

European Danube Region Strategy EDRS	
Priority	I. Strengthening the security of the Danube region within countries and across borders
Name of the programme	2. Sustaining the values of our living waters in the Danube river basin – protection – management – mitigation “Pure Water”
<i>The preliminaries, justification and objective of the programme</i>	<p>Preliminaries: At the level of the Danube river basin, the implementation of tasks related to the protection of living waters, in accordance with the Water Framework Directive (WFD), is coordinated by ICPDR. The Danube River Basin Management Plan (DRBMP) has been worked out and the Tisza Sub River Basin MP is being worked out within the framework of the above, specifying the actual measures to take. Concurrently with the implementation of the WFD, the requirements of the Flood Control Directive and the ICPDR Action Programme for Sustainable Flood Protection are also being implemented. Within the framework of the latter, in view of the EU Flood Directive and the Water Framework Directive, the Action Plans for Flood Protection for the 17 sub river basins of the Danube were completed by the end of 2009. From these, Hungary participated in the preparation of four and coordinated the completion of two. Hungary had a leading role in the coordination at the level of the Danube river basin.</p> <p>Flood protection is of special importance, especially in Hungary, and due to the flood events of the past ten years, it has become a focus of attention in the whole Danube river basin.</p> <p>Justification: Fresh watercourses and underground waters represent immeasurable values. The consequences of climatic change and societal-economic changes are likely to put a growing burden on our water supplies in future. The quantitative and qualitative preservation as well as sustainable utilisation of these values require large scale cooperation between both the various branches of the economy and the countries concerned.</p> <p>Objective: Harmonising the water management related activities of the countries of the river basin; strengthening cross-border programmes. Within the framework of these, special emphasis should be given to: the quantitative-qualitative protection of water supplies, flood protection, protection against drought and the protection and development of river sections and water systems representing special ecological, societal and economic problems and opportunities. It is necessary to establish uniform base Danube information systems by producing data sets of a required frequency for the international division of water supplies, protection against flood damage and for water management and river basin planning.</p> <p>Among countries on the Danube, Hungary has a special position since we have the biggest freshwater supply in the Carpathian Basin and one of the biggest in Europe, so the preservation of this is a task of high priority for the country. The bilateral cooperation of neighbouring countries in water management is an issue of high importance in the Danube river basin considering the high number of countries sharing the river basin. It is thus necessary to support these cooperations within the framework of the programme.</p>

<p><i>The content of the programme (subprogrammes)</i></p>	<p>2.1. DANUBE RIVER BASIN MANAGEMENT – Attaining a good ecological status within the framework of a harmonised river basin management of countries in the Danube river basin, including guaranteeing a good status of surface waters (high priority river sections, regional water systems) and underground waters, by the projects with the following contents, e.g.:</p> <ul style="list-style-type: none">• Projects aimed at curtailing water pollution (e.g.: developing sewage management and waste management)• Projects improving the hydromorphological state of watercourses and still waters• Projects aimed at establishing sustainable water utilisations (water base and drink water quality protection, agricultural water management)• Projects aimed at the management of quantitative and qualitative problems related to cross water surface and underground waters• Projects related to the management of water supplies (establishing the conditions of water retention, constructing water substitution systems, enlarging double-operation water retention-water substitution systems) in high priority sub river basins (by regional development adjusted to water supplies, granting water supply preservation) <p>Such as, e.g.:</p> <p>2.1.1. Implementation of WFD-RBMP Measure Programmes – Danube River Basin</p> <p>2.1.2. Implementation of WFD-RBMP Measure Programmes – Completion and implementation of the integrated river basin management plan of the Tisza</p> <p>2.1.3. Prevention of pollution spreading across borders</p> <p>2.1.4. Improving water supply in Szigetköz (Upper Hungarian Danube Region)</p> <p>2.1.5. Rehabilitation of Ferenc canal (Baja-Bezdán canal)</p> <p>2.2. HARMONISED FLOOD PROTECTION IN THE DANUBE VALLEY – Projects related to identifying risks and creating security, with the following contents</p> <ul style="list-style-type: none">• Uniform European risk and security identification along the river• Establishing a harmonised flood protection in Danube river basin countries, enhancing security by cross-border cooperation• Establishing common flood protection information systems and open data bases• Interconnecting and jointly assessing the established model systems• Forming a management concept for flood (high tide) basins <p>Such as, e.g.:</p>
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	<p>2.2.1. DKMT RESCUE, Cross Border Cooperation Programme 2.2.2. Interconnecting the model systems of rivers 2.2.3. Harmonised management of high water river beds 2.2.4. FLOOD RESCUE MODULE European rapid reaction capability 2.2.5. Uniform European risk and security identification along the river 2.2.6. Establishing and setting into a system common flood protection databases</p> <p>2.3. UNIFORM BASE DANUBE INFORMATION SYSTEMS – Projects related to monitoring and assessment, in the following fields</p> <ul style="list-style-type: none"> • Further development of the uniform informatics system of ICPDR • Harmonisation/ Interconnection of the monitoring and assessment systems • Establishing relations between specialised institutions in the Danube Valley and interconnecting their operation • Promoting social responsibility, attitude formation for the creation of a uniform Danube river basin attitude (specialised water management training, Danube Day, Danube knowledge base) <p>Such as, e.g: 2.3.1. “Radiological control of the Danube ” 2.3.2. Process assessment of changes in river sediments in the Danube river basin</p>
<i>Other countries potentially affected</i>	Germany, Austria, Slovakia, Romania, Bulgaria, Slovenia, (countries under the WFD), the Ukraine, Croatia, Serbia
<i>Obligation (in terms of law etc.)</i>	<p>The UN EEC Convention “On the Protection and Use of Transboundary Watercourses and International Lakes” passed in Helsinki on March 16, 1992. The Convention “On the Protection and Sustainable Use of the Danube” signed in Sofia on June 29, 1994. Water Framework Directive (WFD) 2000/60/EC: Under the obligations of the Directive, Member States of the European Union shall restore the good conditions of their surface and underground water supplies by 2015. In accordance with the framework directive, “good conditions” do not only mean that the water is clean but also that water-related habitats are in a state as undisturbed as possible and dispose of the water supply required. Directive 2007/60/EC on the Assessment and Management of Flood Risks: for the assessment and management of flood risks, mitigating flood-related harmful influences on human health, the environment, the cultural heritage as well as on economic activities; educating the population and raising awareness of dangers; information transfer; involving the population in preliminary surveys and decision making; mitigating damage caused by flood, inland water or local water damage. Action Plan COM(2006) 216 for halting the loss of biodiversity by 2010 and beyond</p>

