1. Basic Information
1.1 Desiree Number: PL01.06.06.02
1.2 Title: Development of the transport infrastructure of Slaskie voivodship
1.3 Sector: ESC
1.4 Location: Poland, Slaskie voivodship

2. Objectives
2.1 Wider Objectives:
The wider objective of the project is to strengthen the economic and social cohesion of Slaskie Voivodship by provision of transport infrastructure.

2.2 Immediate Objectives:
Enhancing investment attractiveness of the area; Improvement of traffic safety; Decrease of traffic flow of vehicles in towns centre; Improvement of transport accessibility of the region.

2.3 Accession Partnership and NPAA priority:
The project responds to the medium term priority identified in the Accession Partnership - developing national policy for economic and social cohesion and preparing for the implementation of regional development programmes as well as Community Initiatives. It corresponds also with the NPAA priority "Regional and cohesion policy".

2.4 Contribution to the Preliminary National Development Plan:
Transport infrastructure plays a key role in reducing disparities in a region’s economic activity. One of the priorities of the cohesion policy identified in the PNDP is the “integration of the Polish economy by modernisation and extension of the road network”. It was described under “Support for development potential and counteracting the marginalisation of certain areas.” One of the measures proposed is the “Development and modernisation of the infrastructure which enhances the competitiveness of regions”. Co-financing of regional transport is made the foundation for the stimulation of the development potential of a region and increasing its competitiveness. The project is also in line with the Operational Programme for Slaskie voivodship. It will be implemented with the priority of the operational program “Support to the Sources of Development in the Region – Development of Modern Integrated Transport Systems and Environmental Care”.

3. Description
3.1 Background and justification:
As is set out in the Preliminary National Development Plan and the Operational Programme for Slaskie voivodship, the region’s development and restructuring will depend, i.a., on the limits to the added value the region will be capable of generating on the basis of its own resources and internal growth potential. A key issue in this respect is access to the region and the integration of the regional approach with interventions at national level. In the preparation of an action plan, certain problems in the area of transport were identified. Slaskie voivodship lies at the intersection of important national and European transport axes. Despite a well-developed transport network (roads, railways, air transportation and waterways) the system has a low capacity, poor technical parameters and poor quality. The establishment of a comprehensive transport system which will meet high standards and use all the available modes of transportation will be based on the strengths of the geographical location of the region and provide an infrastructure backbone for future growth. Slaskie voivodship, with its rich economic and natural potential, is very favourably located on international and domestic transport routes. Despite a relatively well developed road system in the voivodship, a large increase in traffic volumes and reduced expenditure on the development and maintenance of the network ensures that the condition of local and regional roads is far from satisfactory. Dynamic growth in the number of cars and a marked increase in motor transport have had an adverse impact on the technical condition and safety of roads, especially in the 1990s. One of the priorities in the Strategy for the Development of the voivodship is the construction of a new transport system making Silesia more attractive. Increasing the capacity and integration of the transport system, and the accessibility of the region will allow for the development of interregional and international economic exchange in the voivodship. Reduction of transport costs, an increase in the capacity of road systems, mitigation of the adverse impacts and improvements of the safety of town centres will all be achieved through the construction of a system of bypasses, motorways and expressways, as well as the reconstruction and modernisation of existing roads. The Board of
Slaskie Voivodship decided to propose two sub-projects as regards regional impact: Accessibility of south – eastern part to western part of voivodship (Pszczyna - Zory - Rybnik – Racibórz); and Improved accessibility to key tourist areas of Ustron and Wisla and the border crossing with Slovakia. The construction of a northern circular road in Pszczyna constitutes the first stage of modernisation of the Pszczyna – Zory - Rybnik – Racibórz regional road, which secures efficient transport in the towns of the Rybnik agglomeration. The project will provide for a better connection between regional road DK 49 and national road No.1, will relieve the centre of Pszczyna of through traffic and will in the long run (via an intersection with the A1 motorway) provide good connections to the southern parts of the voivodship with Opole/Wroclaw and with the Warszawa – Częstochowa – Gilwice – Ostrava (border crossing) road. Improved road connections will stimulate SMEs development, in particular in relation to this road configuration including improved access to a business-activity zone, which will be realised by Phare 2000. This project will generate: mobility of people in areas of reconversion to look for jobs in other areas, improving transport of goods between Rybnik area and south part of Katowice agglomeration. The Ustron bypass represents a continuation of the existing circular road running at a distance from the centre of Ustron and carrying high volumes of tourist traffic heading for Wisla and the border crossings with Slovakia. The existing road is the only road connection between Ustron and Wisla, it constitutes a part of the route to Istebna and Koniakowo for travellers from Katowice agglomeration. The construction of this section will ease traffic congestion in what is a resort town. Increased accessibility of that area will encourage tourists to visit the region. The role of the bypass is to reduce the traffic on the existing Ustron-Wisla road, improve the safety and traffic conditions, decrease the influence of the road on the environment and improve conditions for the commercial transport of goods and for the development of new trade, services and industry centres as well as small and middle-sized enterprises. These projects are high priorities in the Foundations for a State Transport Policy developed by the Ministry of Transport. The project is not qualified for ISPA funding because all of the roads are regional (voivodship) roads.

