1. Basic information

1.1. Désirée Number: 2002/000-180-04-01

Twinning Number: HU/IB/02/EN/01

1.2 Title: Support in the implementation of the Water Framework Directive

1.3 Sector: Environment

1.4 Location: The whole territory of Hungary, as covered by the National Water Authority (NWA) and its 12 Territorial Directorates, and the National Environmental Inspectorate and its 12 Territorial Environmental Inspectorates (TEIs).

2. Objectives of the project

2.1 Overall Objective: to assist Hungary’s accession to the EU by contributing to the implementation of the Water Framework Directive (Council Directive 2000/60 EC) through the development of its (i) national accidental water pollution control system and (ii) monitoring system of surface waters and groundwaters.

2.2 Project purpose:

(a) Strengthening prevention, intervention and mitigation capacities in the field of accidental water pollution control.

(b) Basic survey and quality assessment of surface water and groundwater bodies according to Annex 5 of the Water Framework Directive.

(c) Strengthening institutional capacities which are necessary to the introduction and implementation of the Water Framework Directive, especially in the fields of (i) prevention of accidental water pollution by industrial and agricultural facilities through the gradual introduction of the ‘safety installation’ principle and (ii) introduction of ecological monitoring of the quality of surface waters and (iii) quality assurance of monitoring surface waters and ground waters.

2.3 Accession Partnership and NPAA priority: The proposed project is in line with the relevant medium term priorities and intermediate objectives of the Accession Partnership:

“Environment: ...complete transposition and enforce legislation in the areas of nature protection, water quality....”.


The project is included in the NPAA under Chapter 6.1 (Environment) Section 6.1.4. (Water Protection)

“The law harmonisation duties envisaged ....... include the draft of the Water Framework Directive COM(97) 49.”

“....we are planning to prepare and implement river basin programmes and to create the necessary legal and institutional framework. The national regional water management planning was amended according to the water management planning in WFD.”

“Hungarian laws will enter into force in stages:
- general entry into force, preparation of pollution reduction programmes: up to the accession date
- compliance with effluent limit values immediately after the effective date of the Hungarian law in case of new plants, and progressively in the case of existing ones."

“New laws are necessary in order to modify the existing licensing system, to define technological requirements, effluent standards and environmental quality objectives, to specify monitoring and
reporting obligations, to determine environmental objectives and to create pollution reduction programmes. Self monitoring and reporting must be regulated on the governmental level”.

“Tasks: define best available techniques for each field of activity, prepare and implement pollution reduction programmes, establish and operate monitoring system for dangerous substances.”

“We need the EU’s support in improving lab equipment, measuring pesticides and developing a database.”

“... pollution reduction programmes can be implemented only gradually.”

NPAA, 1999, Vol II. Section 6.1.4: Protection of waters:

6.1.4.2 Discharges of dangerous substances into surface waters from industrial facilities
In addition to Council Directive 76/464/EEC on pollution caused by certain dangerous substances discharged into aquatic environment will be discussed in this section the following daughter directives as well:

‘...determination of surface water quality objectives.... is planned in connection with the introduction in Hungary of the group of directives in the annex...’

‘...define ... effluent standards and environmental quality objectives, to specify monitoring and reporting obligations, to determine environmental objectives ... Self monitoring and reporting must be regulated on the governmental level...’


‘...the foundation of the monitoring system and of a structured action plan, as well as ensuring water quality...’

6.1.4.5 Other directives regarding the quality of surface water (page 180)
Council Directive 75/440/EEC concerning the quality required of surface water intended for the abstraction of drinking water in the Member States (7 years);
Council Directive 79/869/EEC concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States (7 years);
Council Directive 78/659/EEC on the quality of fresh waters needing protection or improvement in order to support fish life (13 years);

‘...The water qualification system currently operates on the basis of the Hungarian Standard (MSZ) 12749. It determines the water quality measurement network’s sampling locations, the parameters to be measured and sampling frequency. Based on the measurements the qualification into five categories of the 5 groups of parameters does not differentiate between surface water that provides living conditions for fish and surface water used for drinking water procurement. There are no mandatory water quality standards to comply with or to reach...’

6.1.4.6 Protection of groundwaters
Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources;
Council Directive 86/278/EEC on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture;

‘...The primary goal of introducing these requirements...will reduce the load on water where it is still a problem and avoid problems in the future...’
Draft NPAA of June 2001

‘…Besides law approximation and institution building tasks, the preparation of professional tasks are to be continued … There are several tasks under preparation at the line ministries in connection with 2000/60 EC Water Framework Directive. The most important ones are as follows:

- Criteria for the selection of water bodies
- Criteria for the determination of good quality of water

6.1.4.5 Other Directives on the quality of surface waters

There are three Directives which will be repealed by the General Directive on Water Protection: Directive 75/440/EEC concerning the quality required of surface water intended for the abstraction of drinking water in the Member States Directive 79/869/EEC concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States Directive 78/659/EEC on the quality of fresh waters needing protection or improvement in order to support fish life ‘…Designation of surface waters suitable for the extraction of drinking water and waters categorised into the two fish classes…’

6.1.4.6 Council Directive 80/68/EEC on the protection of underground waters against pollution caused by certain dangerous substances (ground water protection directive)

‘…the most important task is to survey emissions subject to the effect of the Directive. Data processing and national registration has to be done in harmony with the national survey effort under the National Environmental Damage Elimination Program…’


‘…One of the key elements of domestic regulation is the designation of nitrate-sensitive areas, where good agricultural practise must be introduced. The necessary information supply and registration system demands new tasks especially at the Ministry of Agriculture and the monitoring program relating to the quality of waters at the Ministry for Environment and the Ministry of Transport and Water Management…’


‘…The General Directive lays down numerous tasks, which are to be implemented step-by-step under 15 years. The approximation of laws and the development of the system of institutions has to be completed by 22nd December 2003. The characterisation of river basin districts and necessary economic analysis have to be completed by 22nd December 2004. The monitoring program has to be prepared by 22nd December 2006, which – in respect of Hungary – accounts for a certain level rearrangement of the current monitoring system and innovation concerning certain elements (e.g. introduction of biological indicators)…’