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	92/43/EEC and 97/62/EC, 1882/2003 – Habitats Directive (nature conservation directive) and its amendments, Natura2000
<i>Complimentarity with the Danube strategy</i>	<p>I.A Protecting the values of the natural environment:</p> <ul style="list-style-type: none"> ▪ establishing a common water basin and water supply management; ▪ improving the conditions for drink water quality protection; ▪ preventing the spreading of pollution (air, water, noise) across borders <p>I.C Improving societal economic security:</p> <ul style="list-style-type: none"> ▪ protection against catastrophe (especially water damage, i.e. flood-inland water-drought damage or damage in water quality)
<i>Parties affected by the programme (target group, beneficiaries, cooperating parties)</i>	<p>beneficiaries: the whole population cooperating parties: relevant authorities of member states, local governments target group: enterprises disposing of the relevant technical capacity</p>
<i>Vision/effects/results</i>	<p>According to the January 12, 2010 stance of the National Sustainable Development Council, “the most important visions at the Danube river basin level are the following:</p> <ul style="list-style-type: none"> • raw material pollution: unpurified sewage shall not be discharged into waters anywhere in the whole Danube river basin, • nutriment pollution: nutriment discharge from point and non-point sources shall be regulated in the whole Danube river basin in a way avoiding a danger of eutrofisation both in the waters of the river basin and the water of the Black Sea , • pollution by dangerous materials: there shall be no such danger in the Danube river basin or the part of the Black Sea affected by the water of the Danube to human health or the conditions of water habitats, • hydromorphological changes: these shall be managed in a way that the past, current or future hydromorphological changes in the river shall not prevent the migration and spawning of fish anywhere in the whole Danube river basin, • the connection of flood plains and water habitats to the Danube: in the whole Danube river basin, these shall be re-connected to the river and rehabilitated. The integrating function of these areas along the river will guarantee the survival of self-supporting coexistent water species, flood protection as well as pollution control in the Danube river basin, • hydrological changes: these shall be managed in a way to avoid any damage to the natural development and diversity of water habitats,

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	<ul style="list-style-type: none"> • infrastructure projects to be implemented in future: these shall be implemented transparently, with the application of the best environmental practice and the best potential technologies in the whole river basin, preventing the deterioration of good conditions and cross border effects and mitigating or compensating for negative effects, • pollution material emission to underground waters: these shall not worsen the conditions of underground waters anywhere in the whole Danube river basin and in places where the underground water has already been polluted, the aim is to restore good conditions, • the use of underground waters: this will not surpass the volume of sustainably used water supplies at our disposal anywhere in the Danube river basin.” <p>Flood protection security shall be enhanced in the area of the Danube river basin. The water systems established are suitable for draining floods and for retaining water in periods of drought.</p>
<i>The source of the financing of the programme</i>	Cohesion Fund and European Regional Development Fund
<i>Term of implementation</i>	<p>River basin management until 2027, according to continuous, 6-year river basin management cycles (2015, 2021, 2027)</p> <p>A harmonised flood protection can be implemented according to a plan of measures designed on the basis of risk identification, the first step of which is to determine common (cross-border) developments. Activity shall be continuous, especially considering the changing environmental, societal and economic conditions.</p> <p>The scheduled implementation deadline of actual flood protection investments in Hungary is 2013. Further flood protection developments are expected in the next planning cycle, which are under preparation currently already.</p> <p>The establishment of a uniform monitoring network adjusted to the implementation of the river basin management plans.</p>
<i>The level of preparedness of the programme (permits, plans, expected time of start, etc.)</i>	<p>According to the Water Framework Directive, member states have designed their river basin management plans, the harmonisation of which is necessary. The existing monitoring systems need to be extended and harmonised.</p> <p>The establishment and sustainment of flood protection shall proceed at the level of member states and within the framework of existing cooperations; in Hungary, its development has been continuous.</p> <p>Drought management shall proceed according to the White Book of the EU and the Climate Directive to be worked out as a further development of the former. The pilot projects shall be implemented by 2013.</p> <p>The establishment of common monitoring can be started within the framework of border water cooperations, using the experience of the Water Framework Directive.</p>
<i>Relationship with other programmes</i>	<p>5. Biodiversity along the Danube</p> <p>6. Green Economy along the Danube</p>

	7. Mitigating the effects of climatic change in the Danube river basin 12. Tourism from the Black Forest to the Black Sea
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	European Danube Region Strategy EDRS
Name of subprogramme	2.1. DANUBE RIVER BASIN MANAGEMENT
Name of the project	2.1.1. Implementation of the Water Framework Directive – River Basin Management Plan (WFD-RBMP) Action Programmes – Danube River Basin
<i>Potentially affected countries</i>	Countries of the Danube river basin
<i>Territorial limitation</i>	Danube river basin
<i>Preliminaries, justification and objective of the project</i>	Under the obligations of the Water Framework Directive (WFD) 2000/60/EC, Member States of the European Union shall restore the good conditions of their surface and underground water supplies by 2015. In justifiable cases, the deadline can be extended to 2021 or 2027. WFD determines the tasks and obligations to meet in order to reach the target. These include as parts of the national river basin management plans designed by December 22, 2009, the measure programmes the implementation of which may guarantee the meeting of environmental goals aimed at the restoration of good conditions.
<i>Obligation (in terms of law, etc.)</i>	Water Framework Directive 2000/60/EC
<i>Common interests of the Danubian Member States</i>	It is a common interest of the countries of the Danube river basin to perfectly implement the national WFD measure programme packages.
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	the total population of Danube river basin countries, including Hungary
<i>The content of the project</i>	ongoing continuously until 2027, according to the 6 year river basin management planning cycles, with interim deadlines of 2015, 2021 and 2027, with an obligation to report to the European Union on the implementation of plans and the specified measure programmes for the next interim period
<i>Vision/effects/results</i>	all surface waters in Hungary shall get into a good ecological and chemical condition; all underground waters shall get into a good quantitative and chemical condition
<i>Cost requirement of the project</i>	The WFD-RBMP Measure Programme is a programme package that includes all regulatory, institutional development, institution operational and investment programmes and projects that contribute to improving the conditions of waters. Thus the total cost requirement is the sum of the cost requirements of all projects, which can only be made estimations on in the planning phase. The specification of the sum is being currently worked on during the making of the national river basin management plan and shall be available by the end of 2009.
<i>The term of implementation</i>	ongoing continuously until 2027; within the project package, the implementation deadline of the individual projects shall be specified in the case of the actual projects concerned