### 3.2 Linked activities:

The following transport infrastructure projects have so far been completed in the Slaskie voivodship (under past Phare programs):

- **PL9207 STRUDER** – 4 projects in industrial areas, of a total value of 1.2 MEURO, including 0.7 million from Phare,
- **PL9509 RAPID** – 2 projects of a total value of 0.2 MEURO, including 0.1 MEURO from Phare,
- **EU Flood Damage Reconstruction Programme** – 30 projects: 7.50 MEURO from Phare, 34 million PLN from domestic sources,
- Grants for projects in industrial areas will also be given under project Phare 9903.01 “Mitigating the social cost caused by the reconstruction of the coal and steel industries and regional development in Silesia”

Under regional development programs the Slaskie voivodship is a beneficiary of the Phare INRED program (PL9706) and the Special Preparatory Program for the Structural Fund (PL9808), supporting the preparation of a regional development strategy and an Objective 1 Operational Program, Phare 2000 – Social and economic cohesion 5 regional projects of a total value of 37 MEURO from Phare, including the design for the road to Pyrzowice airport.

First part of Ustron by-pass constructed from voivodship funds and third part of that by-pass directed to Wisla town planned for realisation after construction of the Phare 2001 project (see attached map).

### 3.3 Results:

Construction of 7.3 kilometres of voivodship roads, Secured transportation capacities for the centres of economic and tourist activity in strategic locations of the voivodship; Relief for the towns of Pszczyna and Ustron from through traffic; Improved access to European routes; Improved road safety; Enhanced attractiveness to investors; Increased tourist attractiveness of the region.

Sub-project 1: First-stage modernisation of the Racibórz – Pszczyna route: Improved connections between Rybnik Agglomeration and the national road No. 1 (the main north–south thoroughfare from Gdansk to the border with the Czech Republic and Slovakia), increase of ESS by 18.67 km/h from 45.12 to 63.78 km/h. Improved access to the newly established business-activity zone (30 businesses, 1200 jobs). Improved access to the tourist attractions of the town (the park and palace complex, bison studs farm) and nearby Lake Goczałkowickie (increase of ESS by 57.34 km/h, from 26.06 to 83.40 km/h).

Decrease of vehicles in Pszczyna town by 50% after 1 year (from 1 400 to 700).

Sub-project 2: A Circular road in Ustron: Continued modernisation along voivodship road No. 93. Improved access to the tourist centres in the Beskidy Mountains, i.e. Ustron and Wisla (increase of ESS by 23.17 km/h, from 46.33 to 69.50 km/h). Improved access to the border with the Czech Republic...
(increase of ESS by 1,32 km/h, from 41,26 to 42,62 km/h) and Slovakia (increase of ESS by 0,79 km/h, from 35,16 to 35,95 km/h). A 75% reduction in the traffic volume on voivodship road No. 93 in the boarders of town (currently 910 vehicles/hour), which is very important for a tourist resort.

