



# NEWSLETTER



## EU.WATER

### “Transnational integrated management of water resources in agriculture for the European WATER emergency control”

#### PARTICIPANTS IN THE PROJECT

Institute of Agricultural Economics, Belgrade on 25 November 2009. signed a contract that has become part of team on the project EU.WATER - *Transnational integrated management of water resources in agriculture for the European WATER emergency control*“. The duration of the project is three years, from 2010. to 2013. On the project are involved twelve prominent institutions from eight countries of Southeastern Europe. These are:

1. Province of Ferrara, Italy, Lead Partner and project coordinator
2. Province of Rovigo, Italy
3. Trans – Tiszanian Inspectorate for Environment, Nature and Water, Hungary
4. University of debrecen centre for Environmental Management and Policy, Hungary
5. Region of Western Macecdonia, Greece
6. Aristotle University of Thessaloniki, Greece
7. Ministry of Agriculture, Forestry and Rural Development, Romania
8. National Institute for Research and Development in Soil Science, Agricultural Chemistry and Environment, Romania
9. Agency for Rural development of Istra Ltd. Pazin, Croatia
10. Institute of Agricultural Economics, Belgrade, Serbia
11. Odessa National Polytechnic University, Ukraine
12. Ialoveni Rayon Council, Repulic of Moldova



#### PARTICIPATION OF THE PREVIOUS CONFERENCE

So far, representatives from IAE have participated in two, out of three conferences, that held since the beginning of the project.

Hosted of the first Conference „Kick-off meeting“ which held on 06<sup>th</sup> July 2009. was the Province of Ferrara, Italy. At the conference to the project partners were presented:

- Aims and framework of EU.WATER project
- Project status, activities and tasks
- Management methods which will be implement administrative aspects and common tools.
- Administrative and technical responsibilities of the partners.
- Specify the activities for the begining of the project and their verification.
- Partners target areas.

*The second conference* held in Thessaloniki, Greece between 12-13 November 2009. Topics of the conference were:

- Presentation of the questionnaire, a common methodology for the preparation of GIS maps of vulnerability and guidelines for setting up databases (Work package 3.)
- Communication and dissemination of experience
- Presentation of main road of Action plan through project brochure (draft version) website (Work package 2),
- Project management - established of a joint Steering Committee, reporting procedures and technical and financial obligations (Work package 1).
- Negotiation of project activities - bilateral meeting.

Host the *third conference* “2<sup>nd</sup> Scientific and Technical forum” was the Institute of Agricultural Economics from Belgrade, Serbia. The conference held at the Hotel “Palace” between of 22-23. April 2010. The Conference divided into two sessions. In the first and the main session participants discussed about the current activities on the project. These were:

- *ON-SITE* communication strategy,
- Presentation of local communication plans,
- Presentation of first international bulletin,
- Financial report,
- Explanation contract procedures among the leading partners,
- Upcoming activities,
- The first steps toward defining transnational strategy for the integrated water management in agriculture,

- Also, held a round table on the exchange of ideas between partners that have since emerged in connection with the project activities.

In another work GIS expert session, which took place at the same time, was carried out about:

- Recap of procedure for fulfillment of questionnaires about the all necessary data for the regional profile,
- Implementation web-GIS application
- Presentation of procedures for the preparation of vulnerability maps
- Exchange experiences and opinions of the GIS experts from the project countries - partners in the project.

### PROJECT TARGET AREA AND PREVIOUS PROJECT ACTIVITIES IN SERBIA

The Institute of Agricultural Economics from Belgrade is determined target the area of the project activities in Serbia - the City of Pančevo. The reasons are numerous:

1. Pančevo has a very respectable resources for agricultural development,
2. Territory of Pančevo extends on two European rivers - Danube and Tamiš, which provided excellent conditions for the use of water in agricultural production and irrigation.
3. In Pančevo is located in the largest industrial zone in the Republic of Serbia.
4. On the territory of Pančevo City has happened frequent environmental incidents for many years so far.
5. There are excellent conditions for the application of scientific and technological methods and measures in the field.