Regular Report 2000, Chapter 22

Further efforts in aligning with the acquis are needed in particular in the following areas: … water quality standards for drinking and bathing water as well as for the aquatic environment…’

2.4 Contribution to the National Development Plan

Not Applicable

2.5 Cross Border Impact

The project activities have to be co-ordinated with the neighbouring countries in order to support the overall objective of the Water Framework Directive to arrive at a co-ordinated River Basin Management Plan for the entire Danube basin. The necessary co-ordination will be carried out in the frame of existing bi-lateral agreements and where relevant in the frame of the working bodies of the Danube Convention.
3. Description

3.1 Background and justification:

3.1.1 Accidental water pollution: The total territory of Hungary belongs to the Danube river basin. The overwhelming majority (95%) of the Hungarian surface waters is originated in foreign countries. About 35% of the drinking water resources are of surface water origin. Remarkably, 23 trans-boundary rivers enter Hungary and three leave only. Water usage is very intensive in the basin. The countries in the Danube basin can be separated into two groups from the viewpoint of accidental water pollution risk:
- countries with well developed economy, social security, good institutional capacities regarding water pollution control;
- countries which mostly are in shortage of these instruments, but they have economic uncertainties, and they are in transition period and restructuring their economy which constitutes substantial pollution risk.

There are important water needs on the Hungarian rivers including
- drinking water supply for Budapest (bank filtration for 2 million inhabitants), Pécs (surface water intake for partial supply for 200,000 persons), Debrecen (partial supply for 200,000 persons), Szolnok (60,000 persons);
- industrial water usage;
- agricultural water usage like irrigation and fish ponds;
- vital national conservation areas, among others Ramsar sites;
- areas with high recreational value.

While the status of quality of Hungarian waters is generally acceptable, their pollution bearing capacity is relatively and variably low. The number of accidental pollution events of surface waters is around 80 annually, of which some 10% originates outside Hungary. 80% of pollution is caused by hydrocarbons. Around 30% of all events require response of various forms, and the number of major events is around five annually. The worst one in twenty years was the cyanide pollution of the rivers Tisza and Szamos in 2000 originating from Romania.

The responsibilities for accidental water pollution control are shared between the Ministry of Transport and Water Management (MTWM) and the Ministry of Environment (MoE) and is implemented in close co-operation: inspection and pollution response are done by the Territorial Directorates of NWA under MTWM, while prevention and monitoring are joint activities of the TDs of NWA and the TEIs.

Initial steps have been made for setting up an accidental pollution source inventory to cover Hungary and, since the above mentioned cyanide pollution, upstream countries on the river Tisza including Slovakia, Romania and the Ukraine.

Industrial, agricultural and business activities with water usage above 5m$^3$/h or using hazardous technologies are required by law to prepare accidental pollution prevention and response plans for their facilities. TDs are in charge of their inspection, which is currently used as the major tool in fostering prevention mainly through penalties and fines. The system needs to be changed and the dialogue and partnership approach adapted with targeted communication with industry and the public, raising awareness and coalition building with stakeholders. Changing the approach will have a major contribution to shifting emphasis from intervention to prevention. Twinning assistance will be used for taking over experience of a Member State which is well advanced in this respect.

The Framework Directive requires the preparation of a programme of measures incorporated in a river basin management plan. In the plan ‘good water quality status’ is defined and measures determined for reaching/maintaining it. Within this watershed contingency plans describe the necessary measures for controlling accidental pollution of surface waters. Preparation of watershed contingency plans has begun in Hungary and seven initial plans have been completed to date. The planning methodology must be developed, the initial plans revised for consistency of content and methodology and some 40 more plans prepared.

The national reporting and registration system has very weak IT support at the moment. A comprehensive IT application is needed which will cover NWA, the 12 TDs and 12 TEIs.

TDs each have response equipment, tools and materials ready for deployment in their territories. The average age of equipment stock is 12-15 years with little replenishment and upgrading in recent years due to financial constraints. New technologies are scarce and not keeping pace with the breakthrough in the 90’s. The number of intervention points meets the necessary minimum but both the new technologies to be introduced and the need for rapid response and better containment require upgrading existing intervention points and building new ones.
3.1.2 Monitoring surface waters and groundwaters:

**Surface waters:** National standard No. 12749 determines the points, components and frequency of the sampling and measurements to be taken in the framework of the national surface water quality monitoring network. Sampling and analyses are carried out by the TEIs and local institutes of the National Public Health and Medical Officer Service. The water quality data from 150 sampling points of the national network and 90 points of the regional network are forwarded to the Institute of Environmental Management for annual evaluation and publication.

The data collection goes back to 30 years and it is focused on usual traditional parameters. Thus the available information is scarce in respect of the ecological status of surface waters and, within the traditionally measured chemical status, in respect of priority pollution substances.

In order to have a proper surveillance monitoring system, first of all a basic survey is needed in the field of ecological status and the chemical status of waters. On the basis of the results gained appropriate reference water bodies can be selected for their characterisation in the future. Regarding the fact that the methodology on the selection of reference sites and the evaluation will be developed by the Commission by the end of 2003, this project can only aim at assessing the current status of the ecological and chemical quality of waters and, through this, it will provide the basis of the rapid development of the water monitoring in Hungary according to the EU Water Framework Directive when the harmonised principles are available.

**Groundwater:** In Hungary groundwaters are of immense significance, since 95% of drinking water is acquired from this particular source. Hungary is a very diverse country from the hydrogeological point of view. Roughly 2/3 of the present water bases are in vulnerable areas.

Monitoring of groundwater is carried out in several ways in Hungary:

- Wells of drinking water are monitored by the operators themselves. In addition to that the health authorities carry out control measurements;
- The National Groundwater Monitoring network was established in 1983 for research purposes. There was established the objective of the establishment of the Groundwater Quality Control and Assessment Network in 1995 was to integrate the existing networks.
- In Duna-Tisza interfluvial region, which is the most problematic region from both quality and quantitative point of view in Hungary an environmental groundwater monitoring system of 96 wells has been established during the period of 1996-2000 by Ministry of Environment.