3.4 Outputs:
Construction of the circular road in Pszczyna in line with voivodship road DW 49, of length 4.8 km, and including a road bridge over the E65 international rail route and a junction connecting between the voivodship road DW 49 and national road DK1. Construction of a circular road in Ustron in line with voivodship road DW 93, of length 2.5 km,

3.5 Inputs:
The value of the entire project is 21.25 MEURO (including 11.500 MEURO of Phare support).

4. Institutional Framework
The beneficiaries of the project will be the Executive Board of Slaskie voivodship, the towns of Pszczyna and Ustron and the the General-Directorate of Public Roads, Southern Branch, in Katowice. As the roads to be constructed in Pszczyna and Ustron are voivodship roads, the Employer here will be the Executive Board of the voivodship. The project engineer will be appointed within tender procedure. Investment owner after project realisation will be Slaskie Voivodship. The investment will be conducted in compliance with the Decentralised Implementation System regulations – “Practical Guide to Phare, Ispa & Sapard contract procedures”. The project implementation will not result in any changes in the institutional framework described above.

5. Detailed Budget

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Sub-project 1: Pszczyna circular road. Sub-project 2: Ustron circular road. Polish co-financing will be available and includes costs of hiring of supervising engineer 743 750 Euro.

Implementation Arrangements

6.1 Implementing Agency:
PAO: Vice - Minister in the Ministry of Regional Development and Construction
Wspolna 4 St., 00-926 Warsaw, phone: + 48 22 661 91 19, fax: + 48 22 661 91 45
Implementing Agency: Polish Agency for Regional Development, Zurawia 4a St., 00-503 Warsaw,
Phone:+48 22 629 28 88, Fax: + 48 22 627 22 46

6.2 Twinning:Not applicable

6.3 Non-standard aspects: Not applicable. DIS regulations of the “Practical Guide to Phare, Ispa & Sapard contract procedures” will be closely followed.

6.4 Contracts:
The total value of the project is 21 250 000 Euro. The project will be implemented under 2 works contract, expected value of the 2 works contract is 20 506 250 EURO, including PHARE resources 11 500 000 EURO. Additionally the contract with Engineer which total value is 743 750 EURO financed by Polish side will be signed.

7. Implementation Schedule
7.1 Start of tendering / call for proposals: 01.01.2002
7.2 Start of project activity: 01.04.2002
7.3 Project Completion: 30.09.2004

8. Equal Opportunity
The procedures applied in the implementation of the project will be based on Polish law, securing equal opportunities for all organisations and persons irrespective of sex, race and nationality. The participation of both sexes in employment will be based on the standards applied in the European Union concerning equal opportunities for men and women, which will be secured by official advertising of jobs in the press.

9. Environment
The environmental impact assessment was prepared for each sub-project and is available at the beneficiary’s office. The implementation of the sub-projects will respect the requirements of Polish and EU environmental law (Directive 85/337/EC and 97/11/EC). Activities providing for proper environment protection are foreseen in all sub-projects, and the negative impacts during works will thus be minimised. Summary of the environmental impact assessment included as annex 6. According to attached opinion of the Regional Nature Conservator the negative impact of cutting down of two trees will be limited by planting new trees and preserving ones growing next to the planned route of the by-pass.

10. Rates of return
A financial analysis have been performed for each sub-project proposed for implementation, from the point of view of the long-term effects, and the impact of the project on the sustainable development of the country is demonstrated. The analyses include key ratios which determine the profitability of the project, i.e. the Net Present Value and the Financial Rate of Return IRR.

