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**Ministry for the Environment
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ICARO

ECONOMIC COMMISSION FOR EUROPE

**CONFERENCE OF THE PARTIES
TO THE CONVENTION ON THE TRANSBOUNDARY
EFFECTS OF INDUSTRIAL ACCIDENTS**

REPORT OF THE IN-FIELD EXERCISE AND WORKSHOP

Second phase of the project for Bulgaria, Romania and Serbia on joint management of transboundary emergencies from spills of hazardous substance into the Danube River

Introduction

1. The in-field exercise and workshop, second phase of the project for Bulgaria, Romania and Serbia on joint management of transboundary emergencies from spills of hazardous substance into the Danube River, were held respectively on 24 and 25 September 2009. The exercise had been initiated at Prahovo, Serbia and was performed along the Danube River until Vidin, Bulgaria. The workshop was held in Negotin, Serbia, hosted by the Ministry of Environment and Spatial Planning of Serbia.
2. The leading authorities for conducting the exercise were (a) Ministry of Emergency Situations from Bulgaria, (b) Mehedinti County Inspectorate for Emergency Situations (IJSU) from Romania, and (c) Ministry of Interior from Serbia.
3. The project – the in-field exercise and the workshop – were held within the framework of the implementation phase of the Assistance Programme for Eastern Europe, Caucasus and Central Asia (EECCA) and South-Eastern Europe (SEE) countries pursuant to a decision made by the Conference of the Parties at its fifth meeting (Geneva, 25–27 November 2008; ECE/CP.TEIA/19, paras. 50 (c)(iii) and 78 (i)).
4. The Ministry of Environment, Land and Sea of Italy (MELS) provided funds to support the project's implementation.

I. OBJECTIVES

5. The objectives of the exercise were to test the emergency procedures for notification, emergency response and modelling, also in respect to cross-border cooperation, in the three countries and to collect data for analysis.

6. The objectives of the workshop were to discuss the data collected, identify ineffective procedures and start preparing action plans/blueprints for further optimization, including cross-border coordination, of the crisis management.

II. PARTICIPATION

7. The representatives of the following authorities from the project countries participated to the in-field exercise and the workshop: Bulgaria – the Ministry of Environment and Water, and the Ministry of Emergency Situations; Romania – Ministry of Environment, the General Inspectorate for Emergency Situations and its County's Inspectorate, the National Environment Protection Agency and its local branches, the Romanian Waters National Administration and its regional and local branches; Serbia – the Ministry of Environment and Spatial Planning, the Ministry of Interior, the Ministry of Defense, the Ministry of Agriculture, Forestry and Water Management, the Hydrometeorological Service, PWC Srbijavode, the Institute for Republic Health, the Municipality of Negotin.

8. The exercise and the workshop were supported by experts from ICARO – Italian advisory company specialised in industrial safety, the Dutch Ministry of Housing, Spatial Planning and Environment, the Polish State Fire Service, the Croatian National Protection and Rescue Directorate, the International Commission for the Protection of the Danube River (ICPDR) and by the secretariat of the Convention.

III. CONDUCT OF THE IN-FIELD EXERCISE

9. The in-field exercise was conducted according to the scenario agreed at the technical workshop (first phase of the project, Drobeta-Turin Severin, Romania, 16-18 June 2009). It started at 9 a.m. when wood chips to imitate a gas oil spill were thrown into the river at the Prahovo site. At the same time the operator of the site activated the siren and informed the local authorities at Negotin about the emergency.

10. While the local authorities in Serbia were taking the necessary action in preparation for response including relevant notification according to the internal procedures, the movement of the wood chips was monitored by experts from a boat. It was recorded with the GPS device between Prahovo site and the town of Gruia (Romania), and from there towards the border between Serbia and Bulgaria. This movement is presented on the maps contained in annex I to this report.