The data are stored in the national groundwater data bank, which is open to scientific and other uses. The information is evaluated regularly and the data are used in the daily work of both the environmental and water authorities.

The existing monitoring network focuses on subsurface drinking water resources. As shallow groundwater is generally too polluted to be considered as a source of drinking water, only few measurements are made and consequently the information on shallow groundwater is scarce. This situation certainly bears considerable risk from the environmental and health points of view, as these groundwaters are not independent from the drinking water resources and may also pollute surface waters. One of the goals of the project is to decrease the gap in this field.

The Water Framework Directive will regulate the environmental requirements of water management in an integrated way. Hungary has started to develop the monitoring systems required by former EU Directives, but with the new WFD the monitoring requirements will substantially grow. The gap between the requirements and the current practices will be considerable especially in the field of ecological monitoring and of chemical monitoring with specific regard to dangerous substances. Especially the survey of the existing contamination level is missing in these areas which will be addressed in the project.

3.2 Linked activities:

3.2.1 Accidental water pollution:

(a) **Phare projects:**

HU-903 “Master plan Study for Surface Water Monitoring” dealt with the development of the National water flow monitoring network. New automatic water-gauge stations were settled. The project was continued in HU-905 project, where the water quality monitoring was in the focus (as a continuation of HU-903). The possible consequences of the development of automatic water quality monitoring stations were examined. As a consequence six automatic monitoring stations have been built in parallel projects with international help.

(which was in draft form at that time). The possible policy and legislative options were reviewed from the point of view of possible adaptation.

HU/IB/2001/EN-01: TWINNING: Implementation of environmental legislation by the national/regional Environmental Inspectorates. In particular the following component: drawing up of Pollution reduction programmes for list II substances discharged into surface waters (WFD)


3.2.2 Monitoring surface waters and groundwaters:

(a) Phare projects:
   - HU9807/IB/EN-01 Legal Approximation Twinning, Component 4
   - HU9807-03: Development of Environmental Laboratories Equipment
   - HU/IB/2001/EN-01: TWINNING: Implementation of environmental legislation by the national/regional Environmental Inspectorates. In particular the following component: Drawing up of Pollution reduction programmes for list II substances discharged into surface waters (WFD)

(b) Other national programmes:
   - Ministry of Transport and Water Management (MTWM): Wellfield Protection program (for vulnerable aquifers)
   - Ministry of Health (MH): National Health Action Program (NEHAP)
   - Ministry of Environment (MoE):
     - Alföld program-(groundwater monitoring network development and operation)
     - Surface water quality control (150 points of national network and 90 additional points of regional network)
   - National Clean up Program

3.3 Results:

Component 1: Accidental water pollution:

(a) Twinning:
   - Equipment needs reviewed and technical specifications validated.
   - NWA central and territorial staff are trained in communication techniques and the use of new response techniques;
   - communication, inspection and enforcement capabilities of NWA, its TDs and of the NEI and its TEIs have improved in the field of precautionary measures at potential sources of pollution (industrial and agricultural producers etc.);
   - the licensing system of water usage by industrial and agricultural facilities has improved;
   - public awareness has grown in respect of accidental water pollution;
   - coalition building with stakeholders is more efficient;
   - recommendation are made to Government for the introduction of incentives and disincentives.

(b) Other results:
   - territorial watershed contingency plans are available;
   - reporting and registration system is up to the requirements and is supported by a suitable IT application;
   - new accidental pollution response technologies are introduced;
   - accidental pollution response equipment is upgraded;
   - the number of damage control points on rivers are increased and existing ones upgraded.

Component 2: Monitoring surface waters and groundwaters:

(a) Twinning:
   - recommendations are made for the surveillance monitoring of surface and groundwaters;
   - increase the institutional capacity for the implementation of the EU WFD
   - ecological monitoring has been institutionalised for surface waters.
(b) Other results:

- assessment of the ecological and chemical status of surface waters is completed which, *inter alia*, creates a sound basis for the delineation and characterisation of the water bodies later in line with Annex II of EU WFD requirements;
- scientific basis established for the designation of reference areas in Hungary in accordance with the Annex II of EU WFD;
- assessment of the chemical status of groundwaters completed;
- criteria are available for the qualification of waters;

Through the above outputs the immediate objectives of the project are fulfilled: prevention and rapid response capabilities are ensured at all levels of the NWA, the quality of the Hungarian surface waters is improving, the required range of use of waters is ensured and damage mitigation expenditures will substantially decrease, preventive capabilities and activities of NWA are more efficient, the conditions are created for the implementation of the WFD in monitoring surface and groundwaters, ecological monitoring of surface waters has been institutionalised.

3.4 Activities: In order to achieve the objectives of the project, the following activities will be undertaken by the implementing organisations:

**Component 1: Accidental water pollution:**

**Activities:**
- Development of watershed contingency planning methodologies and preparation of actual watershed contingency plans.
- Procurement of response tools and equipment;
- Adaptation of new response technologies, including preparation of intervention plans and training in their use;
- Building/upgrading intervention sites on rivers;
- Procurement of IT application for the support of the reporting and registration system.

**Twinning - PAA-1:**

(a) Strengthening capacities in the field of preventing accidental water pollution by industrial and agricultural facilities by the gradual introduction of the ‘safety installation’ principle. The activities will include:
- Review of the equipment needs and the proposed indicative equipment list (Annex 8).
- Assistance in improving the licensing system;
- Transfer of knowledge and operational experience in inspection and supervision;
- Advice and assistance in raising public awareness;
- Training of staff of NWA and its TDs and NEI and its TEIs in communication techniques and assistance in improving communication with industry;
- Building coalitions and partnerships with stakeholders;
- Making recommendations to Government for the introduction of incentives and disincentives.

These activities would support and complement the ongoing introduction of the Integrated Pollution Prevention and Control Directive in the field of accidental water pollution).