Sub-project 1: Pszczyna Circular road: Internal return rate IRR 11.51%. Net present value – NPV\(R=0.06\) = 55.6 MEURO; NPV\(R=0.12\) =3.2 MEURO. Cost/benefits (B/C) ratio 1.8 for R=6%; 0.95 for R=12%. The feasibility study has been carried out by Krakowskie Biuro Projektów Dróg i Mostów branch in Katowice sp. z o. o. (5.09.2000). According to the “Instruction on the economic effectiveness evaluation for road and bridge projects” the limiting minimum profitability for national roads is established at a level of discount rate r = 0.12 (IRR= 12%). IRR obtained for the northern by-pass of Pszczyna is slightly lower (IRR= 11.51%), so below the effectiveness threshold for national roads. It shall be remembered, however, that in case of provincial roads it is very difficult to obtain effectiveness ratios comparable with effectiveness ratios calculated for national roads loaded with considerable heavier traffic.

Sub-project 2: Ustron circular road: Internal return rate IRR =12.1%. NPV\(R=0.12\) =6455727 PLN; NPV\(R=0.06\) =98 387 PLN. IRR is consistent with the “Instruction on the economic effectiveness evaluation for road and bridge projects”.

The feasibility study has been carried out by Mosty Katowickie sp. z o. o. in Katowice, and is available at the beneficiary’s office.

11. Investment criteria
11.1 Catalytic effect:
Phare support will be conducive to achieving economic and social cohesion goals in Slaskie voivodship goals which could otherwise be attained only after a much longer period and on a more modest and less efficient scale.

11.2 Co-financing:
The project demonstrates clear co-financing by the Polish partners.

11.3 Additionality:
The Phare project is not displacing other financing sources, especially from the private sector and IFI system, it is co-financing identified priorities and not taking the place of national resources.

11.4 Project readiness and Size:
The project is ready for contracting and disbursement, as the sub-projects will meet all conditions for cofinancing by the start of project implementation. Financial and environmental analyses were carried out.

11.5 Sustainability:
The project will contribute to the long-term sustainable development of the region, as described in the Slaskie voivodship Operational Programme. Expenditure on project maintenance will be covered by the beneficiaries

11.6 Compliance with state aid provisions:
All aspects of the project will be developed with respect to the state aid provisions of the Europe Agreement.

11.7 Contribution to Preliminary National Development Plan:
The project accords with two priorities of the Preliminary National Development Plan and as such will contribute to increased economic and social cohesion of the country and region.

12. Conditionality and sequencing
The co-financing of the project will depend on:
• the securing of co-financing by the regional, municipal and central budgets,
• appropriate environmental impact assessments and feasibility studies conducted and accepted by the start of project implementation;
• maintaining timetable set in the programme;
• completion of land acquisition before the start of tendering;
• obtaining building permission before the start of tendering;
• fulfilment of the requirements as regards contracting, reporting and monitoring.
• selecting contractor enable for proper realisation of works.

Benchmarks:
• Feasibility Study and Environmental Impact Assessment prepared on August and September 2000
• Financing memorandum signed by end of 2001
• Construction designs prepared by 3rd quarter of 2001
• Preparation of tender documentation by 4th quarter of 2001
• Resources earmarked for Phare co-financing of programme reach National Fund on January 2002
• Beneficiary contracts project activities by 2nd quarter of 2002
## Annex 1: Logframe planning matrix for project

**Date of drafting:** 13.12.2000

**Planning period:** 2002-2004

<table>
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<th>Project title:</th>
<th>Transport infrastructure of Slaskie voivodship</th>
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### Wider objective

**Strengthening economic and social cohesion of the Slask voivodship through improvement of transport infrastructure**

**Indicators of achievement:**
- Increase of regional GDP per capita
- Decrease of unemployment rate

**Sources of information:**
- Main Statistical Office
- Fast track growth of Polish economy
- Implementation of active forms of combating unemployment

