1. Basic information

1.1 Number: PL01.08.04
1.2 Title: Construction of the by-pass for the town of Zagan, 4,906 km long, in the course of the national road no 12 Leknica - Szprotawa
1.3 Sector: Infrastructure
1.4 Location: Poland, Province of Ziemia Lubuska and the region of Brandenburg, District of Zagan, 50 km away from the Polish-German border

2. Objectives

2.1 General/strategic objective:
Reinforcement of polish transport infrastructure. Implementation of communication infrastructure system development programme, which requires leading the transit traffic out of the town. Improvement of environmental conditions
General increase in economic activities through the development of tourist and recreational possibilities

2.2 Direct objectives:
Eliminating of dangerous and inconvenient transit traffic from the town, increase in speed of travelling, shorter travelling time, lower number of road accidents, lower level of exhaust gases and noise, lower costs of road maintenance, creation of new jobs.

2.3 Priority of Partnership for Membership and the National Preparation Programme for the Membership in the European Union
This investment is in accordance with the objectives defined in Partnership for Membership and, in particular, in the National Preparation Programme for the Membership in the European Union. This programme assumes:

### intensifying of works in the range of construction of highways, modernisation of international railway lines and roads being a part of the transeuropean transport ways system and covered by the European network scheme
### preparation of study works and implementation of the investment in the range of transport infrastructure shall be financed from budget resources of the Polish government with considerable financial support of PHARE funds and loans from the World Bank
### over the years ahead, the basic priority in the transport sector shall be the continuation of modernisation and rebuilding of transport infrastructure, with special regard to border crossings and access roads to border crossings
### introduction of obligatory environmental impact assessments

2.4 Participation in the National (or Preliminary) Development Plan (NPR) as well as Joint Programme Document (JPD) Phare CBC or Phare CBC/Interreg IIIA
Transport infrastructure plays the key role in efforts aiming at the reduction of regional differences in economic growth. Therefore one of priorities of the policy aiming at building national links identified in the Preliminary National Development Plan, in the form of an annex to NPAA, is the integration of polish economy through the modernisation and development of transport networks. Therefore all activities, according to the priority, focus on transport infrastructure existing in Transeuropean Networks and they shall be supplemented by activities undertaken in regions as a contribution to the building of economic and social links in the country. They are written down in accordance with the priority "Reinforcement of development potential of regions and preventing some areas from becoming of minor importance". One of the countermeasures proposed according to the priority is "The Development and modernisation of infrastructure aiming at higher competition". This project is in accordance both with the Preliminary National Development Plan and the operational programme for the Province of Ziemia Lubuska.
The development of cross-border co-operation has been included in the Preliminary National Development Plan. The implementation of this task will give rise to higher economic activity of the border regions and will have an impact on economic growth of border communes.

2.5 Effect transcending the border
The planned investment is located in the border area. The road traffic goes by the national road no 12 to the border crossing in Leknica as well as Olszyna and Przewóz.

Due to the construction of the Zagan by-pass, the traffic capacity in the important east-west direction, on L298, shall be considerably improved.

The project is a result of mutual German-Polish efforts aiming at the development of transport infrastructure in the Polish-German border area, according to the EU standards. The extension of road networks in Brandenburgh also implies the elimination of transit traffic of trucks as well as long distance traffic of personal vehicles from towns by the construction of road by-passes. Implementation of this project will assure higher standard of travelling, especially for the growing tourist traffic from the countries of the European Union, it will improve the cross-border transport infrastructure.

The traffic capacity will increase, the travelling time will be shortened and the cross-border transport will be improved, thus enhancing the development of economic, scientific and tourist exchange.

3. Description
3.1 Origin and substantiation:
The investment is a phase of the final solution of the transport lay-out in the border area. Uniformly and densely constructed road system as well as sufficient number of border crossings will assure proper economic and tourist development of the whole region. The national road no 12 Leknica – Zary – Zagan – Szprotawa is a very important part of the cross-border transport system. It takes traffic to three border crossings in Leknica, Olszyna and Przewóz and is an access road to the border. The by-pass of the city of Zagan is the final realisation stage of by-passes of cities located along the above mentioned national road. Current transport lay-out excessively impedes functioning of the centre of Zagan, is dangerous for natural environment, dwelling houses and valuable monuments of European culture as well as for the structure of the main bridge in the town over the Bóbr river.