(b) Strengthening capacities in the field accidental pollution response. The activities will include:
- Development of the existing notification system;
- Transferring operational experience in respect of new response technologies;
- Training in the use of new response technologies.

PAA-1 will be assigned for a period of 12 months to the NWA.

The required profile of the PAA-1:
- wide ranging experience in the field of accidental water pollution;
- knowledge of the approach and practice of other Member States in the field of accidental water pollution;
- experience in prevention, including influencing of stakeholders and coalition building;
- knowledge of new response technologies;
- good command of the English language.

**Component 2: Monitoring surface waters and groundwaters:**

**Activities:**
- Carrying out a basic survey of the ecological and chemical status of surface waters, including the designation of sampling points, determination of analytical parameters and the frequency of sampling, carrying out the
ecological and chemical analysis (the latter for traditional parameters and priority pollutants), as well as processing and evaluation of the findings. 400 sampling points are envisaged and two samplings from each;

- Carrying out a survey of the chemical status of groundwaters, including the designation of sampling points, determination of analytical parameters and the frequency of sampling, drilling sampling bore-holes for new sampling points, sampling from existing points (operating wells, springs and bore-holes) and new sampling points, chemical analyses for conventional parameters and priority pollutants, as well as processing and evaluation of the findings. 500 new sampling points are envisaged, each consisting of a pair of bore-holes, one between 5-10 metres, one below 20 metres. Sampling will be made from approximately 1000 points (300 springs, 200 existing and 500 new bore-holes).

- **Twinning - PAA-2:**

Assistance in the preparation of the implementation of quality assurance of monitoring of surface waters and ground waters, and promote the activities on the field of water monitoring in harmony with the Annex V. of the WFD. The activities will include:

- Preparation and development of assessment concept;
- Supervision of the tasks and consultation with the service contractors;
- Assistance in the characterisation of water bodies;
- Preparation of recommendations for regular surveillance monitoring;
- Preparation of training material and organisation of seminars on the implementation of quality assurance of surface and groundwaters.

PAA-2 will be assigned for a period of 12 months to the Department of Integrated Pollution Control of MoE.

The required profile of the PAA-2:

- experience in the implementation of quality assurance of surface and groundwaters monitoring preferably in a Member State having outstanding reputation in this field;
- wide knowledge on the field of ecological monitoring;
- experience in the management of professional training for the relevant staff;
- good command of the English language.

## 4. Institutional framework

The beneficiaries of the project include:

**Component 1 (Accidental water pollution):** NWA, TDs;

**Twinning:** NWA, TDs, NEI, TEIs

**Component 2 (Monitoring surface waters and groundwaters):** MoE, NEI, TEIs;

**Twinning:** MoE

A detailed description of the institutional background is given in Annex 7.

The concerned organisations possess the professional expertise and experience required for the preparation and management of implementation of the project.
5. **Budget**

<table>
<thead>
<tr>
<th>Description</th>
<th>Investment (I)</th>
<th>Institution building (IB)</th>
<th>Phare total (I+IB)</th>
<th>Recipient joint co-financing</th>
<th>IFI</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>1. Accidental water pollution</td>
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<td>3.187</td>
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<tr>
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<td>2.011</td>
<td>0.789</td>
<td>---</td>
<td>2.800</td>
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<td><strong>5.698</strong></td>
<td><strong>2.063</strong></td>
<td></td>
<td><strong>7.761</strong></td>
</tr>
</tbody>
</table>

* The Twinning activities will be implemented in the framework of a Single Covenant of 1 M€ with 2 PAAs

Although no specific co-financing is indicated in the fiche in relation to the twinning component the Government undertakes to provide the resources to cover the necessary counterpart expenses arising from the implementation of the twinning covenant in line with the established Phare rules and the needs of the project.

The co-financing for the service, supply and work contract should be intended as joint co-financing between Phare and Government resources. The Phare amount is binding as a maximum amount available for the project. The ratio between the Phare and national amount is also binding and has to be applied to the final contract price.

6. **Implementation arrangements**

6.1 **Implementing agency:** The PAO of the project will be Ms. Judit Rózsa, Head of the Central Financing and Contracting Unit (CFCU – Deák Ferenc u. 5, H-1052 Budapest, phone: +361-327-3652, fax: +361-327-3572, E-mail: jrozsa.cfcu@allamkincstar.hu) and the CFCU will be charged with the administrative and financial management of the project.

As the project will be implemented by two ministries and their subordinated institutions, it will have two components.

**Component 1:** MTWM will fulfil overall technical supervision, co-ordination and management functions of this component. Implementation of the component will be the responsibility of NWA. The Ministry will closely cooperate with NWA. Within NWA the professional leadership of the project will be with Mr. András Magyarics, Senior Counsellor (Márvány u. 1/c., H-1012 Budapest, Tel: +361-225-4436, Fax: +361-212-0778, E-mail: ovfoig@mail.matav.hu), who will be supervised by the Dr. Miklós Varga, General Director of MWA. As the number of recipient units of the project is high, NWA will set up a small but powerful co-ordination unit in order to ensure smooth and efficient co-ordination and implementation. In the framework of twinning activity **PAA-1** will assist with the institutionalisation of accidental water pollution prevention. The beneficiary institution will be the NWA with Mr. András Magyarics as the main contact person.
**Component 2: MoE will fulfil overall technical supervision, co-ordination and management functions of this component. Implementation of the component will be the responsibility of the Department of Integrated Pollution Control of MoE. Within the Department the professional leadership of the component will be with Ms. Éva Deseo, Senior Counsellor (Tel.: +361-457-3300 ext. 234, Fax: +361-201-3056, E-mail: deseo@mail.ktm.hu), who will be supervised by Mr. Róbert Rakics, Head of the Department. PAA-2 will assist the introduction of ecological monitoring of surface waters and the quality assurance of monitoring surface waters and ground waters. The beneficiary institution of the twinning will be the Department of Integrated Pollution Control. The contact person is Ms. Zsuzsa Steindl, Head of the Monitoring Section (Tel.: +361-457-3300 ext. 464; Fax: +361-201-3056; E-mail: steindl@mail.ktm.hu).