<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	During the preparation of the river basin management plan meeting the WFD, the public had the chance to give their opinions on the proposal until November 18, 2009. The plan was completed by December 22, 2009, after which public administrative discussions were assumed on the plan.
	European Danube Region Strategy EDRS
Name of subprogramme	2.1. DANUBE RIVER BASIN MANAGEMENT
Name of the project	2.1.2. Water Framework Directive – The completion and implementation of the Tisza Integrated River Basin Management Plan
<i>Potentially affected countries</i>	the 5 countries of the Tisza river basin
<i>Territorial limitation</i>	total area of the Tisza river basin
<i>Preliminaries, justification and objective of the project</i>	<p>Under the obligations of the Water Framework Directive (WFD) 2000/60/EC, Member States of the European Union shall restore the good conditions of their surface and underground water supplies by 2015. In justifiable cases, the deadline can be extended to 2021 or 2027, until the end of the following two planning cycles. Under the WFD, River Basin Management Plans were to be designed, at the national level, for river basins and sub river basins, specifying the actual measures and measure programmes by the implementation of which the good conditions could be restored. The Tisza Team operating within the framework of the International Commission for the Protection of the Danube (ICPDR) since 2005 is to finalise the integrated river basin management plan for the whole Tisza river basin by the end of 2010, which is special in that quantitative and qualitative issues (e.g. likely effects of climatic change, drought, flood) are managed together.</p> <p>The Plan referred does not only deal with the protection of waters but also with the measure programmes necessary for meeting the water-related economic and social needs of society. This could be exemplary for other sub river basins within the Danube river basin or could bring results extendable to other river basins in the EU. At the same time, it is also a good example for cooperation between EU and non-EU states.</p>
<i>Obligation (in terms of law, etc.)</i>	<p>Hungarian acts harmonising the Water Framework Directive 2000/60/EC, primarily Act 53/1995 on the protection of the environment, Act 57/1995 on water management and Government Order 221/2004 (VII.21.) on certain rules of river basin management</p> <p>The Convention on “The preservation and sustainable use of the Danube” signed in Sofia on June 29, 1994.</p> <p>Directive 2007/60/EC on the Assessment and Management of Flood Risks: for the assessment and management of flood risks, mitigating flood-related harmful influences on human health, the environment, the cultural heritage as well as on economic activities; educating the population and raising awareness of dangers; information transfer; involving the population in preliminary surveys and decision making; mitigating damage caused by flood, inland water or local water</p>

	damage.
<i>Common interests of the Danubian Member States</i>	Tisza is the most important sub river basin of the Danube. The international cooperation ongoing here is an organic part of the implementation of the WFD at the Danube river basin level. It is the interest of all Tisza countries to harmonise and jointly implement the national WFD measure programme packages and to adjust these to Danube level programmes.
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	Tisza sub river basin; about two thirds of the area of Hungary Cooperating parties: representatives of the relevant high authorities of Slovakia, The Ukraine, Romania and Serbia as well as the international organisations supporting the work (EU Commission, WWF, UNDP, GEF, REC)
<i>The content of the project</i>	ongoing continuously until 2027, according to the 6 year river basin management planning cycles, with interim deadlines of 2015, 2021 and 2027, with an obligation to report to the European Union on the implementation of plans and the specified measure programmes for the next interim period. The integrated RBMP includes measures for the management of the shortage of water, drought, climatic change, etc. and for providing the necessary water supply for branches of the economy.
<i>Vision/effects/results</i>	all surface waters in Hungary shall get into a good ecological and chemical condition; all underground waters shall get into a good quantitative and chemical condition
<i>Cost requirement of the project</i>	The WFD-RBMP Measure Programme is a programme package that includes all regulatory, institutional development, institution operational and investment programmes and projects that contribute to improving the conditions of waters. Thus the total cost requirement is the sum of the cost requirements of all projects, which can only be made estimations on in the planning phase. The specification of the sum is being currently worked on during the making of the national river basin management plan and shall be available to add up in the integrated plan.
<i>The term of implementation</i>	ongoing continuously until 2027; within the project package, the implementation deadline of the individual projects shall be specified in the case of the actual projects concerned
<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	The Hungarian national level river basin management plan meeting the WFD has been designed for the Tisza sub river basin as well. The first version of the Integrated Tisza River Basin Management Plan is to be finalised in April. Following social discussions, the plan is to be completed by the end of 2010.

	European Danube Region Strategy EDRS
Name of subprogramme	2.1. DANUBE RIVER BASIN MANAGEMENT
Name of the project	2.1.3. Prevention of pollution spreading across borders
<i>Potentially affected countries</i>	Hungary, Serbia
<i>Territorial limitation</i>	
<i>Preliminaries, justification and objective of the project</i>	
<i>Obligation (in terms of law, etc.)</i>	
<i>Common interests of the Danubian Member States</i>	<p>Extending cooperation in monitoring rivers and streams in border regions: There has been ongoing cooperation between the two countries through the Hungarian-Serbian Water Technical Joint Committee, within which the monitoring of waters near the Hungarian border (Danube, Plazovic, Tisza) has been managed by the Subcommittee of Water Quality.</p> <p>Water samples are collected and analysed by the laboratory of the Serbian National Hydrometeorological Institute based on a programme discussed and approved by both countries. Data exchange between the two parties takes place once a year. Beyond this well operating programme, it would be necessary to establish a practice creating opportunity for filtering random water pollutions or those caused by floods or industrial accidents and for reacting to these.</p>
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	Hungarian-Serbian Water Technical Joint Committee
<i>The content of the project</i>	Extending cooperation to filtering random water pollutions or those caused by floods or industrial accidents in rivers or streams in the border regions and to reacting to these.
<i>Vision/effects/results</i>	A fruitful cooperation in perceiving random pollution events and in taking the relevant measures necessary.
<i>Cost requirement of the project</i>	-
<i>The term of implementation</i>	-
<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	-

	European Danube Region Strategy EDRS
Name of subprogramme	2.1. DANUBE RIVER BASIN MANAGEMENT
Name of the project	2.1.4. Improving Water Supply in Szigetköz (Upper Hungarian Danube Region)
<i>Potentially affected countries</i>	Hungary, Slovakia
<i>Territorial limitation</i>	the river section of common interest
<i>Preliminaries, justification and objective of the project</i>	In accordance with the resolution of the Hague Court in the Bős-Nagymaros Case, the two countries must find a common solution for the use of the shared section of the Danube and the resolution of water management issues. Within the framework of this, Hungary has worked out a feasibility study. The aim of the project is to select the best possible solution and improve water supply in Szigetköz (Upper Hungarian Danube Region).
<i>Obligation (in terms of law, etc.)</i>	The Water Framework Directive 2000/60/EC. The Hague Resolution
<i>Common interests of the Danubian Member States</i>	It is the task of the two countries to adequately use the shared river section. The sustainable management of our waters is a societal value.
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	The population of Hungary and Slovakia along the Danube, the responsible state organs in authority of water management (water directorates) and research institutes.
<i>The content of the project</i>	cf. the Justification of the project. In addition to the above, the discussion of water management issues in the river section under Szigetköz.
<i>Vision/effects/results</i>	The ecological condition of Szigetköz will improve. The ecological potential of the shared river section of common interest will improve.
<i>Cost requirement of the project</i>	Precise cost estimations have not been made; the estimated costs required: EUR 1 million
<i>The term of implementation</i>	The investigation may take 4-5 years, after which implementation can be started.
<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	Hungary has worked out detailed plans for the preparation of the solution (Ministry of Environment Protection and Water Management). It is necessary to select and implement the best alternative.