The national road no 12 will be an emergency transport solution in case the highway is put out of operation.

The project is connected with other ones co-financed by the Phare funds in the field of transport. The General Directorate of Public Roads, Office in Zielona Góra is prepared to implement the investment. The design documentation is prepared and necessary financial resources amounting to 60% of the investment value are assured. The enterprise has got the full approval of the Voivode, the Marshall of the District, the City Council and the Management of Zagan.

This undertaking, through the improvement of transport infrastructure in the border region Poland-Germany, would be the visible contribution to the transport integration of Poland with the European Union.

3.2 Related activity
Dozen or so road investments of considerable importance to the improvement of the transport system have been implemented within the transport infrastructure extension in the Lubuskie District. These investments have been financed from the Phare and the World Bank funds.

Projects integrally connected with the considered investment:
- Contract no PL 9604-01-01-L003 “Construction of the XXX-lecia road in the locality of Zary in the course of the national road no 12”
- Contract no PL 9701-01-01-02 “Construction of the by-pass of the city of Zary in the course of the national road no 12”
- Contract no PL 9701-01-02-L002 “Construction of the by-pass of the city of Zary, stage II – modernisation of a section of the national road no 12”
- Contract no PL 9802-01-01-04 “Construction of the by-pass of the city of Szprotawa in the course of the national road no 12”

3.3 Results:
Building of the new road section 4,906 km long and transference to the public use.

3.4 Products/results:
- Gaining qualified personnel for the management of the project, supervision, design and construction works.
- Obtaining construction materials, equipment and machines.

3.5 Costs
Construction of the new road section 4,906 km long together with objects. The total cost of the investment amounts to 7,934 MEUR, including 3,000 MEUR of Phare funds and 4,934 MEUR of budget resources.

4. Institutional framework

On the central level
General Directorate of Public Roads
Address: 00-921 Warszawa, ul. Wspólna 1/3
Contact person
Mr. Stanislaw Szkudlarek
Deputy of General Manager
tel: 48 22 628 29 45 fax: 48 22 621 05 07
General Directorate of Public Roads
South-West Division Office in Zielona Góra
Address: 65-950 Zielona Góra, ul. Boh. Westerplatte 31
Contact Person
Mr. Janusz Lewicki
General Manager
tel: 48 68 327 07 57 fax: 48 68 325 34 68

institution signing the contract
General Directorate of Public Roads
South-West Division Office in Zielona Góra
Address: 65-950 Zielona Góra, ul. Boh. Westerplatte 31
Contact Person
Mr. Janusz Lewicki
General Manager
tel: 48 68 327 07 57 fax: 48 68 325 34 68

responsible institution
General Directorate of Public Roads
South-West Division Office in Zielona Góra
Address: 65-950 Zielona Góra, ul. Boh. Westerplatte 31
Contact Person
Mr. Janusz Lewicki
General Manager
tel: 48 68 327 07 57 fax: 48 68 325 34 68

5. Detailed budget

<table>
<thead>
<tr>
<th>financed by PHARE CBC 2001</th>
<th>MEUR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment</strong></td>
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<tr>
<td>support</td>
<td></td>
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<tr>
<td>Institution building</td>
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</tr>
<tr>
<td>Total Phare</td>
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</tr>
<tr>
<td>National co-financing</td>
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<td>IFIs</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</tr>
<tr>
<td>Construction of a new road section together with objects</td>
<td>7,934</td>
</tr>
<tr>
<td>3,000</td>
<td>-</td>
</tr>
<tr>
<td>3,000</td>
<td>4,934</td>
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<tr>
<td>Total</td>
<td>7,934</td>
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<tr>
<td>3,000</td>
<td>-</td>
</tr>
<tr>
<td>3,000</td>
<td>4,934</td>
</tr>
</tbody>
</table>
| **Budget resources for this investment are reserved in the state budget**