11. During the exercise each country as well as the exercise evaluators were collecting data related to: (a) national staff capacities in operating notification systems: UNECE Industrial Accidents Notification (IAN) System, and ICPDR Accident Emergency Warning System (AEWS) with national Principal International Alert Centre's (PIAC's), (b) selection of the location for the response actions, (c) communication between the response forces and the crisis management staff, (d) degree of preparedness of emergency equipment and its effective application by response forces personnel, and (e) use of modelling tools in assessing the movement of the spill.

12. The data collected was presented and discussed in the workshop.

IV. WORKSHOP AND ITS PROGRAMME

13. The workshop was opened by Mr. Aleksandar Vesic, Assistant Minister of Environment and Spatial Planning (MESP) of Serbia. The participants were also addressed by Ms. Suzana Boranovic, Adviser in the Department for Risk Management of MESP, Mr. Bruno Frattini on behalf of the Ministry of Environment, Land and Sea of Italy and Mr. Lukasz Wyrowski from the UNECE secretariat. All speakers appreciated the joint efforts of the three countries aimed at improving the crisis management and the commitment and engagement demonstrated during the exercise.

14. After the opening, project countries' experts reported during the session I on the actions taken during the exercise with respect to the work of notification, emergency management and modelling units.

15. The following was reported on notification:

- Phone notification functioned well between local and national levels in Serbia;
- Internal notification functioned well in Romania (response was started following a notification on emergency from border police), the international notification, in particular using IAN System, was rather weak, the messages were only transmitted without any evaluation by Romanian point of contact;
- Preparation of early warning report took relatively long time for Serbia;
- Early warning notification with IAN System was sent by Serbia without indicating recipients¹, due to which Bulgarian and Romanian points of contact missed it;
- Early warning with PIAC 13 (Serbia) was sent successfully via internet to Bulgaria and Romania and was confirmed by both recipient countries, sms did not work, ICPDR did not receive any message via PIAC;
- Romania did not send any message to Bulgaria using PIAC despite such a requirement;
- The information reports sent with IAN System were received successfully by Bulgaria and Romania; but the reports missed information on type of emergency, and some other input was not clear;
- Bulgarian point of contact tried to reach by phone Serbian point of contact to clarify on some inputs, but did not succeed;

16. With respect to emergency management, it was reported that:

- Cooperation between each country response forces and their border policy functioned well (in Romania the boat of border police was used to help in installing floating barrier);

¹ The web-based application under the UNECE IAN System, in principle, does not allow sending any reports if the recipients were not selected. The reasons due to which such situation occurred were under investigation at the time of preparation of this report.

- The operation section at Danube in Serbia was not particularly good for containing the simulated oil spill, although it was a good place for the response team to access the river from the bank;
- Equipment used was not very efficient (in Romania floating barrier was difficult to maneuver, skimmers were not too useful because an appropriate tank for collecting oil was lacking)
- The response forces personnel followed on the procedures, team leaders performed well, but no back up/replacement teams would have been available for major accidents

17. As far as modelling was concerned, the countries reported:

- To have used ICPDR's Danube Basin Alarm Model (DBAM) software,
- To have missed some data to be inserted into the model which should allow better predication of the movement of spill (in Serbia the necessary hydrological input data for the model (real time data) were downloaded from VITUKI web site www.hydroinfo.hu. For optimal accuracy of model, it was necessary to have accurate real time hydrological data and hydrology and meteorology forecasts for the full duration of the event and for area downstream from Prahovo. Due to unavailability of this data, the results of pollution modelling of the water body along the Danube from Prahovo to border with Bulgaria, were incorrect);
- Bulgaria informed that the modelling rather misguided in their case.

18. Following the reported actions, and in particular the shortcomings identified during the exercise, the countries experts worked in notification, emergency management and modelling groups during the session II, and supported by exercise evaluators discussed on changes for implementation needed for improving the crisis management. These suggested changes are contained in the conclusions.

