

**Name of the Partnership/Initiative**

Pilot Project on rapid environmental and health risk assessment in secondary rivers of the mean and lower Danube basin.

**Date of initiation: 2002**

**Expected date of completion: 2005**

**Partners Involved:**

Governments:

- Ministry for the Environment and Territory of the Italian Republic
- Ministry for the environment and waters of the Republic of Bulgaria
- Ministry for Waters and Environmental Protection of Romania
- Slovak Hydrometeorological Institute, SHMI

Other:

- ICARO Srl- Italy
- Environmental Regional Inspectorates of the Republic of Bulgaria
- Environmental Regional Inspectorates of Romania
- ICIM- Romanian Institute for Research and environmental protection

**Additional partnership are envisaged**

*Leading Partner:*

Italian Ministry for the Environment and Territory- Department for Global Environment, International and Regional Conventions

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**Main objectives of the Partnership/Initiative**

Each partner essentially contributes to the implementation of the project. In particular:

- Ministry for the Environment and Waters of the Republic of Bulgaria, Ministry for Waters and Environmental Protection of Romania, with the support of respective regional inspectorates and in cooperation with the Italian Ministry for the Environment and Territory, has the responsibility to coordinate all local activities: organization of meetings, involvement of the industries data collection, data elaboration. Moreover, they provide relevant expertise and facilities, such as computers and support working documents.
- **ICARO srl**, as partner of the Italian Ministry for Environment and Territory, is leading the development of the technical aspects of the methodology, including the specific software for data management.

The main goal of the Pilot Project is to develop, implement and test an evidence-based methodology for rapid assessment of environment and health risks for selected area with high dangerous industrial activities.

The main characteristic of the Project is to be repeatable and applied in different geographical areas and to different situation.

In order to test the validity of the methodology, a Pilot phase was implemented on some industrial activities located in the area of Danube basin in Bulgaria, Romania, Hungary.

The results reached in this Pilot Phase showed the great value of the project as method to be applied in the next future for the environmental and health risk assessment.

Therefore, the Project will be further implemented in Bulgaria and Romania, but also in the Mediterranean area hot spots.

In the implementation of the project, the following basic objectives will be sequentially achieved:

- Identification, classification, inventory and ranking of hazardous industrial or abandoned sites in selected geographical areas.
- Research, analysis and collection of available data about severe contamination events (incidents, releases, etc.), which have occurred in the past (starting from 1990).
- Gathering of information and basic evaluation of existing environmental and health conditions, both outside as well as inside highly hazardous industrial sites.
- Rapid assessment of the environment and health risks for the highly hazardous sites, by specific procedures and scenarios mapping.
- Gathering of information about risk perception by the public.
- Identification of local Institutions, Authorities, Industrial Associations, Trade Unions, Public Movements or Associations which could be sources of information or could be involved in the further planning and risk management.
- Assessment of the health-related industry, particularly drinking water production, its vulnerability to industrial accidents and its level of preparedness.
- Assessment of the preparedness of the most hazardous industrial sites to deal with environment and health emergencies, including staff training.
- Assessment of the preparedness of local authorities to deal with industrial accident prevention and management.
- Evaluation of the practical relevance of UN Conventions, particularly the technical guidance of the 1992 UN/ECE Convention on the Protection and Use of Transboundary Waters and International Lakes and its Protocol on Water and Health, the Aarhus Convention and the UN/ECE Industrial Accidents Convention.

One of the most important applications of the Pilot Project will interest the hot spots of the Mediterranean region; in particular, the main goal will be to develop a specific methodology to target primarily the immediate and acute consequences of a sudden accident spill oil and dangerous substances by ships activity during the navigation or during the operations into the ports (for example near loading wharf).

The methodology will be based on criteria and elements deriving from recognised sources, such as Barcelona Convention and its related Protocols, EC Directives, UNEP-documents, Mediterranean Coastal States national regulations and their implementation.

REHRA MED methodology will be organized into two modules:

- the first module defines the Environment and Health Risk which might be related to a single ship carrying dangerous goods by more marine, coastal or port areas (possible targets);
- the second module define the Cumulative Environment and Health Risk which might be related to a single area (marine, coastal or port) interested by a traffic of several ships carrying dangerous goods.

The additional implementation in Bulgaria , Romania and Slovack Republic will start by the end

of 2002 and will be developed on one year period, concerning.

- Training on Assessment and Management of Environment and Health Risks deriving from industrial sources
- Trans-boundary Rapid Environment and Health Risk Assessment from industrial sources and preliminary Offsite Contingency Plans.

**Please also provide a brief description of the relationship of the Partnership/Initiative with the objectives of Agenda 21 as well as relevant goals and objectives of the United Nation Millennium Declaration:**

The project is relevant for several objectives and provisions of Agenda 21:

In the framework of the “**Social and economic Dimensions**” (Section 1 of Agenda 21), the project aims to reach the protection and promotion of human health and to implement actions for the integration of environment and development in decision-making.

