

# **UNECE CONVENTION ON THE TRANSBOUNDARY EFFECTS OF INDUSTRIAL ACCIDENTS**

## **MINISTRY OF ENVIRONMENT, LAND AND SEA OF ITALY**

Project under the Assistance Programme

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

## **REPORT ON THE PROJECT**

### **Introduction**

1. The pilot project on joint management of transboundary emergencies from spills of hazardous substance into the Danube River was launched following the request for assistance expressed by Bulgaria, Romania and Serbia for improving their emergency preparedness and through it to strengthen the joint management of emergencies in a transboundary context.
2. The lead in the project was taken by the Italian Ministry of Environment, Land and Sea that pledged experts and financial support towards its implementation. The Bureau of the Conference of the Parties to the Convention approved the project under the Assistance Programme and requested Italy and the secretariat of the Convention on the Transboundary Effects of Industrial Accidents to implement it.
3. This document is the final report of the Danube pilot project in which the reports and minutes of the different phases are combined. This report gives an overview of all the phases. More elaborated and detailed information on the separate phases of the project can be found in reports/minutes of the kick-off, technical workshop and evaluation workshop:
  - TEIA/Danube project/2 - Minutes of the kick-off meeting
  - TEIA/Danube project/5 - Report of the technical workshop
  - TEIA/Danube project/8 - Conclusions of the consultation meeting
  - TEIA/Danube project/9 - Report of the in-field exercise and the evaluation workshop (including maps)

### **Objectives**

4. The objective of the pilot project was to strengthen the effectiveness in organizing emergency preparedness in Bulgaria, Romania and Serbia through further optimizing the emergency procedures, especially in the view of cooperation in a transboundary context.

## **Project phases**

5. The project consisted of four phases:
  - (a) The kick-off meeting initiated the implementation of the project and discussed the involvement of the partner countries.
  - (b) The technical workshop discussed the organisation of crisis management in the partner countries and analysed the experience and good practices from other countries. The project partner countries also made preparations for the field exercise by agreeing on a general scenario for it.
  - (c) The field exercise tested the crisis management procedures of the partner countries. Through the exercise data was collected and used for a detailed analysis during the evaluation workshop. A consultation meeting was organized three weeks prior to the exercise during which the preparations to the exercise were reviewed.
  - (d) The final workshop discussed the results of the project, and in particular the analysis of data collected during the exercise. The project partner countries also shared the lessons learnt with other countries beneficiaries of the Assistance Programme.

## **Participation**

6. Representatives of the following authorities from the project partners participated in the project: from Bulgaria the Ministry of Environment and Water and the Ministry of Emergency Situations; from Romania the Ministry of Environment and Sustainable Development, the General Inspectorate for Emergency Situations with the Ministry of Administration and Interior and its County's Inspectorate, the National Environment Protection Agency and its local branches, the Romanian Waters National Administration and its regional branches; and from 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 and the Municipality of Negotin. Depending on the phase of the project the number of participating representatives differed.

7. In all phases experts from the Ministry of Environment, Land and Sea of Italy, as well as from ICARO (Italian advisory company on prevention and preparedness aspects) and representatives of the secretariat of the Convention participated. ICPDR (International Commission for the Protection of the Danube River) representative attended the technical workshop and the exercise. In addition, the exercise and were also supported by the Dutch Ministry of Housing, Spatial Planning and Environment, the Polish State Fire Service and the Croatian National Protection and Rescue Directorate.

## **Kick-off meeting**

8. The kick-off meeting for the project was organised in Bucharest on 17-18 March 2009. The meeting was hosted jointly by the Romanian Ministry of Environment and Sustainable Development and the General Inspectorate for Emergency Situations within the Romanian Ministry of Administration and Interior.

9. The main objective of the meeting was to discuss the implementation of the project, and in particular the three suggested project phases (the technical workshop, the in-field exercise and the final workshop) so that optimal involvement of each project country could be achieved.