6. Implementation arrangement

6.1 Implementation department

Preparation and execution of tender procedure:
Implementing Authority for Phare Cross-Border Co-operation Programme
General Directorate of Public Roads South-West Division
Office in Zielona Góra
Conclusion of Contract with a contractor:
Implementing Authority for Phare Cross-Border Co-operation Programme
6.2 Twinning
Not applicable

6.3 Non-standard aspects
During the implementation of the task non-standard procedures related to the contract are not provided for. The investment will be executed according to The Handbook of Decentralised Realisation (DIS)

6.4 Contracts
Only one tender procedure for the Phare component is planned and one contract will be signed. The value of the contract is 7,934 MEUR. It will be tender procedure for works.

7. Implementation schedule

7.1 Start of tendering
I quarter of 2002

7.2 Start of project activity
II 2002

7.3 Completion
IV 2004

8. Equal opportunities
Opportunities of employment for men and women will be based on relevant standards of the European Union concerning EOE (Equal Opportunity of Employment), which will be assured by an official announcement in the press during the employment procedure.

9. Impact on natural environment
The evaluation of impact on environment has been elaborated for this project in 2000. The evaluation has been made by Firma Projekowo-Handlowa ###ZABORZE### in Jelenia Góra and is available in Beneficiary.
It covers the main and most substantial elements of environment:
### geological environment
### soil and underground water
### elements of landscape and flora
### protection of atmospheric air
### waste-water disposal
### acoustic climate

10. Rates of return
The following has been carried out for the project:
financial internal rate of return FIRR - 32,50 %
economic rate of return ERR - 42,00 %

11. Investment criteria
11.1 Catalytic effect:
The investment:
Will play an important role in the economical and tourist development of the region.
Will involve other activities in accordance with the policy of integration (e.g. facilitation of transit
traffic, health protection, etc)
11.2 Co-financing:
The project is co-financed by the government funds to the amount of 62 % of total costs of the
investment. The Polish party is financing payments related to the preparation of the investment
as well as covers the part of costs of the construction works.
11.3 In addition:
Other sources of financing will not be eliminated
11.4 Preparation and size of the project:
The General Directorate of Public Roads Office in Zielona Góra is prepared to implement the
contract. The evaluation of impact on the environment as well as financial and economic
analysis have been elaborated. The Design Documentation is also prepared. The size of the
project is planned for 7,934 MEUR
11.5 Permanent effects of the projects
The project provides permanent solution for road safety problems and shorter travelling time. It
will be sufficient for the planned traffic flow for the period of 30 years.
Funds for the maintenance of the project after it is completed have been assured and they come
from the government budget.
11.6 Compliance with provisions concerning governmental support
The project complies with provisions concerning governmental support in this type of
investments
11.7 Contribution to the National Development Plan and Joint Programme Document
The integration of Polish economy through the development of transport networks covers:
modernisation and development of road and railway network in transeuropean transport ways
(TINA network) including activation of highways construction programme, commencement of
road surfaces reinforcement programme, reinforcement of bridges, improvement of road and
traffic management system as well as control of road users’ compliance with binding standards
and rules, especially those which concern traffic safety.

