STANDARD SUMMARY PROJECT FICHE

1. Basic Information

1.1 Désirée Number: SR0113.01
1.2 Title: Re-engineering of the water channel “Chorvatske rameno”
1.3 Sector: Phare Cross-Border Co-operation Slovakia - Austria
1.4 Location: Bratislava Region - Slovak Republic

2. Objectives

2.1 Overall Objectives:

“Completion of the TEN in Slovak-Austrian border region by construction of the D-61 highway Viedenska cesta - Pristavny most”
“Preservation of the bio-corridor situated in the Slovak – Austrian border area along the Danube basin”

2.2 Project purpose:
Environmental mitigation measures for the construction of the D-61 highway Viedenska cesta - Pristavny ensured

2.3 Accession Partnership and NPAA priority

Accession Partnership
The project is in line with the medium term priority “Environment – enforcement of environmental protection and sustainable development”

NPAA
- Chapter Transport: medium-term priorities - Continue to build road and motorway infrastructure and modernise railway infrastructure in selected multi-modal corridors (TINA), in line with adopted conceptual documents.
- Chapter Water protection: „National Action Plan for the Danube Basin “ specified for the territory of the Slovak Republic which is related to the Convention on the Co-operation for the Protection and Sustainable use of the river Danube”.
- Chapter Nature and Landscape Protection : Continuation of the project for mapping Slovakia´s biotopes according to the CORINE methodology ( 1999 – 2001 )

2.4 Contribution to National Regional Development Plan
The proposed project is in accordance with the National Plan of Regional Development of the Slovak Republic adopted by Government Decree 240/2001. The project is in line with the goals of the Sector operational Programme “Transport” and the Regional Operational Programme for Bratislava region.
The project is also in line with the Joint Programming Document for Slovakia and Austria: Priority II - Accessibility, Measure: Improvement of Cross Border Transport and Telecommunication Infrastructure and also in line with the Priority V - Sustainable Spatial and Environmental Development, measure: Measures for nature and environmental protection including National and Nature Parks

2.5 Cross Border Impact
The completion of the Trans-European Network in the Bratislava-Wien area will improve the accessibility on both sides of the Slovak-Austrian border to the European markets.

Furthermore it will contribute to the sustainable development in this area preserving the bio-corridors on both sides of the border from the negative impact of the transport and preventing this area against possible floods.

3. Description

3.1 Background and justification:

The proposed project is in line with the Regional Operational Programme for the Bratislava region and with the basic strategic and planning documents in this area concerning the preservation and care for the environment such as the Strategy, Rules and Priorities of State Environmental Policy and the Action Plan for the Danube River Basin, specific target: „water protection“. The project is foreseen also within the Territorial Plan of the city of Bratislava.

The project is situated within the Slovak-Austrian border area embraced by the bio-corridors of the river Danube and the Malé Karpaty mountains. The cross border area between the Slovak City part Bratislava-Petržalka and the Austrian municipality Kittsee should be completed by the construction of the highway D61- Viedenská cesta – Prístavný most bridge. The future highway is situated near the water channel Chorvátske rameno branch cutting and leads to the Slovak-Austrian border crossing.

The highway which will be partially constructed below the current surface shall be protected against high groundwater level. According to the Environmental Impact Assessment one of the pre-conditions for the future highway construction is the remediation of the existing water channel Chorvatske rameno. The water channel shall serve as a de-watering channel for the highway. The project will solve the de-watering of the above mentioned highway and of the cross border area in the case of floods and also contribute to the preservation of the existing bio-corridors.

From the water management point of view the water channel Chorvatske rameno shall in case of floods assure a continuous de-watering of high water line of underground waters as well as surface waters infiltrated through the protective lines in the area Peržalka/Wolfsthal.

This project deals with the remediation of the water channel “Chorvátske rameno” built in the 70’s in the area of the former Danube river branch. Its primal function is the prevention of floods in the City part Bratislava - Petržalka and the adjoining Slovak – Austrian border area. There are another two Danube river branches left: Biskupské rameno and Pecenské rameno.
The water input into the water channel Chorvatske rameno is ensured through the existing underground water basins. The water level in the channel is counting some 1 – 1.5 m depending mostly from the water level of the river Danube. The water channel is equipped with a pumping station and with several small dams.

The ground waters at the D-61 highway shall be injected into the water channel Chorvátske rameno and then to the right seepage-channel of the water reservoir Zdrž Hrušov. To maintain the constant flow of the water into the water channel Chorvátske rameno it will be necessary to expand the capacity of outlets in the existing dams and to create a continuous water in the water channel.