V. CONCLUSIONS

19. The notification group agreed that there is a need for introducing as soon as possible improvements to the international communication with the use of IAN and AEWS-PIAC systems. It concluded that:

- National exercises/training are needed for points of contact's staff on understanding the content of the reports;
- Staff of points of contact in each of the countries needs to be trained to be able to complete in relatively short time any of the notification reports with clear, easily understood sentences;
- Standard, agreed phrases could be helpful in completing the reports and thus should be elaborated;
- Analytical and/or top-table exercises are needed to work out an effective communication for real situations; such exercises would be most desirable, at the beginning, if points of contact staff of all three countries could perform the top-table exercises being in same location, and having the possibility to exchange feedback face-to-face after each round of notification; next step could be analytical exercises conducted at a regular basis from capitals;

- Web-based system allowing asking questions to the reports received would be desirable, thus the countries should present this conclusion at the consultation for points of contact within the UNECE IAN System for further discussion.

20. In addition, the countries should also explore on possibilities to establish working communication/notification between authorities responsible for emergency response at local level. This should be considered a mid-term objective and should include the agreement of means of communication.

21. The emergency management group concluded that the exercise clearly showed lack of any joint management. Each of the countries was taking response actions based on their own assessment of the situation without any coordination. Therefore the countries have to take an attempt to change this situation and work on short-, mid- and long term solution.

22. As for the short term solution the countries agreed to:

- Nominate focal points at local level for joint management of emergencies and using the available guidelines for environmental emergencies (UNEP-OCHA), look for strengthening the transboundary cooperation at the local level, especially where no bilateral agreements exist.

- Consider establishing a joint working group for improving the joint management, thus each country should nominate its representatives to the group;

- Exchange offsite contingency plans and to harmonize these plans by the working group; in case the plans are yet non existing, they should be developed on country basis based, among others, on the data collected in the exercise;

- Discuss splitting the Danube River between Prahovo and Vidin into operation section for response, based on predicted movement of spills, so that the response would be most effective;

- Develop possible scenarios for emergencies and optimize the emergency preparedness for them; and

- Hold regularly, as far as the resources allow it, exercises to test on changes introduced to the procedures.

23. In the mid term the countries should consider working out and signing agreements allowing the response forces to cross the border in case of emergency situation what would open the possibility to introduce joint response. This should also lead to building joint staff groups for managing emergencies along the Danube's border.

24. As for the long term solution, the countries should look for possibilities to make available for response to oil spills more efficient equipment such as special boats for collecting oils spills. The countries should consider a joint application to potential donors.

25. The modelling group agreed that the use of software modelling should be much enhanced. To this end with regard to DBAM, it is necessary to perform calibration and validation of the model for Danube on the territory of each the three countries. The countries need also to cooperate more and exchange and compare hydrological and meteorological data.

26. In addition the countries requested that a model would be made available to them that differentiate between smaller and major accidents.

27. Based on the conclusions drawn in the thematic groups, each country worked in national groups to consider on its next steps leading to strengthening the crisis management in the transboundary context. Steps such as nomination of focal points, preparation for exchanging of contingency plans, and hydro and meteorological data or planning for top-table exercises were mentioned. These should be included in the blueprints to be developed by each country, the drafts of which should be presented during the project's final workshop.