12. Conditionality and sequencing
The project is just being prepared for implementation
<table>
<thead>
<tr>
<th>Annex 1 LogFrame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logframe planning matrix for the construction of the by-pass of Zagan</td>
</tr>
<tr>
<td>Date of drafting: November 2000</td>
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<tr>
<td>Planning period: January 2002 - December 2004</td>
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<table>
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<tr>
<th>Project number:</th>
<th>Project title:</th>
<th>Phare 2001</th>
<th>Total budget of the project</th>
<th>Total EUR: 7 934 000</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>4 934 000 EUR</td>
<td>Phare EUR: 3 000 000</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Wider objective</th>
<th>Indicators of Achievement</th>
<th>Assumptions and risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>### improvement of environmental conditions</td>
<td>### travelling time through towns</td>
<td>### changes of legislature, national and European Union policy in the field of transport</td>
</tr>
<tr>
<td>### reduction of life and health hazard</td>
<td>### traffic capacity in the border area</td>
<td></td>
</tr>
<tr>
<td>### improvement of travelling standard</td>
<td>### number of road accidents</td>
<td></td>
</tr>
<tr>
<td>### general growth of economic activity through the development of tourist and recreation possibilities</td>
<td>### number of new investors</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Immediate Objectives</th>
<th>Indicators of Achievement</th>
<th>Sources of information</th>
<th>Assumptions and risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>### higher travelling speed</td>
<td>### number of accidents</td>
<td>### general measurement of traffic</td>
<td>### delay of contract procedures</td>
</tr>
<tr>
<td>### improvement of traffic safety</td>
<td>### savings of engine fuels</td>
<td>statistical data GUS</td>
<td>discrepancies concerning organisation of the project, co-ordination and management</td>
</tr>
<tr>
<td>### shorter travelling time</td>
<td>### surface load-carrying ability</td>
<td>SOSN measurements GDDP Warszawa after completion of the by-pass</td>
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<tr>
<td>### lower level of exhaust gases emission and noise</td>
<td>### level of exhaust gases in the city centre</td>
<td></td>
<td></td>
</tr>
<tr>
<td>### creation of new jobs</td>
<td>### travelling time, travelling speed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>### number of new jobs</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Results/Outputs</th>
<th>Indicators of achievement</th>
<th>Sources of information</th>
<th>Assumptions and risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>### improvement of transport</td>
<td>### compliance with Contract Documents, including the plan of works, time schedule of implementation and take over protocols</td>
<td>### tender documents GDDP Office in Zielona Góra</td>
<td>### all the means available on time</td>
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<tr>
<td>### improvement of traffic safety</td>
<td></td>
<td>### technical design GDDP Office in Zielona Góra</td>
<td>proper qualifications and skills of the main contractor and subcontractors</td>
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<tr>
<td>### lower pollution of environment</td>
<td></td>
<td>### minutes from meetings, reports, documents presented by the Contractor and the Supervising Engineer during implementation of the by-pass</td>
<td>proper management and supervision of works</td>
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<tr>
<td></td>
<td></td>
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<td>changes among proposed employees</td>
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<table>
<thead>
<tr>
<th>Activities</th>
<th>Inputs</th>
<th>Sources of information</th>
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<tr>
<td>### construction of the new road section 4,906 km long and transference to the public use qualified workers</td>
<td>### necessary outlays for the project implementation amount to 3,0 MEUR - Phare funds 4,934 MEUR – budget funds</td>
<td>### contracts signed by GDDP Office in Zielona Góra and the Contractor before commencement of by-pass construction</td>
</tr>
<tr>
<td>### building materials, equipment and machines</td>
<td></td>
<td>### minutes from meetings, reports, documents presented by the Contractor and the Supervising Engineer</td>
</tr>
</tbody>
</table>
### Annex 2-4 Cumulative implementation, contracting and disbursement schedule

<table>
<thead>
<tr>
<th></th>
<th>I '02</th>
<th>II '02</th>
<th>III '02</th>
<th>IV '02</th>
<th>I '03</th>
<th>II '03</th>
<th>III '03</th>
<th>IV '03</th>
<th>I' 04</th>
<th>II' 04</th>
<th>III' 04</th>
<th>IV' 04</th>
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<tr>
<td><strong>Implementation schedule</strong></td>
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<td>I</td>
<td>I</td>
<td>I</td>
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<td><strong>Contracting schedule</strong></td>
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<tr>
<td><strong>Disbursement schedule</strong></td>
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<td>2.8</td>
<td>2.9</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

D = design of sub-projects / C = tendering and contracting / I = contract implementation and payment
ANNEX NO 5 - REFERENCE TO THE FEASIBILITY STUDY.
Advantages gained due to the implementation of the project include the improvement of road safety, lower noise level within the central part of Zagan, shorter travelling time, improvement of traffic conditions. The feasibility study of the project includes all the financial aspects (calculation of results, balance, cash flows and forecasts of demand). All these data can be obtained from the feasibility study reports.
The following complex elaborations make up the above analysis:
- conceptual design study
- environmental impact assessment
- financial and economic analysis
- preliminary cost estimation of the project