### Immediate objectives

**Enhancing investment attractiveness of the area**

**Indicators of achievement:**
- 40 new enterprises established after 2 years in the investment areas accessed from the road (or within 1 km from the project).
- 1300 net jobs created after 2 years in the investment areas accessed from the road.
- Decrease of accidents by 50% after 1 year.
- Decrease of vehicles in Pszczyna centre by 50% after 1 year (from 1 400 to 700).
- Decrease of vehicles in Ustron town by 75% after 1 year (from 910 to 227)

**Sources of information:**
- Beneficiary data
- Gmina's data
- Voivodship Statistical Office
- Expert reports
- Evaluator reports
- Police data

**Assumptions and Risks:**
- Continuation of industrial restructuring (in coal, steel and textiles) in Slaskie voivodship.
- Continuation of measures/actions in support of SMEs at all levels of local government.
- Stable conditions for the operation of enterprises in the region.

### Results/products

**Construction of voivodship road**

**Indicators of achievement:**
- 7.3 km of voivodship road constructed/modernised
- Improved connections between Rybnik Agglomeration and the national road No. 1 -the main north–south thoroughfare from Gdansk to the border with the Czech Republic and Slovakia
- Increase of ESS from 45,12 to 63,78 km/h
- Improved access to the tourist attractions of the town and nearby Lake Goczalkowickie (increase of ESS from 26,06 to 83,40 km/h)
- Improved access to the border with the Czech Republic (increase of ESS from 41,26 to 42,62 km/h)
- Improved access to the border with Slovakia (increase of ESS from 35,16 to 35,95 km/h)
- Improved access to the tourist centres in the Beskidy Mountains, i.e. Ustron and Wisla (increase of ESS from 46,33 to 69,50 km/h)
- 10 ha of investment areas accessed. 300 new or safeguarded jobs

**Sources of information:**
- Expert reports
- Beneficiary data
- Gminas' statistics

**Assumptions and Risks:**
- Timely commencement of sub-projects implementation.
- Timely and proper execution of the sub-projects by contractors.
- Secured beneficiaries cofinancing

### Activities/Input

**Construction of 7.3 km of voivodship road. Financial input:** 21.25 MEUR, including 11.50 MEUR from Phare (Pszczyna 17 500 000 Euro, Ustron 3 750 000 Euro)

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**PL01.06.06.02 Transport infrastructure Slaskie – p.7**
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### Implementation

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Annex 5 - Feasibility study for the project: “Northern by-pass of the town of Pszczyna”- summary.

1. Feasibility study for the project: “Northern By-Pass of the Town of Pszczyna” prepared by Transprojekt Krakowskie Biuro Projektów Dróg i Mostów Ltd. on September 2000.

2. Aim of the construction task:
   - rationalisation of transport within the whole region,
   - improvement of conditions and traffic safety,
   - elimination of through-traffic from the town centre (possibility of changes in the traffic organisation – limitation of heavy vehicle traffic),
   - relief of the local road network (accessibility improvement, traffic capacity increase),
   - improvement of environmental conditions.

3. It is very important for the traffic system in the town to protect historic buildings located in the town centre, especially those protected by conservation law. The town area around the market square makes a well preserved medieval urban system of the old town. The system consists of numerous architectural monuments coming from the 18th and 19th cent. – a neobaroque castle where the National Castle Museum is located, a historic park of Pszczyna of an area of 156 ha, a heritage park “A Village Farm of Pszczyna Region” occupying an area of c.a. 2.0 ha, a neobaroque evangelic church and a catholic church in the same style. All structures mentioned above, including the entire part of the historic town centre, will get an additional protection resulting from the elimination of considerable traffic streams from the areas of their location.

4. The design construction task consists in the construction of a transport traffic route class G1/2 of a length of 4.8 km, including crossings with roads and streets, two-level interchange at the crossing with the national road No. 1. Additionally, collecting roads shall be constructed. Within the confines of the project some elements of environment protection shall be built: rain water treatment facilities, noise barrier and isolating green belts.