For the maintenance of the water flow in the water channel Chorvátske rameno it will be necessary to connect the water channel to the right-hand seepage channel of the water reservoir Hrušov. In order to secure the gravitational flow the existing dams in the water channel at the Kutlíkova street and at the Hraniciarov square shall be removed.

The water flow in the water channel Chorvátske rameno will have a positive influence on the bio-diversity in the channel environment and will act as an integrating factor between the bio-corridors of supraregional importance such as the river Danube and the dry bio-corridor Pecenský les at the Slovak – Austrian boundary.

The water channel Chorvátske rameno will at the same time serve as a flood protective element in the area of Wolfsthal – Petrzalka on the Slovak side as well as the Wolfsthal – Kitsee area on the Austrian side.

The water channel Chorvátske rameno is defined in the framework of the “Land Use Plan of the Capital of the Slovak Republic ” and the “Land Use Plan Documentation” processed by the Office of the Mayor of the Capital of the Slovak Republic Bratislava (Magistrát hl. mesta Slovenskej republiky Bratislavy) as an important urban element of the City part Bratislava- Petrzalka.

Chorvatske rameno river branch will serve as an continuous element of the green recreation space with park features in the central position of the urban zone.

The project is supported by the City part Bratislava - Petrzalka, the Mayor´s Office of the Capital of Slovak Republic Bratislava, Association of Industries and Nature Protection (APOP) and nature protection activists and institutions acting on the territory of Bratislava region.

The project will contribute to the completion of the TEN in the area of Bratislava – Wien by ensuring the requirements set on this investment by EIA. The completion of the TEN in the area will improve the accessibility of the European centres Bratislava – Wien.

3.2. Linked activities:

A) Chorvátske rameno – Water Management Study - Hydromédia, 1993
B) Proposal of the remediation principles of the Chorvátske rameno Hydromédia, 1997
C) Chorvátske rameno – Zrkadlový Háj – Urban study - MARKROP, 1999
D) Tributing the Chorvátske rameno to the right-hand seepage channel of the Zdrž Hrušov water reservoir – Water Management Study - Danube River Authority, 2000

E) Urban study JANTAROVÁ CESTA – LÚKY - TEAM „T“ s.r.o., 2000

F) Tributing the Chorvátske rameno river branch to the right-hand seepage channel of the Zdrž Hrušov water reservoir – Documentation for Land Decision from 04/2001

3.3. Results:

De-watering of the D-61 highway Viedenska cesta-Pristavny ensured

The water flow in the water channel Chorvatske rameno will be maintained of about 1800 l.s\(^{-1}\) by gravitational flow which is a condition for the building the D-61 highway.

3.4 Activities:

The proposed activities within the project “Re-mediation of water channel Chorvátske rameno” can be divided into two parts. In the first stage, the right-hand seepage channel will be constructed connecting the water channel Chorvátske rameno with the water reservoir Hrušov.

In the second stage, the outlets in the existing dams in the water channel Chorvátske rameno will be extended at the Kutlíkova street near the Technopol building. Engineering networks shall be replaced from the dam body and a bridge construction connecting the banks of the water channel Chorvátske rameno will be constructed.

**Activity 1 - Connection of the river branch Chorvátske rameno**

The first stage includes the following components:

- **BO – 01 Site preparation**
- **BO – 02 Water extraction object from the Chorvátske rameno river branch**
- **BO - 03 Pipeline connection**
- **BO – 04 Inverted siphon under the channel collector “B”**
- **BO – 05 Drop structure**
- **BO – 06 Control shafts**

**BO – 01 Site preparation**

Temporary connections to the electricity and water supply network will be constructed. Access road, construction supervision point, social facilities, storage areas for materials, parking for the mechanisms and fences will be built as well.

**BO - 02 Water extraction structure from the Chorvátske rameno river branch**

The water extraction object is planned as a concrete passing gate to the Chorvátske rameno river branch. The side walls will copy the river branch slope shapes. There is a sedimentation basin 6.0 m long, with basin bottom in the altitude of 129.30 m a.s.l. The proposed intake screens will ensure the removal of bigger floating pollution. In order to keep the berm crossing the river branch usable (grass cutting, maintenance), a bridge with side railings on both sides of the bridge will be constructed. In front of the pass connection to the channel, a double gated outlet and provisional damming is proposed.
BO - 03 Pipeline connection
Pipeline connection of the Chorvátske rameno river branch to the seepage channel of the Zdrž Hrušov water reservoir is proposed to be constructed by the use of iron-concrete pipes DN 2200. The total length of the connection is 1055 m.