The project also applies integrated approaches to the development, assessment and management of water resources, toxic chemicals and hazardous wastes, in line with the Section 2 of the Agenda 21 on “**Conservation and Management of Resources for Development**”

The objectives described in the Section 3 of the Agenda 21, “**Strengthening the Role of Major groups**” are included in the activities foreseen by the project, with the aim to strengthen the role of workers and trade unions and the role of business and industry.

Finally, the “**means of implementation**” of the project are consistent with the Section 4 of the Agenda 21, with particular attention to: cooperation and capacity building, promotion of public awareness and training, implementation of international legal instruments and mechanisms.

The project activities reflects some goals provided by the UN Millennium Declaration, in particular those related to the **respect of nature**, as fundamental value (point 6 of the Declaration), and to the **protection of our common environment** (Section 4 of the Declaration), with the aim “to stop the unsustainable exploitation of water resources by developing water management strategies at the regional, national and local levels, which promote both equitable access and adequate supplies”. Moreover, with reference to the defense of **human rights, democracy and good governance** (Section V of the Declaration), one of the cross-sectoral aims of the project is “to work collectively for more inclusive political processes, allowing participation by all citizens in all countries”.

Most of the project objectives are also reflected in the Section IV of the Chairman’s Text for negotiation to the IV PrepComm. Meeting in Bali (**Protecting and Managing the natural resource base of economic and social development**), where it stated that efforts are necessary in order to:

- Facilitate access to public information and participation at all levels in support of policy and decision-making related to water resources management and project implementation as well as empower women;
- Adopt prevention and protection measures against water shortages and water pollution, including the discharge of polluting substances, and promote wastewater treatment technologies, including ecological sanitation.
- Develop and implement national/regional strategies, plans and programmes with regard to integrated river basin, watershed and groundwater management as well as introduce

measures to improve the efficiency of water infrastructure to reduce losses and increase recycling of water;

- Employ the full range of policy instruments, including regulation, monitoring, voluntary measures, market and information-based tools, land-use management and cost recovery of water services, and adopt an integrated water basin approach;
- Support developing countries and countries with economies in transition in their efforts to monitor and assess the quantity and quality of water resources, including through the establishment of national monitoring networks and water resources databases and the development of relevant national indicators.

The Pilot Project will bring an important contribution to the achievement of sustainable development for some reasons:

1. first of all, the project considers jointly the assessment of the risks for environment and for health, elaborating recommendations on how to act to ensure a “health-sustainable” environment for the future generations.
2. secondly, it is a programme involving neighbouring countries: the comparison of the results and the exchange of experiences will bring to a common understanding of the existing gaps and joint evaluation of the needed actions required to reach sustainable standards.
3. the relevant added value of the project is the capacity to serve as basis for further developments in other areas, other countries, and other economic and social sectors. In particular in future application of the methodology will be emphasised the transboundary elements related to the management of hazardous industrial activities and their impact on environment and health and to the implementation of the international legislative instruments. Moreover, the aim will be to stimulate local authorities to undertake action for prevention and management and to develop a wider programme on population/NGOs involvement.

### **Expected results:**

It is expected that the project will test the evidence-based methodology for rapid assessment of environment and health risks for the selected areas.

A formal Final Report will include all organized data bases containing information, data, mapping and results

This organized data base will allow:

- ❖ the identification of vulnerable areas and relevant industrial hazards, level of preparedness of industry and local authorities, information on baseline health,
- ❖ the management of risks and of the possible emergencies in advance,
- ❖ to create a support tool for land use planning,
- ❖ to establish common language to a transboundary communication and management of the industrial risk.

The project aims, as possible future development, to the extension of the assessment to significant continuous pollution due to industrial gas emission into the atmosphere, liquid and solid wastes.

With reference to the Governmental Institutions of the involved countries, they have recognised the big value the implementation that the project will bring at national and local level; infact, the project will facilitate, first of all, the definition of an updating inventory of industrial activities and will create the basis for the application of the provisions of the Seveso II Directive, essential for the Countries which in the accession process to the European Union. Moreover, the project

will allow a better cooperation between National Institutions, Local Authorities and private sectors, with the aim to identify gaps and needs for better prevention and management of the risks for the environment.

In general, the development of the methodology foreseen by the project gives an important added value for all partners involved, because it provides for a new tool which put together experiences, information, methods and strategic objectives essential to work towards sustainable development.

**Specific targets of the Partnership/Initiative and timeframe for their achievement:**

The Pilot Project proposes, implements and tests an integrated approach (methodology) for an environmental and health rapid risk assessment, in case of severe industrial accidental events coming from highly hazardous industrial or abandoned sites, within selected geographical areas.