5. Adopted technical parameters:
   - \( V_p = 70 \text{ km/h} \)
   - Load 110 kN/axle
   - Traffic category R4 (traffic category takes into account trucks and trucks with trailers,
   - One carriageway 2 x 3.50 m = 7.0 m
   - Strengthened shoulders 2 x 2.0 m
   - Earthen shoulders 2 x 0.75 (1.25 m)

6. The results of the traffic forecast show that within the route of the existing provincial road No. 49 (Zorska Street and Bielska Street) 60 to 80 % of the traffic, mainly through-traffic, will be eliminated.

7. According to the “Instruction on the economic effectiveness evaluation for road and bridge projects” the limiting minimum profitability for national roads is established at a level of discount rate \( r = 0.12 \) (IRR = 12%). IRR obtained for the northern by-pass of Pszczyna is slightly lower (IRR = 11.51%), so below the effectiveness threshold for national roads. It shall be remembered, however, that in case of provincial roads it is very difficult to obtain effectiveness ratios comparable with effectiveness ratios calculated for national roads loaded with considerable heavier traffic.

8. Preparatory works
   - Feasibility study - Aug. 2000
   - Analysis of costs and profits - Aug. 2000
   - Financial analysis - Aug. 2000
   - Appraisal of the impact on the environment – a study - Aug. 2000
   - Design Documents – geodetic measurements, geologic expert’s opinion, analysis of traffic including traffic forecast, building design, method statement and appraisal of impact on the environment - Aug. 2001
   - Construction Permit - Nov. 2001
   - Prepared Tender Documents - July 2001

A study of the realization of the investment project „Extension of the Bypass in Ustron” – summary.

1. The feasibility study for the project was prepared by Design, Building Repairs Enterprise Mosty Katowickie Ltd. (completed on September 2000)
2. The project is about extending the bypass in Ustron by about 2450 m. The role of the bypass is to reduce the traffic on the existing Ustron-Wisla road, improve the safety and traffic conditions, decrease the influence of the road on the environment and improve conditions for the commercial transport of goods and for the development of new trade, services and industry centres as well as small and middle-sized enterprises.

   The existing road is the only road connection between Ustron and Wisla, it constitutes a part of the route to Istebna and Koniakow for travellers from Katowice.

3. The planned investment “Extension of the Bypass in Ustron” will be used directly by the inhabitants of Ustron and the Silesian Province and indirectly by tourists heading for Beskid Slaski i Zywiecki.

4. It is estimated that the realisation of the project will improve the living conditions of the local population, enable development of small and middle-sized enterprises, improve accessibility and the safety of pedestrian traffic.

5. On the whole length of the road the class “G” 1x2 is planned, which means that the road should have one roadway and two traffic lanes (in the future the road is to be modernised so as to consist of two roadways with two traffic lanes for each). The following parameters are to be taken into account:
   • the width of the road equals 9.00 m (two traffic lanes 3.50 m wide each + 2.0 m wide emergency lane)
   • earth shoulders at least 1.0 m wide on both sides
   • the minimal width of the road crown (roadway + shoulders) equals 11.0 m outside built-up areas
   • the speed according to the project equals 70 km/h.

6. The beginning of the stretch km 00+000 is located where the old road intersects with the end of the already built stretch of the bypass. The scope of the study ends on the border between the towns Ustron and Wisla, i.e. km 2+429.31.

7. The planned investment does not have any architectural barriers for the enabled on wheelchairs.

8. The spatial, functional and technical solutions which limit or eliminate the influence of the investment on the natural environment, human health and other buildings are designed in accordance with separate detailed regulations and the applying Polish standards.

9. The financial analysis was carried out for permanent prices, taking the estimated costs of the investment outlay in the 2nd quarter of 2000 as the basis. The analysis applies for the time span of 2000 till 2025.