BO - 04 Inverted siphon under the channel collector “B”.
The pipeline connection of the Chorvátske rameno river branch to the seepage channel of the Zdrž Hrušov water reservoir is crossing the channel collector “B”.

The inverted siphon is composed of the following parts:
- the inflow basin of 6 x 6 x 8 m with the bottom altitude of 125 m a.s.l, protected by the underground protecting walls and the injection of the underlying layer 5.0 m thick,
- the outflow basin of 3 x 6 x 8 m with the bottom altitude of 125 m a.s.l., protected in the same way as the inflow basin,
- the interconnections of the basins will be of an iron-concrete pipe DN 1100. These pipes will be installed by pressing.

BO – 05 Drop structure
Drop structure will be situated at the beginning of the seepage channel of the Zdrž Hrušov water reservoir. The bottom will be of 3,34 x 7,35 m in the 128.40 m altitude a.s.l.

The side-walls will copy the channel slope shapes. The front wall is 20 cm higher than the ground level and is constructed with the railings. The water output is protected by screens, the slopes of the seepage channel will be strengthened by stony walls.

BO – 06 Control shafts
Ten control shafts will be built along the whole pipeline, the distance between them will be 100 m. They will serve for the control and maintenance of the pipeline.

Summary
Site preparation 0,010 MEUR
Water extraction structure 0,178 MEUR
Pipeline connection 1,136 MEUR
Inverted siphon 0,411 MEUR
Drop structure 0,086 MEUR
Control shafts 0,104 MEUR
Total 1,924 MEUR

Means: Works for a total value of 1,927 MEUR, out of which 1,6 MEUR is foreseen for Phare financing. National co-financing is up to 0,327 MEUR.
**Activity 2 - Extension of the outlet capacity**

This activity comprises extension of the outlet capacity in the existing dams at the Kutlíkova street (length of dams 4,485 km) and near Technopol building (length of dams 2,61 km). The existing engineering networks will be upgraded.

Total 0,234 MEUR

*Means:* Works for a total value of 0,234 MEUR are foreseen for national co-financing.

4. **Institutional Framework**

The recipient institution is the Ministry of Construction and Regional Development. The beneficiary of the project are the City part Bratislava-Petržalka and the Danube River Basin Authority. The latter will ensure the maintenance of the infrastructure.

5. **Detailed budget**

<table>
<thead>
<tr>
<th>MEUR</th>
<th>Phare Support</th>
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<tr>
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<td>Investment Support</td>
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<td>1. Connection of the river branch Chorvátske rameno</td>
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<td>2. Extension of outlet capacity</td>
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<tr>
<td>Total</td>
<td>1,60</td>
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</tbody>
</table>

The national co-financing for a value up to 0,56 MEUR (26% of the total project costs) will be secured from the Danube River Basin budget as well as from the budget of the municipality Bratislava-Petržalka. Should additional funding be required, in compliance with the Government Decree 135/2001, it will be guaranteed from the state budget 2002.

6. **Implementation Arrangements**

6.1 Implementing Agency

Implementing Agency for Regional Development
Ministry of Construction and Regional Development
Špitálska 8
816 44 Bratislava
Contact: Mr. Július Slovák
Tel: +421 2 5975 3819
Fax: + 421 2 5975 3833

Implementing authority:
Department of the Programmes of Regional Projects and Co-ordination of the Structural Funds, CBC Unit
Ministry of Construction and Regional Development
Špitálska 8
816 44 Bratislava
6.2 Twinning: not applicable

6.3 Non-standard aspects: The Practical Guide for Phare, ISPA, Sapard will be strictly followed.

6.4 Contracts: One works contract for a total value of 1.6 MEUR.

7. Implementation Schedule
7.1 Start of tendering: 2nd quarter of 2002
7.2 Start of project activity: 3rd quarter of 2002
7.3 Project Completion: 4th quarter 2003

8. Equal Opportunity: not applicable

9. Environment
The environmental screening was completed in the process of Land Use Declaration. The impact on the environment is positive since the project deals with re-mediation of the Chorvatske rameno river branch.

The change of the water flow in the Chorvatske rameno river branch and the extension of the outlets in the existing dams will have positive influence on the bio-diversity. Chorvatske rameno will become a connection of two bio-corridors of regional importance (Danube river basin and Male Karpaty.

The re-mediation of Chorvatske rameno will improve the living conditions in this area and will become an important landscape factor in urban area.