The need for the execution of the investment which is in accordance with the development plan results from detailed analysis. It will not have a negative impact on the environment. The used technologies will minimise a negative impact of road traffic on the environment. Besides, they will lower the level of noise and exhaust gases emission in relation to the existing state. An increase in such a factor as the level of traffic convenience, which is one of the basic factors determining traffic conditions on the road, will also give rise to the establishment of better interregional links (access to schools, market etc). The route of the by-pass approved in the conceptual design study as well as the used technologies and materials ensure the achievement of technical parameters on the same level as in the countries of the European Union for this type of regional road connections. The preliminary cost estimation places the project on the level of expenditures acceptable by financing institutions.

ANNEX NO 6 - Conclusions from environmental impact assessment
The by-pass runs mostly through the non-urban areas, used in agriculture as cultivable fields, allotment gardens, meadows, pastures as well as through forest in some places. The area is not covered by natural law protection.
The designed by-pass will eliminate about 9.5 ha of soil including 6 ha of pine forests from agricultural production. Assigning agricultural and forest soil to non-agricultural and non-forest purposes requires the permission of the Voivode and/or the Minister for Environment.
Marshy meadow ecosystems related to the valleys of the Bóbr and Czerna rivers of high biocenotic importance will be destroyed. Important ecological corridors will be cut and thus natural and seminatural complexes will be in danger.
Cutting of river valleys and destroying fragments of forests are the most substantial collisions stated on the basis of detailed natural valorization.
The problem of biological road surroundings is a very important issue.
The following recommendations and guidelines aiming at limiting negative impacts of the investment on the environment should be taken into account in further preparatory procedure as well as during the implementation of works covered by the building projects:
- It is recommended to line the road mostly with trees with paying special attention to the development of the land strip separating the by-pass from the bicycle-foot path in places where the by-pass runs in the immediate vicinity of the municipal building development.
- It is necessary to provide passages for animals. It concerns many mammals that use water ways and their peripheries for migration - one should make foot-bridges raised above the level of water under the bridge over the Czerna river, and culverts have to be adapted in such a way to play the role of passages for amphibian and reptilian.
- It is necessary to provide the rain water sewage system in places where the level of underground water of utility importance not only for the town of Zagan is open.
- It is recommended to collect rain run-offs by means of a sealed grassy trenches system and lead them to the sewage systems designed within crossroads, if possible. In case of leading the waste water to the receiver in the shape of superficial water or the ground, it will be necessary to purify the waste water in special sand separators before it is dropped, to meet the requirements of regulations issued by MOSZNIL 14.11.1991 (Dz.U.No 116, pos. 503).
- Protections in the shape of noise barriers with efficiency ranging from 7 dB (A) to 18 dB(A) have to be provided for the areas occupied by the existing dwelling houses. It will not be possible to specify the efficiency and the length of noise barriers before the building project has been elaborated.
- Considering that there are archaeological stands on the route of the designed by-pass it will be necessary to carry out earlier examinations supervised by qualified archaeological personnel.
Environmental impact assessment is available at the seat of the Beneficiary

ANNEX NO 7 - Conclusions from financial and economic analysis

1. FIRR = 32,50 % The net up-to-date value NPV reaches the zero value at discount rate equal to 32,50 %.
   It indicates that the execution of the investment is necessary.
2. ERR = 42,00 %
3. High level of discount rate has been achieved in both cases through an increase in travelling speed
   and thus reduction in costs related to the loss of time by passengers and reduction in the operating
   costs of vehicles.
4. Higher road capacity
5. Higher traffic safety as a result of lower number of possible road collisions
6. Lower emission of exhaust gases’ toxic constituents as a result of better traffic convenience
7. Lower level of noise

Financial and economic analysis is available at the seat of the Beneficiary