European Danube Region Strategy EDRS	
Name of subprogramme	2.1. DANUBE RIVER BASIN MANAGEMENT
Name of the project	2.1.5. Rehabilitation of Ferenc canal (Baja-Bezdán canal)
<i>Potentially affected countries</i>	Hungary, Serbia
<i>Territorial limitation</i>	The target area of the project is the Danube section of common interest (between the towns of Solt and Vukovar), Ferenc canal (Baja-Bezdán canal), as well as the Mohács (Margitta)-Island and Kígyós water systems. The towns/villages affected by the project are: Baja, Szeremle, Dunafalva, Bátmonostor, Nagybaracska, Homorúd, Dávod, and Hercegszántó.
<i>Preliminaries, justification and objective of the project</i>	<p>Ferenc canal (Baja-Bezdán canal) was built in 1870-1875 by using the oxbow lakes existing in the area, which were connected by a dug canal. The canal served three purposes basically. It made water transport possible between Baja and Bezdán (and from there on, further on Ferenc canal to the river Tisza); it served for water substitution aimed at water utilisation and water drainage aimed at the prevention of water damage. The upper regulatory establishment on Ferenc canal (Baja-Bezdán canal) is Deák Ferenc Sluice at Baja; its lower regulatory establishment is Sebesfok Sluice at Bezdán, in the area of Serbia. Given its current condition, as regards its basic functions the canal is no longer suitable at all for providing a waterway; it has limited ability in water substitution and it is only its water drainage function that it is able to meet with more or less safety.</p> <p>The watercourses crossing the Hungarian- Serbian border require close cooperation between the two countries in all areas of water management. The main fields of this cooperation are: flood and inland water protection, river regulation, provision of navigable waterway, division of water supplies, and protection of water supply quality. All the protection, operation and planning activities that serve the above branches of water management are based on the data provided by the hydrological monitoring services of the two countries.</p> <p>It was in the 1980's when partial dredging activities were last carried out on the canal; since then, the watercourse of the canal has silted up, has been strongly overgrown by vegetation and the transfer of water in the quantity and of the quality specified in the joint operational regulations to Serbian territory cannot always be guaranteed. The rehabilitation aims at the restoration of the waterway and the water drainage capacity of Ferenc canal (Baja-Bezdán canal), the reconstruction of the water level regulatory establishments as well as the development of hydrological monitoring.</p>
<i>Obligation (in terms of law, etc.)</i>	<p>Hungarian regulations:</p> <ul style="list-style-type: none"> • Act 53/1995 on the General Environmental Protection Rules; • Act 57/1995 on water management; • Act 53/1996 on nature protection;

	<ul style="list-style-type: none"> • Act 74/1999 on the Management and Organisation of Protection against Disasters and Protection against Major Accidents Involving Dangerous Materials; • Decree No. 232 of 1996 of the Government on the rules of protection against damages caused by flood; • Decree No. 10 of 1997 of the Ministry of Transport, Telecommunications and Water Management regarding the protection against flood and siltation; • Decree No. 15 of 1997 of the Ministry of Transport, Telecommunications and Water Management on flood levels of rivers. <p>International regulations/documents:</p> <ul style="list-style-type: none"> • "Best Practice Document on Flood Prevention, Protection and Mitigation" – 2003; • Action Programme for Sustainable Flood Protection in the Danube River Basin – 2004; • The Water Framework Directive 2000/60/EC of the European Parliament and of the Council; • Directive 2007/60/EC on the Assessment and Management of Flood Risks of the European Parliament and of the Council. • An Agreement signed by the governments of the Hungarian People's Republic and the Federal People's Republic of Yugoslavia on water management issued on August 8, 1955.
<p><i>Common interests of the Danubian Member States</i></p>	<p>The rehabilitation work to be carried out within the framework of the project may serve as a basis for the joint flood and inland water protection measures through the implementation of which the canal could meet the water damage mitigation, water supply and water quality expectations specified in the joint Hungarian-Serbian operational regulations.</p>
<p><i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i></p>	<p>The beneficiary of the project is the Lower Danube Valley Environmental and Water Management Directorate.</p> <p>The target groups of the project are inhabitants of the Southern Great Plain region, Bács-Kiskun County and the neighbouring Voivodina; its primary target groups comprising business organisations in the Bácska region, the 200-300 thousand inhabitants of the region as well as visiting tourists whose number could rise considerably after the elaboration of implementation plans and the realisation of rehabilitation work, meeting the objectives of the project.</p> <p>The project may foster the development of village tourism in settlements along the waterway in both countries. Large-scale development may be targeted here in the gastro tourism of Baja, Nagybaracska and Bezdán, which have been famous for their fish dishes at the European level until now already.</p> <p>The developments to be implemented may foster the development of water tourism to a great extent as well, especially in the cases of small vessels, boats and canoe-type vessels. With accommodation in the villages along the canal, half or full-day excursions can be made to nearby sights (e.g. the Sárköz folk costumes and architecture in Szeremle, the Hunter's Mansion in Karapancsa, the Lake Riha, the</p>