10- Rates of return
Financial rate of return is not applicable due to the nature of the project. Due to the positive environmental impact and the protection of the property and land against floods resulting in the increase of the value of the land, the economic rate of return is positive and the payback period is 20 years.

11. Investment criteria
11.1 Catalytic effect:
The nature of the project indicates that it can be realised only from public sources. Phare co-financing will complement the public sources allocated to this project (Danube River
Basin Authority) and will allow the realisation of the project in due time to complement the construction of the highway D-61.

11.2 Cofinancing:
The national co-financing for a total value of 0,56 MEUR reserved in the Danube River Basin Authority budget represents 26% of the total project costs.

11.3 Additionality:
Due to the nature of the project the Phare co-financing is not displacing any IFI or private investment.

11.4 Project readiness and Size:
The total budget of the project is 2,16 MEUR that is over the threshold of 2 MEUR. The building permit will be issued in August 2001.

11.5 Sustainability:
The project will have a long-term positive impact on environment. The maintenance of the river branch will be secured by the Danube River Basin Authority.

11.6 Compliance with state aids provisions
The investment respects the state aid provisions of Slovak Law 231/99 on State Aid and to the Europe Agreement.

11.7 Contribution to National Regional Development Plan
The project is in accordance with the NDP, Sectoral Operational Programme Transport (TEN completion) as well as the Sectoral Operational Programme Environment (specific target water protection). Two bio-corridors will be interconnected and preserved from the negative impact of the development of transport infrastructure.

12. **Conditionality and sequencing**
The building permit will be issued for the project in August 2001.
The tender documentation will be prepared during the first quarter 2002.
The works will start in 3rd Quarter 2002 with the site preparation. The first phase of the project will be finished in 3rd quarter 2003.
The second phase of the project will be completed in 4th quarter 2003.

**Annexes**
1. Logframe matrix
2. Cumulative contracting and disbursement schedule
3. Indicative Works Schedule
# LOGFRAME PLANNING MATRIX

<table>
<thead>
<tr>
<th>Re-engineering of the Chorvatske rameno river branch</th>
<th>Programme nr: SR0113.01</th>
<th>Date of drafting: June 2001</th>
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<td>Contracting period expires: 30.11.2003</td>
<td>Disbursement period expires: 30.11.2004</td>
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<td>Total Budget: 2,16 MEUR</td>
<td>PHARE contribution: 1.6 MEUR</td>
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### Overall Objectives
- Completion of the TEN in Slovak-Austrian border region by construction of the D-61 highway Viedenska cesta - Pristavny most
- Preservation of the bio-corridor situated in the Slovak-Austrian border area along the Danube river

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<tr>
<th>Objectively Verifiable Indicators</th>
<th>Source of Verification</th>
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<tr>
<td>Motorway D61 km 4.475 - km 8.342 completed</td>
<td>Report of the Ministry of Transport</td>
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<td>Number of flora and fauna species in the corridors the same</td>
<td>Slovak Road administration record</td>
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### Project Purpose
- Environmental mitigation measures for the construction of the D-61 highway Viedenska cesta – Pristavny most ensured

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<th>Objectively Verifiable Indicators</th>
<th>Source of Verification</th>
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<tr>
<td>The water quality in the channel improved</td>
<td>Environmental District Office Bratislava IV</td>
<td>Principles of sustainable development respected</td>
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<td>The noise level remain the same</td>
<td>Danube River Basin Authority</td>
<td>Construction of the D61 Pristavy most - Viedenska cesta supported by the Ministry of Transport and Slovak Government</td>
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</table>

### Results
- De-watering of the D61 highway Viedenska cesta - Pristavny most secured

<table>
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<tr>
<th>Objectively Verifiable Indicators</th>
<th>Source of Verification</th>
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<td>1055 m of pipeline connections built</td>
<td>Records of the Danube River Basin Authority</td>
<td>Construction of all environmental mitigation measures proposed within the construction of the highway D61</td>
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<tr>
<td>water extraction object, inverted siphon, inflow and outflow basins constructed</td>
<td>Final report of the project</td>
<td>Other investment in the concerned area respect the Territorial Plan</td>
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<td>10 control shafts built</td>
<td>Records of the town district Petržalka</td>
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<td>7 employees trained</td>
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<td>flow of the water in channel 1800 l/s secured</td>
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<td>Activities</td>
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# Annex 2

## CUMULATIVE CONTRACTING AND DISBURSEMENT SCHEDULE (MEUR)

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## TIME IMPLEMENTATION CHART

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