10. The representatives of the partner countries agreed on the project phases as discussed above. As well they agreed to share equally the organization of the project activities so that each country would be responsible for arranging one of the phases. The technical workshop was to be organized by Romania.

The field exercise was to be initiated by Serbia that also organised a consultation meeting three weeks prior to the exercise as well as the evaluation workshop held back to back with the exercise. The final workshop was to be hosted by Bulgaria.

## **Technical workshop**

11. The technical workshop was held in Drobeta Turnu-Severin in Romania on 16-18 June 2009. The Romanian Ministry of Environment and the General Inspectorate for Emergency Situations within the Ministry of Administration and Interior of Romania organized the workshop.

12. The workshop consisted of two sessions. The aim of session I was to discuss the similarities and differences in crisis management procedures between the three project partner countries and to exchange good practices from other countries. The aim of session II was to develop a general scenario to be used in the in-field exercise by agreeing on a general scenario for it. The extensive and detailed discussion in both sessions, as well as the conclusions of the workshop can be found in the report of the workshop.

### **Session I: Procedures for responding to emergency situations**

13. The workshop began with presentations on procedures in each of the project partner countries for (a) emergency notification, (b) emergency management and (c) modelling. The presentations were followed by group discussions on these procedures and to identify similarities and differences with the aim to establish better understanding between the three countries.

### **Session II: Elaboration of the exercise scenario**

14. The project partner countries agreed that they would respond to the emergency as simulated in the exercise in accordance with the existing emergency procedures, taking each step that is needed for conducting the notification, including national and the cross-border notification and for organising the response.

15. The countries identified a petroleum storage located at the bank of the Danube River in Prahovo, Serbia, as a possible source for causing transboundary effects in the event of an accident. The distance from the border to Romania and Bulgaria is respectively approximately 1 and 13 kilometres. The petroleum storage and the local authorities agreed to cooperate in the project.

16. The ICARO representatives proposed for consideration and discussion a possible scenario. The proposed scenario allowed the countries to test their emergency procedures and response capacities in a situation, which in case of a real accident, would require effective cooperation between the three countries. All partner countries agreed on the outlines of the field exercise.

17. The exercise was to start at the petroleum storage in Prahovo, Serbia with the notification to the local authority. Each country would appoint its representatives who would prepare reports describing the actions taken. These reports would be presented during the evaluation workshop in Negotin the next day. The reports would be discussed with the evaluators. The results of the modelling done by the countries would be compared against the modelling done by the evaluators.

## **Consultation meeting for the in-field exercise**

18. The consultation meeting for the in-field exercise was held in Negotin in Serbia on 2 September 2009. The Serbian Ministry of Environment and Spatial Planning hosted the meeting. The aim for the consultation meeting was to review the preparations for the field exercise. The last practical arrangements were made and discussed concerning (a) the evaluation for the exercise and sharing of information between evaluators and emergency units, (b) the number of evaluators, (c) the timing for the exercise, and (d) participation to the workshop.

## **Field exercise and evaluation workshop**

19. The field exercise was held on 24 September 2009. The exercise had been initiated at Prahovo, Serbia and was performed along the Danube River until Vidin, Bulgaria. The evaluation workshop was held on 25 September 2009, the day after the in-field exercise, in Negotin, Serbia. The evaluation workshop was hosted by the Serbian Ministry of Environment and Spatial Planning.

20. The objectives of the exercise were to test the emergency procedures for notification, emergency response and modelling, also in respect to cross-border cooperation. The objectives of the evaluation workshop were to discuss the data collected, identify ineffective procedures and start preparing action plans/blueprints for further optimization of the crisis management.

### **The in-field exercise**

21. The field exercise was conducted according to the scenario agreed at the technical workshop. It started at 9 a.m. when wood chips to imitate a gas oil spill were thrown into the river at the Prahovo site in Serbia. The movement of the imitated spill 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.

22. During the exercise the partner countries and the exercise evaluators collected data related to: (a) national staff capacities in operating the notification systems (IAN and AEWS-PIAC systems), (b) the selection of the location for the response actions, (c) communication between the response forces and the crisis management staff, (d) the degree of preparedness of emergency equipment and its effective application by response forces personnel and (e) the use of modelling tools in assessing the movement of the spill.