The management of the project is the responsibility of the the MTWM, the project fiche and the common documents will be signed by both Ministries. To ensure the comprehensive supervision and multidisciplinary harmonisation of the implementation of the Water Framework Directive as well as effective co-ordination and supervision of the project and co-ordination with the other on-going twinning projects, a Steering Committee will be established which will be chaired by the Deputy State Secretary for EU Integration of MoE, Dr. Nándor Vass, and will include the SPOs, a representative of each of the Department of Water Management of MTWM, the Department of Integrated Pollution Control of MoE, NWA and NEI, as well as representatives of the EC Delegation and the CFCU as observers. The Deputy State Secretary for EU Integration of MTWM, Dr. Zoltán Kazatsay will act as SPO for the whole project.


6.3 Contracts:

One supply contract is necessary as follows:

#1: Procurement of response tools and equipment

Four service contracts are necessary as follows:

#1: Watershed contingency planning #2: Adaptation of new response technologies #3: IT application to support reporting and registration #4: Surveying surface and groundwaters

One works contract is necessary as follows:

1: Building/upgrading intervention points on rivers.

Two covenants are necessary for the twinning projects.

All procurement will be carried out according to the valid rules of Phare PRAG.

7. Implementation Schedule:

<table>
<thead>
<tr>
<th>Component</th>
<th>Start of tendering</th>
<th>Start of project activity</th>
<th>Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Accidental water pollution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Twinning - 1.</td>
<td>12/2001</td>
<td>06/2002</td>
<td>05/2003</td>
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<td>07/2003</td>
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<td>(f) Service contract: IT application to support reporting &amp; registration</td>
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<td>01/2003</td>
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<tr>
<td>2. Monitoring surface waters and groundwaters</td>
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<td>06/2002</td>
<td>05/2003</td>
</tr>
<tr>
<td>(b) Service contract: survey of surface waters</td>
<td>06/2002</td>
<td>12/2002</td>
<td>05/2004</td>
</tr>
<tr>
<td>(c) Service contract: survey of groundwaters</td>
<td>06/2002</td>
<td>12/2002</td>
<td>05/2004</td>
</tr>
</tbody>
</table>
The dates included in the detailed implementation schedule have to be all shifted considering June 2002 as the starting date of the twinning projects.

8. **Equal opportunity:** within the project equal opportunity will be given to women and men for participation. In all cases when nominations will be invited and/or selections will be made, the attention of nominating institutions and selection boards will be called to giving equal opportunity to women and men. Project statistics on the participation of women and men will be compared with employee statistics of nominating institutions.

9. **Environment:** the project contributes to meeting the requirements of the Water Framework Directive 2000/60/EC. It has no negative effect on environment. Preparation of an environmental impact assessment is not required.

10. **Rates of Return:** Not applicable.

11. **Investment Criteria**

11.1 **Catalytic Effect:** Without Phare support the envisaged development could be implemented only at a much later stage.

11.2 **Co-finance:** The project will be jointly co-financed between Phare and Government resources. The Phare amount is binding as a maximum amount available for the project. The ratio between the Phare and national amount is also binding and has to be applied to the final contract price. National co-finance contributions will amount to 25.1% of the project cost.

11.3 **Additionality:** No other financiers will be displaced by the Phare intervention.

11.4 **Readiness:** The legal framework required for project implementation are in place. Strategic analyses and plans are ready.

11.5 **Sustainability:** Relevant government measures ensure sustainability. All the participating institutions are in a position which allows them (i) to receive and utilise the twinning assistance and (ii) to operate and utilise efficiently the equipment to be procured under the proposed project. Operating costs will be covered from the budgets of the participating institutions.

11.6 **Competition:** Works, services and supply funded by Phare will be procured in line with the regulations of the PRAG.

12. **Conditionality and sequencing:**

Relying upon the preliminary studies and investigations the technical specifications and tender documentation can be prepared without delay.

**Annexes to Project Fiche**

1. Log-frame planning matrix of the project
2. Detailed implementation time chart
3. Cumulative contracting and disbursement schedule by quarter
4. Relation to other projects financed by Phare or from other sources
5. Reference to feasibility/pre-feasibility studies
6. List of EU Directives with relevance to the project
7. Institutional background
8. Indicative Equipment list
Log-frame Planning Matrix of Project ‘Support in the implementation of the Water Framework Directive’

<table>
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<tr>
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<tbody>
<tr>
<td>Total Budget: 7.761 m€</td>
<td>Phare contribution: 5.698 m€</td>
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</tbody>
</table>

**Overall Objective**

- To assist Hungary’s accession to the EU by contributing to the implementation of the Water Framework Directive (Council Directive 2000/60 EC) through the development of its (i) national accidental water pollution control system and (ii) monitoring system of surface waters and groundwaters.

**Objectively verifiable Indicators**

- Process of Approximation of laws in advanced stage by December 2003
- Characterisation and analysis of surface and groundwater by December 2003
- Implementation of national control system by December 2003

**Sources of Verification**

- Stage of Introduction of laws
- Annual summary report of MoE on the quality of waters;
- Minutes on pollution control of bilateral committees on trans-boundary waters.

**Assumption and Risks**

- Stable political and economical environment for sustainability of benefits.

**Project purpose**

- Strengthening prevention, intervention and mitigation capacities in the field of accidental water pollution control.
- Basic survey and quality assessment of surface water and groundwater bodies according to Annex 5 of the Water Framework Directive.
- Strengthening institutional capacities which are necessary to the introduction and implementation of the WFD, especially in the fields of (i) prevention of accidental water pollution by industrial and agricultural facilities through the gradual introduction of the ‘safety installation’ principle and (ii) introduction of ecological monitoring of the quality of surface waters and (iii) quality assurance of monitoring surface waters and groundwaters.