	<p>Béda-Karapanca Nature Reserve and the thermal bath in Dávod). The rehabilitation of the canal may enhance the security of water supply for farmers specialised in fish breeding in areas of significant sizes along the canal. The revitalisation of oxbow lakes cut through the construction of the canal may involve a growing tourist attraction ability in further regions; in these oxbow lakes, it is fishing tourism the development of which may be a primary objective.</p>
<p><i>The content of the project</i></p>	<p>It was in the 1980's when partial dredging activities were last carried out on the canal; since then, the watercourse of the canal has silted up, has been strongly overgrown by vegetation and the transfer of water in the quantity and of the quality specified in the joint operational regulations to Serbian territory cannot always be guaranteed. The rehabilitation aims at the restoration of the waterway and the water drainage capacity of Ferenc canal (Baja-Bezdán canal), the reconstruction of the water level regulatory establishment (Deák Ferenc Sluice) on the canal as well as the development of hydrological monitoring. Before the implementation of the above, a survey shall be made of the 32.2 km long canal, to be followed by delivery planning based thereon, on which Hungarian and Serbian water management organs jointly submitted an IPA tender in 2009. During the implementation of the project, it is necessary to remove the vegetation and silt all along the canal so as to restore navigability, as a result of which, in the case of adequate water levels on the Danube, the water quantity specified in the operational regulations will be guaranteed to be transferred further on to the canal section in Serbia. Through the removal of the vegetation and silt, the currently unfavourable water quality will also undergo a change in the positive direction. So as to guarantee the reliable measurement of the quantitative and qualitative parameters of waters, it is necessary to carry out hydrological monitoring development, guaranteeing the continuous recording and prediction of water level and supply. Within the framework of the project, the upper water level regulatory establishment of the canal (Deák Ferenc Sluice) shall undergo a complete reconstruction. This will include the reconstruction of the pedestal, the walls, covers, the apron and loose bed, the gates and hydraulic jump, the stands and the mechanical and electronic equipment. Ferenc canal (Baja-Bezdán canal) and the closely related areas of water may have a significant role in the regional development of Hungarian and Serbian towns and villages interested in the canal basin. Already in the mid 1990's, official organs of the neighbouring Serbia should interest in the development. Considering that the canal itself is of joint interest, development may proceed only after due negotiations and in close cooperation with the neighbouring country. The major development objectives during the rehabilitation in both Hungarian and Serbian territory may be the following:</p>

	<ul style="list-style-type: none"> - rehabilitation of canal and surroundings, - implementation of efficient water substitution and regulation, - creating conditions for water tourism (paddling, yacht), - revitalisation of cut off oxbow lakes, - creating conditions for bicycle tourism, - establishing attractive rest stations and accommodations.
<i>Vision/effects/results</i>	<p>The rehabilitation work to be carried out within the framework of the project may serve as a basis for the joint flood and inland water protection measures through the implementation of which the canal could meet the water damage mitigation, water supply and water quality expectations specified in the joint Hungarian-Serbian operational regulations.</p> <p>Through the rehabilitation of the canal, the tourist attraction ability of the region may grow, adding to the wetland nature of the Baja region. The development of water tourism may create new employment opportunities and foster the development of enterprises specialised in village tourism in the villages along the canal.</p> <p>The project may foster the development of village tourism in settlements along the waterway in both countries. Large-scale development may be targeted here in the gastro tourism of Baja, Nagybaracska and Bezdán, which have been famous for their fish dishes at the European level until now already.</p> <p>The developments to be implemented may foster the development of water tourism to a great extent as well, especially in the cases of small vessels, boats and yacht-type vessels. With accommodation in the villages along the canal, half or full-day excursions can be made to nearby sights (e.g. the Sárköz folk costumes and architecture in Szeremle, the Hunter’s Mansion in Karapanca, the Lake Riha, the Béda-Karapanca Nature Reserve and the thermal bath in Dávod).</p> <p>The rehabilitation of the canal may enhance the security of water supply for farmers specialised in fish breeding in areas of significant sizes along the canal.</p> <p>The revitalisation of oxbow lakes cut through the construction of the canal may involve growing tourist attraction ability in further regions; in these oxbow lakes, it is fishing tourism the development of which may be a primary objective.</p>
<i>Cost requirement of the project</i>	cca. HUF 2.5 billion
<i>The term of implementation</i>	December 2009 – March 2013
<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	The Hungarian and Serbian water management organs of interest submitted a joint IPA tender for the survey of Ferenc canal (Baja-Bezdán canal), Deák Ferenc Sluice and Sebesfok Sluice and the making of rehabilitation and reconstruction plans in 2009.

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Name of subprogramme	2.2. HARMONISED FLOOD PROTECTION IN THE DANUBE VALLEY
Name of the project	2.2.1. DKMT RESCUE, Cross Border Cooperation Programme
<i>Potentially affected countries</i>	Hungary, Romania
<i>Territorial limitation</i>	Hungary, Romania
<i>Preliminaries, justification and objective of the project</i>	INTERREG III, DKMT RESCUE Team
<i>Obligation (in terms of law, etc.)</i>	The joint coordination of flood protection, bilateral assistance, cross border protection. Act 74 of 1999.
<i>Common interests of the Danubian Member States</i>	Bilateral and border region disaster assistance. Danger of flood.
<i>Parties affected by the project</i>	Disaster management organs, civil aid organisations, non-profit organisations
<i>The content of the project</i>	Training and equipping flood rescue teams
<i>Vision/effects/results</i>	common flood rescue team, elaboration of common orders of procedure, core build up- and field practices, preparation for a flood situation, elaboration of a Flood Rescue Manual
<i>Cost requirement of the project</i>	EUR 2,000,000
<i>The term of implementation</i>	24 months
<i>The level of preparedness of the project</i>	planned

European Danube Region Strategy EDRS	
Name of subprogramme	2.2. HARMONISED FLOOD PROTECTION IN THE DANUBE VALLEY
Name of the project	2.2.2. Interconnecting the model systems of rivers
<i>Potentially affected countries</i>	The whole Danube river basin, especially neighbouring countries: Austria, Slovakia, the Ukraine, Romania, Serbia, Croatia, Slovenia
<i>Territorial limitation</i>	the whole Danube river basin, especially in the area of neighbouring countries
<i>Preliminaries, justification and objective of the project</i>	Today, all countries model the dynamic regimes of rivers and these models are constantly calibrated and updated. The interconnection of the modelled river sections produces a model with a fresh data base that can be primarily used by (relatively) lower reach countries at the flood level, medium water level, low water level and shipping level. The interconnection of models has a high significance when determining benchmark flood levels. The significance of modelling has been fast increasing in the planning of water supplies, and the planning and safe determination of water retentions made necessary by climatic change.
<i>Obligation (in terms of law, etc.)</i>	<p>Hungarian regulations:</p> <ul style="list-style-type: none"> • Act 53/1995 on the General Environmental Protection Rules; • Act 57/1995 on water management; • Act 53/1996 on nature protection; • Act 74/1999 on the Management and Organisation of Protection against Disasters and Protection against Major Accidents Involving Dangerous Materials; • Decree No. 232 of 1996 of the Government on the rules of protection against damages caused by flood; • Decree No. 10 of 1997 of the Ministry of Transport, Telecommunications and Water Management regarding the protection against flood and siltation; • Decree No. 15 of 1997 of the Ministry of Transport, Telecommunications and Water Management on flood levels of rivers. <p>International regulations/documents:</p> <ul style="list-style-type: none"> • "Best Practice Document on Flood Prevention, Protection and Mitigation" – 2003; • Action Programme for Sustainable Flood Protection in the Danube River Basin – 2004; • The Water Framework Directive 2000/60/EC of the European Parliament and of the Council; • Directive 2007/60/EC on the Assessment and Management of Flood Risks of the European Parliament and of the Council.
<i>Common interests of the Danubian Member States</i>	The safe management of extreme water regimes makes it necessary to be familiar with the characteristics of foreign river basins above member states, with the information constantly updated, and to make precise estimations on the developing situations so that floods, inland