### **The evaluation workshop**

23. The workshop consisted of two sessions. In session I the partner countries reported on the exercise with respect to the work on notification, emergency management and modelling. In session II the partner countries, supported by evaluators, worked in mixed groups to discuss the shortcomings that were identified in session I and discussed changes for implementation needed for improving the crisis management. The general outcomes of the evaluation workshop are presented here, but for a more elaborated and detailed overview on both sessions see the report on the in-field exercise and the evaluation workshop.

24. The notification group reported that internal notification and communication went well, but that the use of the international notification systems (IAN and AEWS-PIAC systems) should be improved. The group agreed that

- National training is needed for points of contact's staff to interpret and produce notification reports. Standard, agreed phrases could be helpful in completing the reports.
- Analytical and/or top-table exercises are needed to work out an effective communication for real situations.
- Web-based system allowing asking questions on the reports would be desirable. This conclusion should be presented at the consultation for points of contact within the UNECE IAN System for further discussion.
- Also, the countries should explore possibilities to establish working communication/notification between authorities responsible for emergency response at local level.

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

26. As for the short term solutions, the partner countries agreed to:
- Nominate focal points at local level for joint management of emergencies and consider establishing a joint working group.
  - Exchange offsite contingency plans and to harmonize these plans by the working group; in case there are no plans, they should be developed on country basis.
  - Discuss splitting the Danube River between Prahovo and Vidin into operation sections for response.
  - Develop possible scenarios for emergencies and optimize the emergency preparedness for them.
  - Hold regularly exercises to test on changes introduced to the procedures.
27. To open the possibility for joint response, in the mid term the countries should consider drafting and signing agreements allowing the response forces to cross the border in case of emergency situation. This should also lead to building joint staff groups for managing emergencies along the Danube's border.
28. As for the long term solution, the countries should look for possibilities to make available more efficient equipment for response to oil spills. Also, the countries should consider a joint application to potential donors.
29. The modelling group reported that all partner countries used the ICPDR's Danube Basin Alarm Model (DBAM) software, but that they have missed some data to be inserted into the model which would have allowed better predication of the movement of spill. Agreed was that the use of software modelling should be enhanced. The countries need to cooperate better by exchanging and comparing hydrological and meteorological data. In addition the countries requested that a model would be made available to them that differentiate between smaller and major accidents.

## **Final workshop**

30. The final workshop was held in Sofia, Bulgaria on 17-18 November 2009. The Bulgarian Ministry of Environment and Water hosted the workshop.
31. The workshop consisted of three sessions. Session I was devoted to presentations by Bulgaria, Romania and Serbia and discussion on conclusions from detailed data analysis from the exercise. Session II included presentations and discussion on the draft blueprints under development of Bulgaria, Romania and Serbia aimed at improving crisis management. Finally session III focused on sharing and discussing the results and lessons learnt from the project with other countries beneficiaries of the Assistance Programme interested in improving their own crisis management

### **The evaluation workshop**

32. The project partner countries reported on further progress related to analysis of data collected during the exercise and preparation of the blueprints. The findings discussed in the evaluation workshop were further discussed and put vis-à-vis the challenges identified in meantime for the actions to be taken in national context.
33. The three project partner countries appreciated the project and in particular the data that they collected through the project and the clear recommendations for the follow-up actions. They also appreciated all the personal relations that were established between representatives of different ministries within, as well as between local and regional authorities of the three countries.
34. The invited countries, beneficiaries of the Assistance Programme whose representatives joined the final workshop (Armenia, Croatia, Georgia, Republic of Moldova and TŷYR of Macedonia), congratulated on the very concrete results obtained through the implementation of the project. They also thanked for sharing the results and the recommendations, a number of which could be undertaken for implementation in their countries. Some countries, e.g. Republic of Moldova, informed that they would appreciate organization of similar project at their borders in joint cooperation with their neighbouring countries.