10. The following working plans have been made for the investment project “Extension of the Bypass in Ustron” by now:
   • an initial plan for the extension of the bypass in Ustron, the Planning, Building and Renovation of Bridges Company “Mosty Katowice” Ltd., Katowice 2000
   • an initial plan for the extension of the bypass in Ustron – an initial cost calculation and building schedule, the Planning, Building and Renovation of Bridges Company “Mosty Katowice” Ltd., Katowice 2000
   • a study of the realisation of the investment project “Extension of the Bypass in Ustron”, Katowice 2000
   • a study of the influence on the environment for the investment project “Extension of the Bypass in Ustron”, Katowice 2000

   The rest of the working plans will be made with the following deadlines:
   • working out building plan - 30.05.2001
   • working out a realisation plan - 31.06.2001

Annex 6
The environmental impact assessment of “The construction of the northern by-pass of Pszczyna town (km 0+000- km 4+800)” - summary.

1) The environmental impact assessment of the construction of the northern by-pass of Pszczyna town (km 0+000- km 4+800) was prepared by “Ekosystem Slask” on August 2000.

2) The present report has been prepared following the Directive 85/337/EC and 97/11/EC and also according to the following World Bank materials: Introduction to the World Bank Procedures, concerning Environmental Impact Assessment (EKOKONSULT Gdansk, July 1999) and to the Operation Directive 4.00 introduced in 1998 by the World Bank in Annex A (changed into Operation Directive 4.01: Environmental Assessment) on requirements concerning EIA process for projects financed by the World Bank, and to the Polish legal requirements.
3) The analysed investment has been introduced into the land use plan of Pszczyna town (enclosed the map with the by-pass route).

4) Analysis of the potential environmental risk connected with Pszczyna by-pass construction and operation has shown that:

a) In the field of air pollution emission from vehicles the standard levels of all analysed air quality parameters are reached in a distance of 10 m from the road edge; in the range of over-standard impact areas agriculture and forest areas are situated; within this range no dwelling houses have been found; the designed greenery along the by-pass and growing vegetation on slopes as well as recommended limitation in using arable land (change of cultivation profile) will reduce air pollution levels to acceptable ones,

b) In the field of acoustic climate risk it has been stated that construction of the road section will not cause the risk for settlement areas in the vicinity of the by-pass (areas protected against noise); within the range of the noise impact single buildings have been identified situated in areas not protected against noise; in order to reduce the potential noise effects passive protection measures have been designed (exchange of windows into these of increased acoustic insulating power) and introducing changes into the existing land use plans excluding location of dwelling houses in the range of impact above standards,

c) The designed route will not cause any risk caused by mechanical vibration impact in buildings situated in the vicinity of the by-pass,

d) The by-pass will run in the protection area of usable ground water reservoir (OWO- area of high protection) and it can cause risk for water of this reservoir; the designed drainage system (collection of run off water in leak-proof ditches or channels equipped with protection system for cases of accidental environmental risk) will ensure the appropriate protection of underground water,

e) The by-pass surface run of water will be collected to leak-proof channels or ditches and will be treated in two-stage treatment system; the designed installations will ensure keeping the acceptable level of water quality at the outlets to receivers; treatment system will be equipped with protection measures against accidental environmental risk resulting from accidents or catastrophes,

f) In the aspect of risk for natural and landscape values the designed road will run in the protected area and will disturb the existing natural resources under protection - the natural monument alley of oaks. The road can be realised under control the Regional Nature Conservator (conditions described in his opinion of 13.12.2000 - attached).

g) The designed road will not cause any risk for archaeological heritage,

h) Construction and operation of the by-pass will cause generation of solid wastes (acc. To The Regulation of the Minister of Environmental Protection, Natural Resources and Forestry on solid wastes classes- Dz. U. 1997, no. 162, item 1135), - earth from excavations, concrete debris and waste water sludge; after getting building permission the investor should apply for permission concerning solid wastes storage and dumping,

i) The designed by-pass will ensure appropriate functioning of the individual environmental components during construction, operation and accidental situations causing environmental risk during break downs and catastrophes on the by-pass with dangerous substances participation,

j) The basic alternative indicated for realisation is the most favourable one from environmental and economic and social needs satisfaction view-point,

k) During the work on the project design public hearing process has been conducted; the final design in regards conclusions from the public consultation,

l) The by-pass has obtained all necessary agreements of institutions giving opinion to the project from environmental point of view,

Within the report directives have been formulated for the designer, investor and contractor and principles for environmental monitoring with indication of the environmental component, range of measurements and institution supervising monitoring activities.