The application of risk assessment techniques, at the suitable level and accuracy required by the “rapid” approach, is designed to identify worst case scenarios following a severe accident, in a systemic and repeatable way, for supplying the involved Countries with a proactive tool to prevent, monitor and manage risks and related foreseeable emergencies for the protection of the health and the environment.

It is estimated that a deep implementation of the methodology requires 8-10 months for each selected areas, from the sites identification and inventory phase to the final results, passing through the collection of data and the field work.

During the project’s implementation particular interest will be paid to public participation component by surveying the level of public perception of the risk in the target countries. Project also will tackle upon the issue of public preparedness for industrial accidents. The results of the survey and other issues related to the public access of industrial risk and environment and health information will be discussed during multi-stakeholder meetings and workshops raising public awareness of industrial risk, its perception and management.

2-3 months are usually necessary to finalize the work on population and workers.

Starting the activities during the second half of 2002, it is estimated to finish the implementation on all selected areas on a three years period, having comparable results by the end of 2005.

**Coordination and Implementation mechanism**

Please provide a brief description of expected coordination/implementation mechanism of the Partnership/Initiative.

Coordination and implementation of the project are ensured through the establishment of an International Working Group, composed by the representatives of each Government, organization, groups involved in the project and technical staffs.

The Working Group is responsible for general survey and co-ordination of all project activities, and the technical staffs are responsible for the implementation and testing of the methodology and for the draft of the final reports.

The updating on the activities and the achieved results are periodically presented to the European Environment and Health Committee.

### **Arrangements for funding**

#### *Current Funders:*

The Pilot Phase in Bulgaria, Romania and Hungary was financed by the Italian Ministry for the Environment and Territory for a total amount of 455.000 Euro.

For the implementation of the extended application of the methodology, the Italian Ministry for the Environment and Territory will provide a contribution of 150.000 Euro. The total cost of the additional application will be 250.000 euro.

It is expected that the other Partners will provide contribution in kind, such as experts and necessary equipment for collection and elaboration of data.

The project will be open to the contribution of other donors; with this regards, the project is included in the list of projects of REReP (Regional Environmental Reconstruction programme).

### **Arrangements for capacity building and technology transfer**

Capacity Building activities are an essential part of the project and they are aimed to:

- improve the knowledge of the beneficiary Countries on the main MEAs and European Directives addressed by the project, namely, the Seveso II Directive and the UNECE Conventions on transboundary cooperation, giving instruments for their implementation.
- train experts, people responsible for the industrial sites, workers on European and international requirements to satisfy safety and environmental protection standards
- give assistance to the local team for the elaboration of the final reports
- find common tools to increase the public participation in environmental matters and to establish a procedure for risk communication.

These activities are carried on through:

- training seminars addressed to the local team
- workshops on public participation and risk perception with the support of REC
- workshops with local team, people responsible for the industries and NGO to present and discuss the results achieved.

In order to facilitate the knowledge of the project and its implementation all documents will be translated in the languages of the involved countries.

Software was created by Italian experts for collection and elaboration of data in the Pilot Phase and will be reviewed and updating for next implementation phases.

Informative pamphlets will be drafted to allow better understanding of the project.

#### **Technology transfer:**

One of the aims of the project is to identify together with people responsible for industrial sites if and how the plants could be improved in terms of equipments and safety measures consistent with the European standards. In order to reach this aim, final recommendation is elaborated with the agreement of the local teams.

The possible outcome of this work will be to strengthen the cooperation in the field of technology transfer.

### **Links of Partnership/Initiative with on-going sustainable development activities at the international and/or regional level (if any)**

The Pilot Phase of the Project was formally approved by EEHC (European Environmental and

Health Committee):

*“The EEHC endorses the joint initiative by the Government of Italy and WHO to develop a proposal for a pilot project to develop and test an evidence-based methodology for rapid assessment of environment and health risks. This project could be a good catalyst to bring together all relevant authorities in the field of environment and health in the affected countries to work more effectively.*

*The pilot project is open to input, and all stakeholders, including the local civil society, are invited to contribute to the formulation of the technical workplan and the actual implementation of the project. Before deciding on the workplan, a proposal for the scope (regional, national, international) as well as the practical use of such a project (by authorities, industry, public) needs to be evaluated and communicated to all interested parties”*

Also the ICPDR (International Commission for Protection of Danube Rivers) has recognised in different international fora the relevance of the project.

### **Monitoring Arrangements**

Progress towards achieving the general goals of the partnership and the specific commitments by the partner will be monitored by regular updates on activities, in particular:

- joint meetings of Italian and beneficiary countries working team each month.
- presentations in international scientific forum/conference

### **Other relevant information:**

Web-site: [www.minambiente.it/sito/pubblicazioni/altre/project\\_danube.asp](http://www.minambiente.it/sito/pubblicazioni/altre/project_danube.asp)

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