	waters, water quality damages or drought phenomena can be safely avoided.
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	The beneficiaries of the project in Hungary are the Environmental Protection and Water Management Research Institute (VITUKI) and Budapest University of Technology (BME). The implementation of the project directly affects the regional water directorates in authority as well as the Central Directorate for Water and Environment. The direct target groups of the project are the water directorates managing water supplies as well as the authorities concerned.
<i>The content of the project</i>	<p>Within the framework of the project, the conditions of joint modelling should be arranged at the level of neighbouring member states at least, including synchronising the databases necessary and, if possible, defining the common model system. Modelling should be synchronised in one dimension primarily, but in the river sections where the river forms a state border, two or three dimension modelling may be required.</p> <p>After assessing the research results and working out the methodological guide, the necessary data exchange or models must be identified and the necessary informatics background, including the software required for the modelling of phenomena, must be guaranteed. Within the framework of the project, the experts in authority of member states must be guaranteed opportunity for continuous consultation.</p>
<i>Vision/effects/results</i>	By synchronising the model systems countries will have the chance to make more precise predictions on developing extreme situations and on changes affecting water supplies. In extreme situations, member states have only limited communication opportunities due to the fund requirements of protection activities. The interconnected models make it possible for member states to make predictions on the developing situations in their own areas on the basis of open data bases in upper reach countries (e.g. water level reports, the opening of lock gates) individually.
<i>Cost requirement of the project</i>	cca. HUF 1 billion
<i>The term of implementation</i>	2012-2015
<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	The project should be launched in 2012.

European Danube Region Strategy EDRS	
Name of subprogramme	2.2. HARMONISED FLOOD PROTECTION IN THE DANUBE VALLEY
Name of the project	2.2.3. Harmonised management of high water river beds
<i>Potentially affected countries</i>	The whole Danube river basin, especially neighbouring countries: Austria, Slovakia, the Ukraine, Romania, Serbia, Croatia, Slovenia
<i>Territorial limitation</i>	Hungary and the neighbouring countries concerned
<i>Preliminaries, justification and objective of the project</i>	The floods that have developed in the past decade have made it clear that a greater emphasis should be laid on sustaining the floodplains of rivers. Several projects have been launched to foster the above. The planning principle “More space for rivers” has been similarly launched within this framework. The continuously rising flood levels and the need to keep the natural potentials of rivers make it necessary to redefine the management of high water river beds, identifying the potential land uses and interventions that guarantee both flood protection and sustaining or increasing the ecological potentials of the river. Within the framework of the project, it is necessary to design harmonised high water river bed management plans that guarantee reaching the above goals.
<i>Obligation (in terms of law, etc.)</i>	<p>Hungarian regulations:</p> <ul style="list-style-type: none"> • Act 53/1995 on the General Environmental Protection Rules; • Act 57/1995 on water management; • Act 53/1996 on nature protection; • Act 74/1999 on the Management and Organisation of Protection against Disasters and Protection against Major Accidents Involving Dangerous Materials; • Decree No. 232 of 1996 of the Government on the rules of protection against damages caused by flood; • Decree No. 10 of 1997 of the Ministry of Transport, Telecommunications and Water Management regarding the protection against flood and siltation; • Decree No. 15 of 1997 of the Ministry of Transport, Telecommunications and Water Management on flood levels of rivers. <p>International regulations/documents:</p> <ul style="list-style-type: none"> • “Best Practice Document on Flood Prevention, Protection and Mitigation” – 2003; • Action Programme for Sustainable Flood Protection in the Danube River Basin – 2004; • The Water Framework Directive 2000/60/EC of the European Parliament and of the Council; • Directive 2007/60/EC on the Assessment and Management of Flood Risks of the European Parliament and of the Council.
<i>Common interests of the Danubian Member States</i>	Managing floods and sustaining the ecological potential (green corridors) of floodplains (high water river beds) are the common interest of all member states. Within the framework of the project, it

	is primarily necessary to manage high water river beds along state borders or crossing these, which is of common interest between neighbouring member states since intervention on either side may affect or have a repercussion on the water or ecological condition of the neighbouring member state.
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	The implementation of the project directly affects regional water directorates in charge of flood protection, with regional authority, and the Central Directorate for Water and Environment in charge of designing and implementing the high water river bed management plan.
<i>The content of the project</i>	Within the framework of the project, it must be organised at the level of neighbouring member states at least to harmonise high water river bed management plans, including involving society in the planning processes between neighbouring countries. Planning requires a geodesical survey of high water river beds and the setting of benchmark water supplies. In the knowledge of the base data, the necessary provisions or interventions must be determined on the basis of the relevant nature protection management and regional development plans, the demands of the local authorities concerned and the expected cost efficiency.
<i>Vision/effects/results</i>	By working out high water river bed management plans, the unfavourable trends caused by the mismanagement of river bed sections can be stopped or mitigated. Management according to plans makes it possible to safely manage floods, increase the opportunity for retaining water, guarantee the role of ecological corridor for the river and meet the social demands of the river in a safe and nature friendly way.
<i>Cost requirement of the project</i>	cca. HUF 1 billion
<i>The term of implementation</i>	2010-2014
<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	The project shall be launched in 2010 according to the thematics worked out.

	European Danube Region Strategy EDRS
Name of subprogramme	2.2. HARMONISED FLOOD PROTECTION IN THE DANUBE VALLEY
Name of the project	2.2.4. FLOOD RESCUE MODULE, European rapid reaction capability
<i>Potentially affected countries</i>	Hungary, Romania, Austria, Poland, Slovakia, the Czech Republic
<i>Territorial limitation</i>	
<i>Preliminaries, justification and objective of the project</i>	development of a European Civil Defence Module elaboration of the requirements of a Flood Protection Module
<i>Obligation (in terms of law, etc.)</i>	flood protection, European Community Mechanism for Civil Protection; Commission Decision 2008/73/EC, Euratom; Act 74 of 1999
<i>Common interests of the Danubian Member States</i>	mitigating the danger of flood in the Danube river basin
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	disaster management, civil rescue organisations
<i>The content of the project</i>	training of flood rescue teams, training of rapid reaction forces, elaboration of common European standards
<i>Vision/effects/results</i>	common flood rescue team, elaboration of common orders of procedure, preparation for a flood situation, elaboration of a Flood Camp Manual, international deployments, proposal of Modules to the EU
<i>Cost requirement of the project</i>	EUR 1,000,000
<i>The term of implementation</i>	24 months
<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	planned