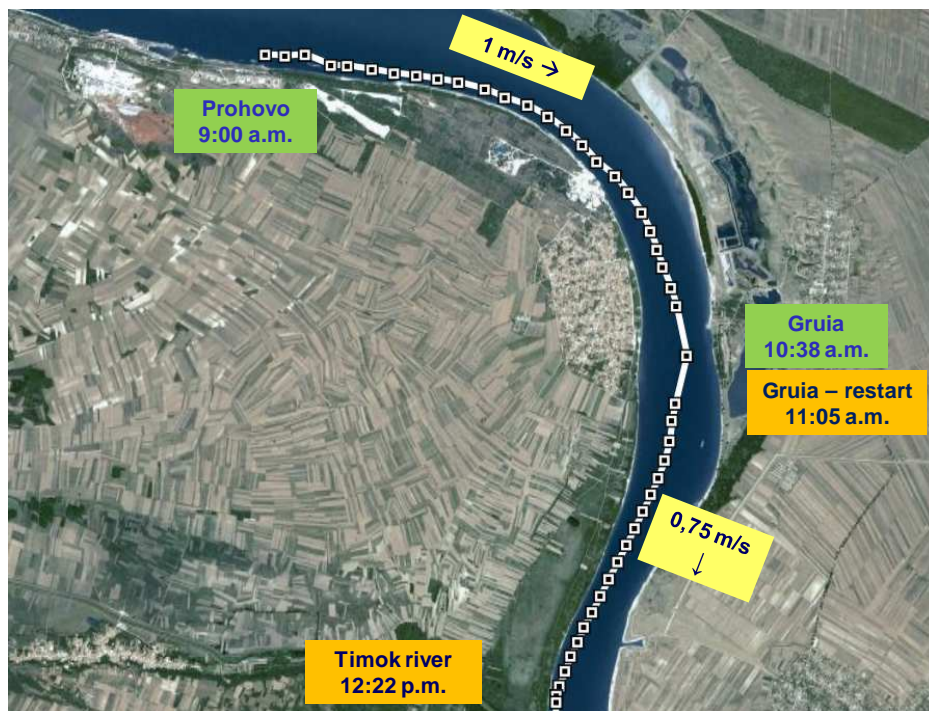
VI. CLOSING

28. The secretariat expressed the appreciation to the Serbian organisers, in particular to Ms. Suzana Boranovic and her team from the MESP for the excellent organisation of the workshop and thanked the participants and experts for their active involvement. He also thanked for the engagement of all three countries' experts in preparing and conducting the exercise. He then invited the countries to continue in this spirit, and make more detailed assessment of data from the exercise and develop the draft blueprints for optimizing the emergency management in the border area.

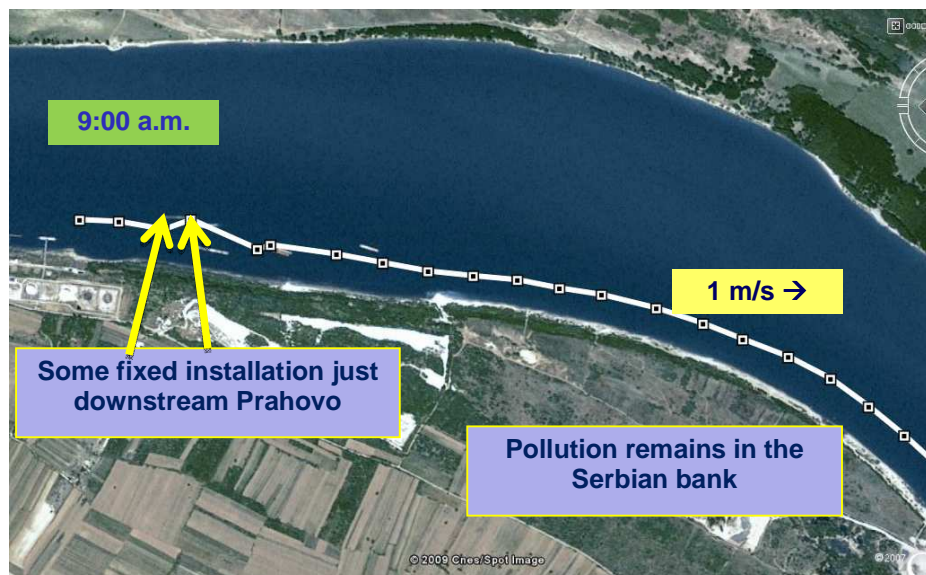
29. Ms. Boranovic thanked the participants for their attention and the experts for their professionalism. She closed the meeting.