Construction of the by-pass will imply positive effects for the environment through:

a) Reduction of emission of atmospheric air pollution substances in following amounts: 60 Mg/y of dust, 130 Mg/y sulphur dioxide, 300 Mg/y of nitrogen dioxide, 190 Mg/y of carbon monoxide; it will be connected with overtaking the transit traffic by the by-pass and increasing traffic capacity of the town streets,

b) Reduction of noise in about 3-5 dB in the centre of Pszczyna will be connected with overtaking the transit traffic by the by-pass and increasing traffic capacity of the town streets,
c) Reduction of damage risk of buildings located in the vicinity of the existing transportation routes, including monument buildings with construction not adapted for the pressure of the existing communication traffic.

4) The following alternatives of project have been analysed:
   a) two alternatives - variant avoiding infrastructure and basic which is the best one of those possible for the realisation),
   b) zero alternative (no project).
In the context of social and environmental aspects the most conflicting alternative is zero alternative. The existing environmental and human health hazards caused by high traffic intensity in the town centre, limitation of habitable function of the centre will cause further environmental degradation and worsening of human health and living comfort. From the view-point of environmental advantages resulting from the by-pass construction and possibilities for reduction of existing environmental pressure the zero alternative cannot be accepted.

The alternative of the by-pass construction in terms of environmental conflicts is comparable to the basic alternative. From the viewpoint of environmental risk will cause conflicts which require migration measures application. However, the solutions presented in this alternative cause higher social and spatial conflicts.

It results from the above that construction of the by-pass according to the basic alternative is most favourable. It is optimum solution- brings the highest environmental, social and economic (comparing to zero alternative) advantages, causes the least environmental and spatial conflicts and is economically justified.
The by-pass realisation according to the basic alternative is in accordance with environmental requirements, local law and also it has social acceptance.

The Environment Impact Assessment for the project of „Extension of the Bypass in Ustron” – summary.

1. The Environment Impact Assessment for the project was prepared by Design, Building and Repairs Enterprise Mosty Katowice Ltd. on September 2000.
2. The Environment Impact Assessment is coherent with the European Union Directive number 85/337/EC and 97/11/EC and to the Polish legal requirements.
3. The analysed investments involves building the lengthening of Ustron town ring road that will take over 90% of the road traffic running along local roads at present in the direction Katowice - Wisla, Istebna, Koniaków and make the traffic more fluent.
4. The investment will not have a crucial influence either the change of the air pollution condition or the acoustic climate but will improve the standard of living of the residents on the areas of central residential part of Ustron Polana.
5. The calculated concentrations of the pollutants emitted by the engine vehicles will not exceeded the admissible for the areas of health resorts and forest promotion complexes standards beyond the road belt with the exception of nitrogen dioxide of which the excessive concentration can be spread over the area up to 55 m along the road.
6. The taken measurement of noise let us state that one might expert the emission of noise exceeding the admissible level for the health resorts (50dB) to the distance 100 m from the road and in relation to standards for residential areas (55dB) up to the distance of ca 50 m (which takes place at present) and at the same time be prepared for the necessity of building the acoustic screens in the residential regions.
7. The zone of the limited usage 30 m wide suggested in the conception will demand enlarging up to ca 55 and in places not to be screened against noise up to ca 100 m. Creating of such a zone will not be practically connected with the changes of the way of cultivating the areas or changes in the site planning.
8. The road exploitation will not influence the quality of surface waters and soil (beyond the road belt).
9. The planned investment does not interfere with the regions of special landscape value and is in agreement with the Ustron town site planning.