	European Danube Region Strategy EDRS
Name of subprogramme	2.2. HARMONISED FLOOD PROTECTION IN THE DANUBE VALLEY
Name of the project	2.2.5. Uniform European risk and security identification along the river
<i>Potentially affected countries</i>	Countries of the Danube river basin (11 countries)
<i>Territorial limitation</i>	the Danube river basin
<i>Preliminaries, justification and objective of the project</i>	The project rests upon the Action Programme for Flood Protection of the International Commission for the Protection of the Danube River (ICPDR) and the EU Flood Directive. In accordance with these, a preliminary risk estimation shall be carried out in the countries concerned until 2011, to be followed by a danger and risk mapping by 2013 and risk management planning to be completed by the end of 2015. Work proceeds with varying levels of detail and different methodologies in the countries concerned. In Hungary, the project with the identification No. 2008-0001, carried out within the framework of the programme KEOP 2.5.0-B, which is to serve as the methodological basis of the application here, is to be completed by July 2010. It would be of extremely high importance to harmonise the various levels (European, regional and national) of flood danger- and risk management planning.
<i>Obligation (in terms of law, etc.)</i>	International Commission for the Protection of the Danube River (ICPDR) Action Programme for Flood Protection; EU Flood Directive
<i>Common interests of the Danubian Member States</i>	The most efficient risk management can be carried out only at the river basin level. A significant proportion of interventions mitigating the danger of flood may be carried out in upper river basin sections directly not endangered by flooding. Measures aimed at changes in land use can also be designed based on a macro regional, complex attitude only. In various regions of countries along the Danube, dangers and risks appear at various levels. Alternatives regarded as optimal at the level of single countries may prove much less efficient considering the countries concerned as a whole than the alternatives based on the mutually agreed upon goals. In addition to the principle of solidarity, common thinking should be targeted at the aspects of the protection of human life and health, environment protection and economic efficiency.
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	The target groups of the project are national governments, regional authorities, regional development agencies, local authorities and civil organisations. These organisations are also the main beneficiaries of the project, together with local enterprises, especially small and medium size agricultural, industrial and service enterprises as well as employed inhabitants of the region. In the project, a major role is assigned to national and regional authorities, other cooperating organisations and observing partners. Beyond this, the involvement of beneficiaries will be fostered by

	work meetings, conferences, community events related to pilot projects as well as communiqués and articles. Community consultations make it possible for beneficiaries, including civil organisations, to express their opinions and participate in the formation of the strategy as active contributors.
<i>The content of the project</i>	The aim of the project is to work out a transnational flood security and risk management strategy. In the course of their joint work, partners accept a common methodology, elaborate sample projects, create a forum for international cooperation for planners and decision makers and guarantee publicity.
<i>Vision/effects/results</i>	<p><i>Results:</i></p> <ul style="list-style-type: none"> - a common integrated strategy, common data base (statistics, plans, programmes, research documents); - Danube river basin flood risk website (in 11 languages); - 3 transnational pilot projects; education materials; - a document supporting a joint risk management will with reference to the Danube river basin; - 11 work meetings and seminars with 20-30 participants each; - 2 conferences with almost 50 participants respectively; - 22 publications in partner countries. <p><i>Effects:</i></p> <ul style="list-style-type: none"> - community activity in flood risk management in the Danube river basin; - 60 regional development experts with practice; - an international planning network between planning institutes and authorities; risk management plans supported by local authorities in 3 sample areas; continuous cross border cooperation; - 11 proposals for national policy; - a new method adoptable for the flood risk management of international river basins.
<i>Cost requirement of the project</i>	Total costs of the project: EUR 4,000,000
<i>The term of implementation</i>	July 2009 – June 2012
<i>The level of preparedness of the project (permits, plans, expected time of start, connection to ongoing investment, etc.)</i>	-

	European Danube Region Strategy EDRS
Name of subprogramme	2.2. HARMONISED FLOOD PROTECTION IN THE DANUBE VALLEY
Name of the project	2.2.6. Establishing and setting into a system common flood protection databases Formation and uploading of databases
<i>Potentially affected countries</i>	the countries of the Danube river basin (11 countries)
<i>Territorial limitation</i>	the Danube river basin
<i>Preliminaries, justification and objective of the project</i>	The project No. 2008-0001, carried out in Hungary within the framework of the programme KEOP 2.5.0-B and serving to create a methodological base for flood protection, risk mapping and risk management as well as a foundation for an informatics infrastructure required for further activities, is to be completed by July 2010. The Flood Risk Information System developed within the framework of the project rests on a uniform database countrywide. Harmonised international activities require mobility across national databases.
<i>Obligation (in terms of law, etc.)</i>	International Commission for the Protection of the Danube River (ICPDR) Action Programme for Flood Protection; EU Flood Directive
<i>Common interests of the Danubian Member States</i>	It is a fundamental interest of member states considering both preventive flood protection and operative flood mitigation to guarantee fast and precise information flow. A basic prerequisite of this, beyond the necessary technical infrastructure, is a uniform database background. On the basis of data interpreted and stored in the same way it is possible to harmonise both development and operative defence decisions at the international level and to adequately inform the public.
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	The target groups of the project are national governments, regional authorities, regional development agencies, local authorities, civil organisations and citizens. The uniform database guarantees authentic information for professional and public user surfaces for various organisations and citizens.
<i>The content of the project</i>	The project aims to form a uniform, transnational database that includes the data sheets necessary for flood danger and risk management in countries along the Danube.
<i>Vision/effects/results</i>	<i>Results:</i> <ul style="list-style-type: none"> - common database; - common flood risk terminology (in 11 languages); - 11 work meetings and seminars with 20-30 participants each; - 2 conferences with almost 50 participants respectively; - 22 publications in partner countries. <i>Effects:</i> <ul style="list-style-type: none"> - community activity in flood risk management in the Danube river

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	basin;
<i>Cost requirement of the project</i>	Total costs of the project: EUR 4,000,000
<i>The term of implementation</i>	September 2010 – December 2012
<i>The level of preparedness of the project (permits, plans, expected time of start, kapcsolódás folyó beruházáshoz, etc.)</i>	-