Annex I

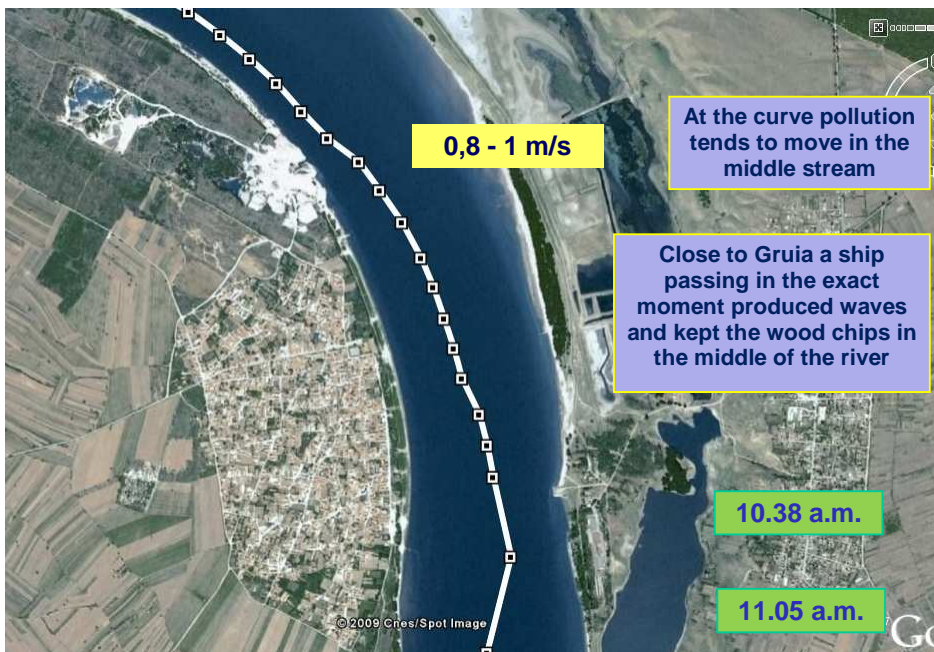
Maps containing GPS recorded movement of the wood chips