From all the above, as partner in the project, the Institute of Agricultural Economics from Belgrade selected PDS Institute „TAMIS“ from Pančevo.

After third conference, which held in Belgrade between 23 - 24 April 2010, Institute of Agricultural Economics, Belgrade and Institute „TAMIS“, Pančevo, had press conference jointly in aim to promote project activities which would be realized on the territory of the Pančevo City. At the press conference were present many representatives from local TV, radio and daily press, which in their report informed local auditorium about planned activities which would be implemented on the territory of Pančevo City. In addition to media representatives at the conference attended local officials from the Municipality, Chamber of Commerce, Waterworks, representatives from Agricultural Cooperatives and from 12 Local Communities.

### RESULTS OF SAMPLING AND ANALYSIS SOIL AND WATER QUALITY IN THE TERRITORY OF THE PANČEVO CITY

It has been carried out per one research for quality of soil and water, so far.

#### Results of soil quality

Soil Sample	Description	RESEARCH CHARACTERISTICS					
		Content of Total N		Content of NO <sub>3</sub> <sup>-</sup>		Content of NH <sub>4</sub> <sup>+</sup>	
		%		mg/kg		mg/kg	
		S	RV	S	RV	S	RV
1/1 (0-30 cm)	Soil - "Road Pančevo - Vršac" (7 km far from Pančevo) point 49. N-445601, 2" E 0204315, 8" n.v 83 m	0.22	-	47.8	-	6.19	-
1/2 (30-60 cm)	Soil - "Road Pančevo - Vršac" (7 km far from Pančevo) point 49. N-445601, 2" E 0204315, 8" n.v 83 m	0.17	-	23.0	-	9.13	-
1/3 (60-90 cm)	Soil - "Road Pančevo - Vršac" (7 km far from Pančevo) point 49. N-445601, 2" E 0204315, 8" n.v 83 m	0.16	-	17.7	-	8.89	-

- S-Sample
- RV-reference value

Research showed that in soil established a significantly higher content of nitrate nitrogen in relation to the ammoniac, which indicates that at the time of sampling has not been a process of mineralization. Also, most content of nitrate nitrogen is in the surface layer (the first depth, 0-30 cm). The results show that the sampling carried out after the entry of nitrogen into the soil before his cohesion in deeper layers. A very important characteristic of nitrogen is its solubility and mobility in the soil, and therefore are its great loss. Part is lost in the form of gaseous ammonia, but most of the nitrate lost in the form of evaporation of

water. Nitrogen flushing is specific to different types of soil, for different plant species and depends on temperature and rainfall.

#### Results of water quality

Water Sample	Description	RESEARCH CHARACTERISTICS					
		Content NO <sub>2</sub> <sup>-</sup>		Content NO <sub>3</sub> <sup>-</sup>		Content NH <sub>4</sub> <sup>+</sup>	
		mg/l		mg/l		mg/l	
		S	RV	S	RV	S	RV
1/1	Water - "Omoljički rit" point 48 N-44°43,26,8'' E-020 45,16,1'' n.v 68 m	0.001	max 0.05 (as N)	0.65	max 10 (as N)	0.29	max 1.0

- S-Sample
- RV-reference value

Water research leading to the current *Regulations on Safety and Quality of Water in Serbia* is shown in table, the maximum quantity of dangerous substances in water, expressed in milligrams in a liter of water (mg/l) by class specific rules on classification of water\* are:

No.	Danger substance	Quantity (mg/l)	
		Classes	
		I & II	III & IV
1.	Ammoniac	0,1	0,5
2.	Ammonium ion	1,0	10,0
3.	Nitrate (as N)	10,0	15,0
4.	Nitrite (as N)	0,05	0,5

If we compare the values obtained by analysis of the parameters (content of ammonia, nitrate and ammonium nitrite nitrogen) with the limit values for the parameters set out in the REGULATIONS FOR HYGIENIC DRINKING WATER (Official Gazette of FRY, No. 42/98 and 44/99) we can conclude that the observed sample in this regard is correct. The said Regulation provides value as a limit:

MAXIMUM ALLOWABLE CONCENTRATIONS OF INORGANIC SUBSTANCES IN DRINKING WATER (mg/l)	
Title and mark of chemical substance	Maximum allowable concentrations - regular opportunities
Amoniak (NH <sub>3</sub> )	0,1*
Nitrate (NO <sub>3</sub> )	50.0
Nitrite (NO <sub>2</sub> )	0.03**

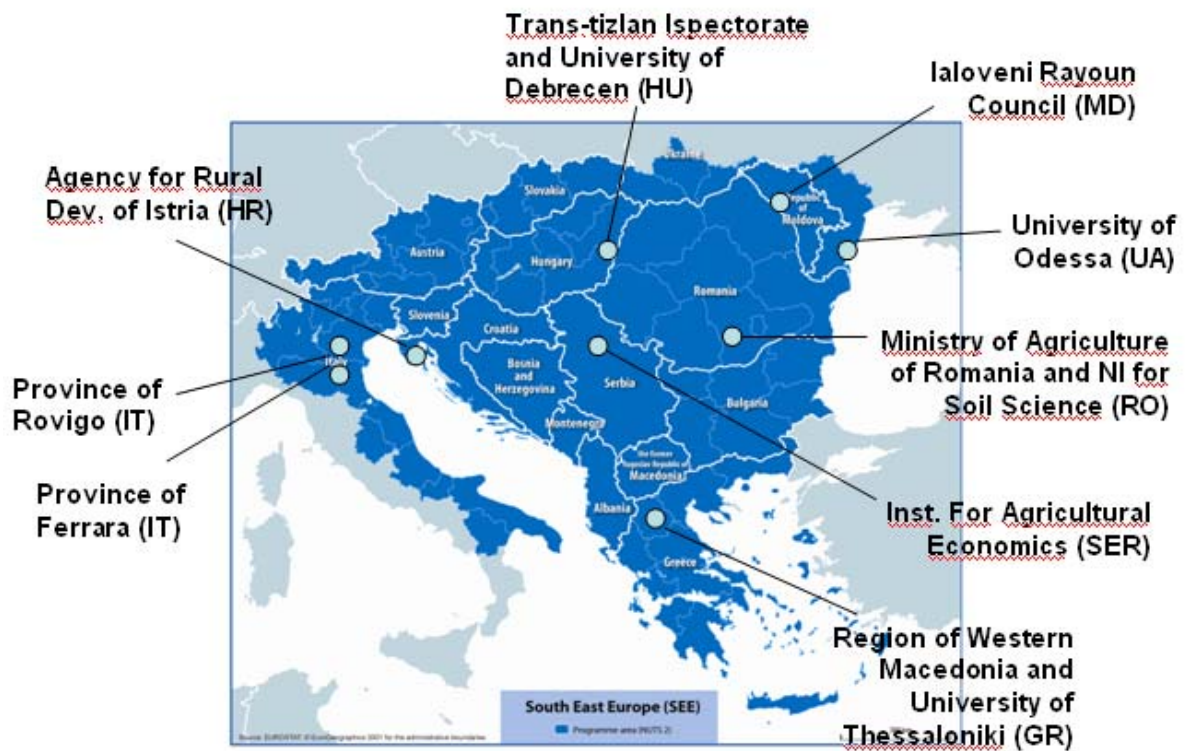
\* For waterworks between 5.000 ES to 1 mg/l.  
 \*\* It is believed that water is correct in the case that in 20% of measurements that are not consecutive throughout the year value of the concentration reaches 0.1 mg /l , the frequency measurement by the current Regulations

Institute of Agricultural Economics from Belgrade at the end of the first project year (2010) will publish a study in which it will be analyzing in detail the current status and quality of soil and water. Also, in October 2010, it beginning a cycle of lectures aimed at raising the level of knowledge on the application of chemical products and fertilizers used in agriculture as well as raise awareness and behavior of farmers and other SMEs in the pollution of the environment. After the training activities carried out in the third year of the project, 2013, determine the condition and quality of soil and water and also will evaluate the success of implemented actions to improve the knowledge of stakeholders.



#### TERRITORY OF PANČEVO CITY





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