions of the workshop were adopted. The most important of them are:

- The importance of transboundary aquifers, especially in the boundary region of Stara Planina Mountain
- The importance of groundwater as a main source for watersupplying of towns and villages on the territory of Stara Planina and its wider area, as well as the fact that groundwaters are not known, researched and used at the adequate level
- The region of Stara Planina is characterized by wide spreading of karst aquifers with their own nature especially when it comes to defining the catchment area, groundwater distribution in the international boundary region, their usage and of course their protection.

As a result of the workshop, two main topics which have to be guide for future scientific cooperation were defined as a mutual interest for Serbia and Bulgaria:

- **Groundwater budget and groundwater bodies**
- **Groundwater vulnerability assessment of the aquifer and geological environment**

One of the conclusions was also that this kind of project requires financial funds which can be gained through International organizations and the European Union.

The workshop is just the first step in the established cooperation. There is a need for cooperation expanding and information exchange, which will result in many practical solutions for better management of natural goods of Stara Planina Mountain.



Workshop at Stara Planina



Excursion: Grlo gorge, Stara Planina



Excursion: Dojkinci area, Stara Planina