	European Danube Region Strategy EDRS
Name of subprogramme	2.3. UNIFORM BASE DANUBE INFORMATION SYSTEMS
Name of the project	2.3.1. "Radiological control of the Danube"
<i>Potentially affected countries</i>	Bavaria, Austria, Slovakia, Romania, Slovenia (countries under the WFD), the Ukraine, Croatia, Serbia
<i>Territorial limitation</i>	the whole length of the river Danube
<i>Preliminaries, justification and objective of the project</i>	The project aims to reveal potential radioactive pollution in the Danube which could come, on the one hand, from emissions discharged by foreign establishments, institutions using radio isotopes in the upper sections of the Danube and, on the other hand, from establishments in Hungary, the Paks Nuclear Plant, as well as from glaciers in the Alps (tritium).
<i>Obligation (in terms of law, etc.)</i>	Decree 8 of 2002 of the Ministry of Health, Decree 275 of 2002 of the Government and the foundation documents of the National Research Institute for Radiobiology (OSSKI) No. 2007-01-01 and 2009-07-01 (approved by the minister of health)
<i>Common interests of the Danubian Member States</i>	For Hungary and its immediate neighbours along the Danube (Slovakia, Serbia) it is important to preserve and control the good quality of the Danube as a natural value and a water base.
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	The population of Hungary – the Danube is the biggest drink water base in the country.
<i>The content of the project</i>	OSSKI carries out radiological control along the whole section of the Danube within Hungary on a monthly basis. Samples are collected at: Gönyű, North-Pest, South-Pest, Paks, Mohács, as well as, within the framework of the programme, Szelídi Lake (for reference). Measurements: monthly: total beta-activity, ⁴⁰ K- and ³ H-concentration; quarterly: ⁹⁰ Sr-activity-concentration and gamma-spectrometric measurement. Annual number of samples: cca. 80, annual number of measurements: cca. 300. The practice should be extended to the countries concerned within the framework of international cooperation.
<i>Vision/effects/results</i>	In Hungary, it is on the basis of the programme results that OSSKI establishes that the Danube as a drink water base is adequate from the point of view of radiological health. It can furthermore be established through the above if there is considerable radioactive material emission from Hungarian establishments, primarily the Pask Nuclear Plant, into the Danube.
<i>Cost requirement of the project</i>	one-time investment cost: HUF 21 m

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	material costs: HUF 7 m/ year
<i>The term of implementation</i>	continuous
<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	Since 1977, OSSKI has conducted continuous radiological control on the Danube (which for 3 years, until 1979, was carried out within the framework of a research programme coordinated by the International Nuclear Energy Agency).

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Name of subprogramme	2.3. UNIFORM BASE DANUBE INFORMATION SYSTEMS
Name of the project	2.3.2. Process assessment of changes in river sediments in the Danube river basin
<i>Potentially affected countries</i>	whole river basin of the Danube
<i>Territorial limitation</i>	in the whole river basin of the Danube, places characteristic for the phenomena of sediment migration
<i>Preliminaries, justification and objective of the project</i>	<p>The suspended and rolled sediment delivery of the Danube and its tributaries is an issue of decisive importance in regional development and in the protection against flood and inland water. As a consequence of artificial intervention, the sediment coming from the upper sections of the river basin has been restructured. The rate of rolled sediments has fallen while that of suspended sediments has grown. This phenomenon has caused increasingly serious problems in the protection against flood (overflow of the high water river bed) and drought (fall of the medium water river bed). Water level fluctuations have become extreme, making protection against water damage and the determination of the necessary intervention difficult. The problems caused by the changes in sediment ratios, the shortage or excess of sediments, the advantages and disadvantages vary geographically. It is necessary to examine the phenomena comprehensively in the whole river basin. With the help of correlating analyses, conclusions must be drawn regarding the extent of the expected changes to be able to make longer term predictions on the trends of flood and inland water levels fundamentally determinative for regional development and for sustaining the necessary water supplies. It is important that the planning of necessary interventions be based on well-grounded research results and be made for a longer run, in a sustainable way. Thus the goal of the project is to examine what solutions artificial sediment substitution could provide for the above problem.</p>
<i>Obligation (in terms of law, etc.)</i>	<p>Hungarian regulations:</p> <ul style="list-style-type: none"> • Act 53/1995 on the General Environmental Protection Rules; • Act 57/1995 on water management; • Act 74/1999 on the Management and Organisation of Protection against Disasters and Protection against Major Accidents Involving Dangerous Materials; • Decree No. 232 of 1996 of the Government on the rules of protection against damages caused by flood; • Decree No. 10 of 1997 of the Ministry of Transport, Telecommunications and Water Management regarding the protection against flood and siltation; • Decree No. 15 of 1997 of the Ministry of Transport, Telecommunications and Water Management on flood levels of rivers. <p>International regulations/documents:</p>

	<ul style="list-style-type: none"> • "Best Practice Document on Flood Prevention, Protection and Mitigation" – 2003; • Action Programme for Sustainable Flood Protection in the Danube River Basin – 2004; • The Water Framework Directive 2000/60/EC of the European Parliament and of the Council; • Directive 2007/60/EC on the Assessment and Management of Flood Risks of the European Parliament and of the Council.
<i>Common interests of the Danubian Member States</i>	The changing sediment structure caused by artificial interventions poses problems in all member states. At places where the Danube and/or its tributaries cross one or more state borders, a comprehensive analysis is of special importance since these analyses cannot be carried out efficiently at the level of single member states.
<i>Parties affected by the project (target group, beneficiaries, cooperating parties)</i>	The beneficiary of the project in Hungary is the Central Directorate for Water and Environment. The implementation of the project directly affects the regional water directorates in authority, the Environmental Protection and Water Management Research Institute (VITUKI) and Budapest University of Technology (BME). The direct target groups of the project are the organisations in charge of collecting sediment samples (in Hungary, these are the water directorates) and the research institutes assessing the results (in Hungary, these are VITUKI and BME).
<i>The content of the project</i>	<p>Within the framework of the project, sediment sample collection and analysis must be organised on a uniform basis at the level of the Danube river basin. In the first phase of the project, the necessary methodology and the instruments required for implementation must be determined through a base research work carried out within the framework of a pilot project.</p> <p>The assessment of research results and the methodological guide designing must be followed by providing the instruments necessary for sediment sample collection and assessment as well as the required informatics background, including the software required for modelling the phenomena. Within the framework of the project, the experts in authority of various member states must be granted the opportunity of continuous consultation.</p>
<i>Vision/effects/results</i>	With the results of sediment research at our disposal, the uncertainty of determining the expected phenomena has decreased. This has made it possible to design the very costly water damage prevention investments for a longer run and in a more sustainable way, which will increase the cost efficiency and sustainability of the investments concerned. Considering that Hungary, due to its geographical position (Pannon Basin), is strongly exposed to the effects of sediment changes and that the extent of changes is extremely high here compared to other countries in the river basin, compensating for the effects demands considerable sources from the national budget. The harmonised management of the problem at the level of the river basin will make it possible to ease the burden on the budget.
<i>Cost requirement of the</i>	cca HUF 2.5 billion

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<i>project</i>	
<i>The term of implementation</i>	2012-2015
<i>The level of preparedness of the project (permits, plans, expected time of start, etc.)</i>	The project should be launched in 2012.