**Objectively verifiable Indicators**

- Response times reduced to EU average by April 2005
- Intervention costs and damage reduced to EU average by 2005

**Sources of Verification**

- Inspection reports of Territorial Directorates of NWA;
- Final reports of intervention of the Territorial Directorates of NWA.

**Assumption and Risks**

- Commitment of the Hung. Gov. to the timely and successful completion of the pre-accession process;
- Continuing good co-operation among the water management and environmental agencies and organisations concerned.

**Results (outputs)**

- Territorial watershed contingency plans are available;
- Reporting and registration system is up to the requirements and is supported by a suitable IT application;
- New accidental pollution response technologies are introduced;
- Accidental pollution response equipment is upgraded;
- No. of damage control points on rivers increased & existing ones upgraded;
- Assessment of ecological & chemical status of surface waters completed;
- Scientific basis established for the designation of reference areas;
- Assessment of the chemical status of groundwaters completed;
- Criteria are available for the qualification of waters;
- Institutionalisation and training activities of twinning are completed.

**Objectively verifiable Indicators**

- All equipment, instruments and response tools/materials are in place and operational;
- 40 contingency plans are fully completed;
- Reporting & registration and licensing system is operational;
- Database and evaluation on the quality of surface and groundwaters;
- NWA, TDs, NEI and TEIs staff are trained.

**Sources of Verification**

- Equipment & instrument commissioning protocols;
- Take-over protocols of intervention sites;
- Protocols of approval of contingency plans by NWA;
- Take-over protocols of surface water and groundwater assessment reports;
- Training reports;
- Twinning report;
- Project progress reports.

**Assumption and Risks**

- Provision of sufficient operational budget to cover increased scope;
- Sufficient number of staff is available on the long term;
- Suitable twinning partner located and covenanted.

**Activities (to be filled)**

**Means**

**Assumption and Risks**
Log-frame Planning Matrix of Project ‘Support in the implementation of the Water Framework Directive’

<table>
<thead>
<tr>
<th>Overall Objective</th>
<th>Objectively verifiable Indicators</th>
<th>How, When and By Whom Will Indicators Be Measured</th>
<th>Sources of Verification</th>
<th>Assumption and Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1:</td>
<td>• Procurement of equipment by May 2004;</td>
<td>• Contract Documents</td>
<td>• Timely availability of the necessary local funding;</td>
<td></td>
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<tr>
<td></td>
<td>• Expert services to prepare assessments, plans, registries, IT application by May 2004</td>
<td>• Twinning covenant</td>
<td>• Adequate co-operation between the participating two ministries.</td>
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<tr>
<td></td>
<td>• Works to build/upgrade intervention sites on rivers by October 2004;</td>
<td>• Inspection reports</td>
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<td></td>
<td>• Twinning assistance (including training) by October 2003.</td>
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</table>

Component 2:
• Assistance in the preparation of the implementation of quality assurance of monitoring of surface waters and ground waters,
• Promote the activities on the field of water monitoring in harmony with the Annex V. of the WFD
• Carrying out a basic survey of the ecological and chemical status of surface waters
• Carrying out a survey of the chemical status of groundwaters

Precondition

<table>
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<tr>
<th>Precondition</th>
<th>Phare funding: 6.878 m€</th>
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<td>Local funding: 2.307 m€</td>
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# Detailed Implementation Schedule

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<th>Description</th>
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<th>2004</th>
<th>2005</th>
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<td></td>
<td>F/M/A/M/J/A/S/O</td>
<td>J/F/M/A/J/A/S/O</td>
<td>J/F/M/A/J/A/S/O</td>
<td>J/F/M/A/J/A/S/O</td>
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<tr>
<td>1. Accidental water pollution</td>
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<tr>
<td>(a) Twinning - 1</td>
<td>T T T T T T T T</td>
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<tr>
<td>(b) Service contract: watershed contingency planning</td>
<td>P P P P P P P T T T T T</td>
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<td>(c) Supply contract: response tools &amp; equipment</td>
<td>P P P P P P P P</td>
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<tr>
<td>(d) Service contract: adaptation of new response technologies</td>
<td>P P P P P P P P</td>
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<tr>
<td>(e) Works contract: building/upgrading intervention points on rivers</td>
<td>P P P P P P P T T T T T</td>
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<tr>
<td>(f) Service contract: IT application to support reporting &amp; registration</td>
<td>P P P P P P P P</td>
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<tr>
<td>2. Monitoring surface waters &amp; groundwaters</td>
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<tr>
<td>(a) Twinning - 2</td>
<td>T T T T T T T T</td>
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<tr>
<td>(b) Service contract: survey of surface waters</td>
<td>P P P P P P P T T T T T</td>
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<tr>
<td>(b) Service contract: survey of groundwaters</td>
<td>P P P P P P P P</td>
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Legend:  
- **P** = Planning  
- **T** = Tendering  
- **I** = Implementation
## ANNEX 3

### CUMULATIVE CONTRACTING AND DISBURSEMENT SCHEDULE

(million Euro)

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<tr>
<td>CONTRACTED</td>
<td>1.000</td>
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<td>4.046</td>
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<td>5.698</td>
<td>5.698</td>
<td>5.698</td>
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<td>5.698</td>
<td>5.698</td>
<td>5.698</td>
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<tr>
<td>DISBURSED</td>
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<td>0.625</td>
<td>1.359</td>
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<td>5.139</td>
<td>5.599</td>
<td>5.648</td>
<td>5.698</td>
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</tbody>
</table>
ANNEX 4

RELATION TO OTHER PHARE PROJECTS
AND OTHER ONGOING PROJECTS FINANCED FROM OTHER SOURCES

**Phare projects:**

(i) HU-903 Master plan Study for Surface Water Monitoring dealt with the development of the National water flow monitoring network. New automatic water-gauge stations were settled. The project was continued in

(ii) HU-905 project, where the water quality monitoring was in the focus (as a continuation of HU-903). there were examined the possible consequences of the development of automatic water quality monitoring stations. As a consequence six automatic monitoring stations have been built in parallel projects with international help.