Map 1



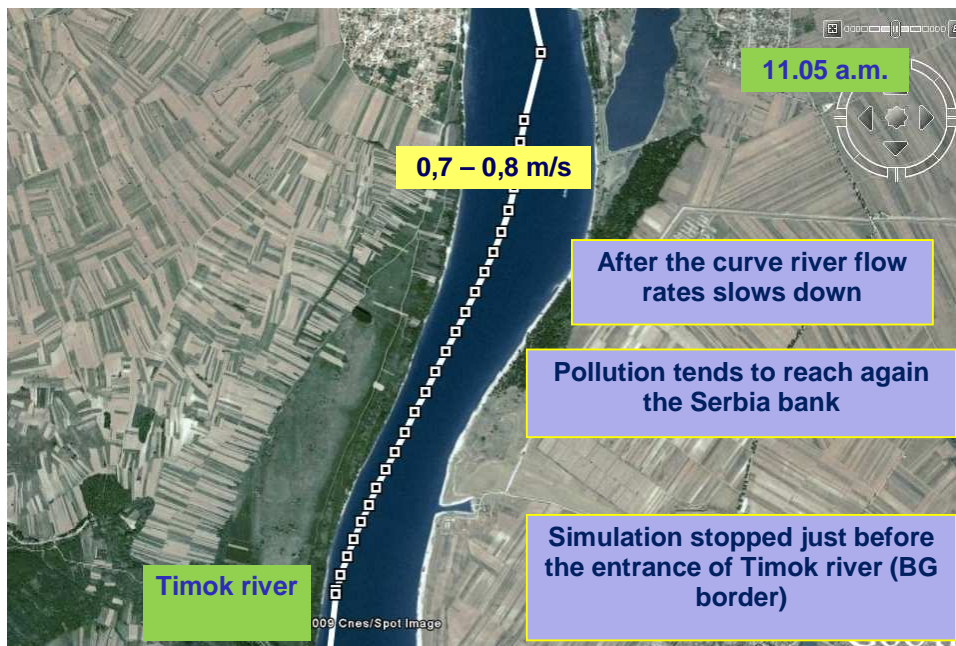
Map 2



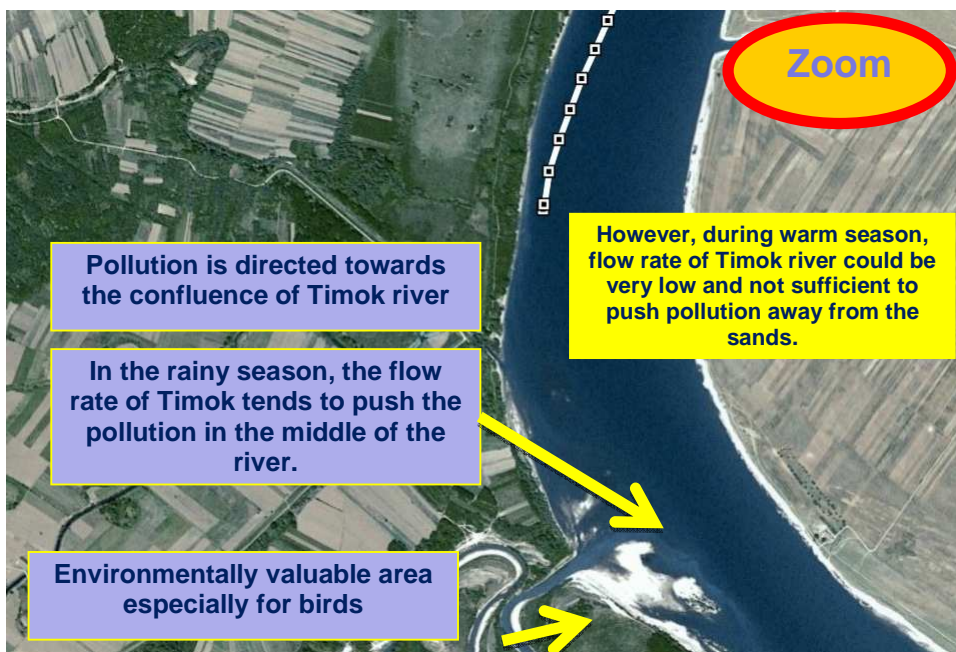
Map 3



Map 4



Map 5



Map 6

Annex II

Programme of the workshop

9:30-10:00

Opening

9:30-9:40

Welcoming statement by Mr. Aleksandar Vesic, Assistant Minister of MESP and Ms. Suzana Boranovic, Department for Risk Management of MESP

9:40-9:50

Welcoming statement by Mr. Lukasz Wyrowski, secretariat

9:50-10:00

Welcoming statement by Mr. Bruno Frattini, ICARO on behalf of the Italian MELS

10:00-13:30

SESSION I – Reporting on the exercise

10:00-10:45

Report from Bulgaria (notification, emergency management, modelling)

10:45-11:30

Report from Romania (notification, emergency management, modelling)

11:30-12:00

Coffee break

12:00 -12:45

Report from Serbia (notification, emergency management, modelling)

12:45-13:30

Discussion

13:30 -15:00

Lunch

15:00-18:20

SESSION II – Further optimization of crisis management

15:00-16:00

Work in groups to discuss optimizing of joint notification, management and modelling

Notification group

Management group

Modelling group

16:00-16:30	Presentation of group work in plenum
16:30-16:50	Coffee break
16:50-17:50	Work in national groups to set a basis for developing national action plans / blueprints
17:50-18:20	Presentations in plenum
18:20-18:30	Wrap-up and closing of the meeting
20:00	Dinner