The projects mentioned do not deal with accidental pollution monitoring directly, but they provide good basis for development of the accidental pollution warning system, as usually the water gauge stations are the best places for development of the warning stations.

(iii) HU-901 Water Quality Management and Legislation in Hungary – a River Basin Approach dealt with the possible development oh the Hungarian water legislation taking into consideration the EC Water Framework Directive (which was in draft form at that time). All the possible policy and legislative tools were examined from the point of view of possible adaptation.

The accidental water pollution issue was one of the several tasks to be managed in the project. But the project gave the basis partly for the development of the accidental pollution legislation, including the 132/1997.(VII. 24.) Korm. 21/1999. (VII. 22.) KHVM-KöM, 3/1999.(K.H.V. Ért. 15.) KHVM-KöM decrees (Details are in Annex 6/a).

(iv) HU/IB/2001/EN/01 Twinning project ”Implementation of the community environmental legislation”

The aim of the above twinning project is, inter alia, to develop two pollution reduction programmes, specifically for dangerous substances. The first one is for one specific pollutant for the whole territory of Hungary, while the other one for a single river whose whole water basin is within the territory of Hungary. There are two rivers of latter kind in Hungary both of them have small water basin areas (in terms of km2). Consequently, these projects are pilot ones. These tasks require pollution-source approach.

The MTWM project aims at the prevention of and response to accidental pollution of surface water which is distinct from a pollution reduction programme as the latter focuses on pollution from regular activities.

(v) HU/IB/2001/EN/04 Twinning project ”Implementation of the IPPC Directive (96/61/EC)”

The main project components covered by this twinning are:

- elaboration of a Vademecum which describes the methodology of collection, processing and dissemination of data.
- elaboration of the Guidelines for integrated environmental permit application and the decision making procedure.
- elaboration of National Technical Guidance Notes for the selected branches of industry being subject to the IPPC directive concerning the usage of the best available techniques
- elaboration of training programmes for the staff of the responsible institutions dealing with the implementation of the IPPC Directive,
REFERENCE TO FEASIBILITY/PRE-FEASIBILITY STUDIES

1. Proposal on the legislative bases of accidental pollution prevention and response activities in Hungary (1996.)
3. Proposal on the technical content of watershed accidental pollution contingency plans. (1997.)
4. Harmonised contingency plan on the joint Hungarian and Slovakian watershed of the Bodrog river (1998.)
5. Pilot watershed contingency plan on the watershed of the Séd-Nádor water system (1999-2000.)
6. National Programme on Accidental Pollution Contingency Planning, I phase. (2000.) Contingency plans on 7 watersheds – around 15% of the territory of Hungary
8. Development of Environmental Monitoring Phase II. – ongoing to be prepared by the end of 2001
LIST OF THE RELEVANT HUNGARIAN LAWS AND REGULATIONS

Act LVII of 1995 on water management

Act LIII of 1995 on general regulation of environmental protection

Act LXXIV of 1999 on control and organisation of protection against catastrophes and on protection against serious accidents with dangerous materials

Government Decree 2094/2001 on the implementation of the Water Framework Directive

Government Decree 179 of 1999 (XII.10.) on the execution of Act LXXIV of 1999

Joint Decree 21 of 1999 of the Ministry of Transportation, Communication and Water Management and the Ministry of Environment on the rules of the implementation, maintenance and modernisation of the industrial plans connected to water pollution response

Joint directive 2 of 1999 of the Ministry of Transportation, Communication and Water Management and the Ministry of Environment on the territorial plans of water pollution response

Directive 3 of 1999 of the Minister of the Transportation, Communication and Water Management on operational rules and reporting order of water surveying service of water pollution response

Government Decree 33/2000 (III.17) on activities that affect the quality of groundwater
LIST OF THE MOST IMPORTANT EU DIRECTIVES IN RELATION TO THE TASKS OF ACCIDENTAL WATER POLLUTION CONTROL AND MONITORING REQUIREMENTS OF WATERS


79/869/EEC Council Directive concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States


Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources;
INSTITUTIONAL BACKGROUND

Institutional background of Component I

The Act XXXVIII of 1992 on state administration, further the Act LVII of 1995 on water management have assigned responsibility for the state functions of water management to the Ministry of Transport and Water Management.

The Ministry of Environment (MoE) performs the central management of the environmental protection and nature conservation. The MoE co-ordinates the assessment and evaluation of the status of environment and nature as well as the measuring, monitoring, analysing and evaluating systems.

Under the Law Decrees 72/1996. (V.22.) and 234/1996. (XII. 26.), the authority functions of water administration are performed under the control and supervision of the minister by a separate central agency, the National Water Authority (NWA) and the local agencies thereof, the Territorial Water Management Directorates (TWMDs), further the Central Non-Profit Organisation for Flood and Drainage Emergency Operation (CNOFDEO), which operates as a public utility company. The powers of the TWMDs extend to the entire territory of the country.

The water management functions of NWA comprise:

- Supervision and co-ordination of the professional activities of the district water authorities;
- Involvement in the professional preparation of acts of legislation related to water management, cooperation in the preparation and implementation of government water projects and programs as set forth by the ministry responsible for water management (hereinafter: the ministry);
- Co-ordination and supervision of the operation of the tools, equipment and machinery earmarked for emergency – including water pollution – emergency operations, of the icebreaker fleet and the communication network of the water agencies. Preparation of development proposals, implementation of the approved developments, improvement of technological processes;
- Involvement in performing the functions arising from international water management agreements in the fields of flood- and inundation control, water pollution and nuclear accidents, co-ordination of the emergency operations of the district water authorities;
- Organisation of preparations for major water emergencies, guidance of the control operations.

Professional supervision of the activities of the twelve TWMDs and the CNOFDEO is provided by the NWA, which is obliged to report to the ministry.

The water management functions of the TWMDs comprise:

- Conservation of the use potential of waters, in the interest thereof regular supervision of the uses of natural waters, prevention, minimisation and control of any quality deterioration liable to impede such uses;
- Operation of their laboratories to support the performance of their functions in hydrography, water management and water quality emergency control;
- Performance of the functions related to flood- and inundation control, further to water pollution accidents, in particular
  - guidance and performance of the technical and administration functions of emergency control,
  - planning, organisation and guiding technically the local operations of emergency control,
  - guiding the emergency control operations of the local self-governments and water associations,
- co-ordination of the construction, improvement of control structures, performance of the project management functions.

- Implementation of the water pollution emergency control measures, including operative guidance and performance of such activities;

- Keeping in good operating order the machinery, equipment, pumps, transport vehicles, fleet of vessels earmarked for use in emergency operations.

CNOFDEO is subordinated directly to NWA and not attached to any regional agency. Its mandate is to perform special tasks, which surpass the normal level of flood- and water pollution control operations. The units can be deployed anywhere in the country to implement emergency measures alone, or in co-operation with TWMDs.

The procedure to be followed in controlling water pollution accidents is set forth in the Act LVII of 1995 on water management.

In the Law Decree 132/1997. (VII.24.), the functions associated with water pollution accidents are detailed and assigned to the water and environmental protection agencies.

The functions associated with controlling water pollution accidents include the following activities:

- Preparation
- Detection of pollution and identification of the pollutant(s)
- Implementation of the control measures
- Follow-up actions.

The functions associated with controlling water pollution accidents are allocated to the water- and environmental protection agencies as follows:

- The locally competent water- and environmental agencies (the territorial water authority – TWMDs – and the Regional Environmental Inspectorates – REIs) co-operate in making preparations for water pollution emergencies;

  In its particular area of competence the REIs are responsible for identifying and registering the potential sources of pollution, further for making these data available to the TWMDs. The latter, in turn, furnishes regularly to the REIs the hydrologic and hydrographic data for its files. The control measures to be taken in emergencies are implemented according to plans broken down to industrial plants and area levels.

  The area-level plans apply to a particular catchment area, or a sub-catchment. These plans contain all data and detailed plans needed to speed up implementation and improve the effectiveness of emergency control measures.

  The TWMDs is responsible for storing and keeping in ready-to-use condition the emergency equipment and materials. For the purposes of training and updating the workforce assigned to the emergency organisation, emergency manoeuvres are organised and held regularly.

- The water and environmental protection agencies share the responsibility of detecting and identifying pollution accidents. For this purpose an observation network comprising the levee-, river channel- and canals rangers of the TWMDs, further the standard monitoring stations – including the also the automatic sampling stations – of the REIs are operated. Information on any water pollution accident is communicated without delay to the other agency and parties potentially affected. The investigation into the case is conducted jointly by the TWMDs and the REIs.

  The hydrochemical analyses needed for deciding on the emergency measures are performed by the REIs. The mobile laboratories of the water agencies are suited to detecting a narrower sphere of pollutants only and are used for prompt, decision-supporting analyses. The decision on the general nature of pollution and on the need of emergency action is taken by the REIs.
• The emergency measure(s) are selected, implemented and guided by the locally competent agency of water administration, the TWMDs.
• Following emergency action (elimination, passage downriver of the pollutant) the agencies involved are obliged to restore normal stand-by conditions, restock the materials used and to clean, service their equipment.

For performing their emergency functions, the TWMDs and the REIs must rely primarily on their own resources (materials, equipment, and manpower), resorting to those of other water- and environmental protection agencies only in cases of major emergency.

Institutional background of Component 2 (is under preparation)

The Ministry of Environment (MoE) performs the central management of the environmental protection and nature conservation. The MoE co-ordinates the assessment and evaluation of the status of environment and nature as well as the measuring, monitoring, analysing and evaluating systems inter alia
• is in charge of environmental protection shall analyse and shall evaluate:
  • the state of the environment and the state of affairs of the protection thereof,
  • the processes of the management of natural resources,
  • the experiences of the protection, regulated use and planned development of the environment,
  • the prevention of the development of environmental emergencies as well as the professional environmental protection activities aimed at the defusing of environmental emergencies and disasters, in co-operation with the competent organs;
  • shall work out a Draft Programme and shall submit it to the Government on the basis of the experiences of the evaluation
  • shall participate in the development of the conceptions of professional policy on the use of the natural resources;
  • shall participate in the development and operation of a special environmental protection curriculum and qualification system.

158/1998 (IX.30.) Government Decree
The Minister in order to protect surface and groundwaters with respect to both quality and quantity
a) determines the criteria of assessment and those of research and exploration from environmental and nature protection point of view
b) determines the environmental and nature protection criteria of interference into waters and implements them
c) determines the environmental criteria of data collection, storage and processing on water, directs the environmental assessment of waters
d) determines – in co-operation with the relevant Ministers- the value data of dangerous substances
e) elaborates the regulation and criteria for the protection of waters
f) is responsible for the implementation of authority tasks as mentioned above
g) determines the tasks concerning the environment to be carried out in case of accidental water pollution, monitors its implementation
h) monitors and promotes water management activities aiming better state of environment
i) elaborates and monitors pollution reduction programmes endangering waters

132/1997 (VII.24.) Government Decree on the prevention and elimination of water damage
The Regional Environmental Inspectorates have to assess and register the possible sources of pollution that could significantly endanger the quality of water in that specific region. The unified storage of data on the prevention and elimination of water damage is carried out by the Regional Environmental Inspectorates. All data must be made available for the Water Directorates.
Concerning the accidental pollution, the Water Directorates manage monitoring system and the Regional Environmental Inspectorates manage measuring-monitoring system.
Institutional Background of Accidental Water Pollution Control

Ministry of Transport and Water Management (MTWM)

National Water Authority (NWA)

Central Non-Profit Organisation for Flood and Drainage Emergency Operation (CNOFDEO)

Territorial Water Management Directorates (12) (TWMDs)

Ministry of Environment (MoE)

National Inspectorate for Environmental Protection and Nature Conservation (NIEPNC)

Regional Environmental Inspectorates (12) (REIs)

Note: operational links between the institutions
# ANNEX 8 - Indicative Equipment list

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