1. Basic Information
1.1. Désirée Number: PL01.06.05.02
1.2. Title: Modernisation of National Road No 61
1.3. Sector: ESC
1.4. Location: Poland, Podlaskie voivodship, poviat of Grajewo

2. Objectives
2.1. Wider Objective:
   Strengthening economic and social cohesion of the Podlaskie voivodship through improvement of transport infrastructure.

2.2. Immediate Objectives:
The immediate objectives of the project are determined directly by the regional priorities defined in the Operational Programme of the voivodship and relate to the development of regional infrastructure essential for the overcoming of the existing barriers and improving the accessibility of certain areas and localities important for the competitiveness of the region. These objectives include: Enhancing investment attractiveness of the region, especially in the field of production and services; Enhancing tourism attractiveness; Improved accessibility to the national market and markets of the Baltic States; Increased safety of travel; Increase of traffic flow of vehicles; Improvement of environmental conditions.

2.3. Accession Partnership and NPAA Priority:
The project responds to the medium term priority identified in the Accession Partnership – development of national policy for economic and social cohesion and preparation for the implementation of regional development programmes, as well as Community Initiatives. It also corresponds with the NPAA priority “Regional and cohesion policy”.

2.4. Contribution to National Development Plan:
Transport infrastructure plays a key role in the efforts to reduce regional disparities in the economic performance. Therefore, one of the priorities of the country’s cohesion policy identified in the PNPD is the “Integration of the Polish economy through modernisation and enlargement of transport networks”. Since the activities under the priority are concentrated on transport infrastructure included in the Trans-European networks, they shall be complemented by actions carried out in the regions, contributing to the enhancement of economic and social cohesion of the country. They have been described under the priority “Strengthening the development potential of regions and counteracting the marginalisation of certain areas”. One of the proposed measures under this priority is the “Development and modernisation of infrastructure aimed to strengthen the competitiveness of the regions”. It identifies co-financing of regional transport infrastructure as a principal element of building indigenous potential for economic development and regional competitiveness. The project is also in line with the operational programme for Podlaskie voivodship. It will be implemented under the OP priority and will aim at upgrading the access to areas and locations in the region, enabling the creation of added value in the regional and local economy.

2.5. Cross Border Impact:
Not applicable.

3. Description
3.1. Background and Justification:
The regional authorities identified the development of major traffic routes as a key task aimed at the improvement of the competitiveness of the region and increasing volumes of investments in respective gminas. It will improve conditions for the development of business and tourism activities. National road No 61 is located on the axis Warsaw-Suwalki / Baltic States and is one of the most important routes in the region. It is a road of interregional and international importance and forms one of the most important road system links in Podlaskie voivodship. At the moment, the section Szczuczyn-Grajewo (see map) presents the most serious traffic problems as it carries significant volumes of transit traffic. For this reason, the actions envisaged under this project are an important component of the region’s strategic approach to generating growth, by drawing on the indigenous potential of the region, which remains untapped due to the lack of access to important infrastructure. Road No 61 is an alternative route to an important international route referred to as the Via Baltica (Warsaw-Helsinki); it is parallel to it and improvement of road quality and upgrading it to the West European standards is included in the strategic
programmes of the Polish Ministry of Transport and Maritime Economy. Implementation of the project is
conformant with the future route of road S-61 and it will improve traffic conditions on the whole road No
61 from Warsaw to Augustów. The road No 61 is an element of international transport system and leads
to the border crossing with Lithuania in Budzisko. 734,313 vehicles (including 440,348 trucks and buses)
crossed the border there in 1999. Heavy truck traffic causes serious damages in the road structure,
affects traffic safety and it is extremely detrimental to the neighbouring area. The road is a component of
the main road network in the voivodship and it also has an important national role as it carries national
and international traffic.

3.2. Linked Activities:
The following sections of road No 61 are under implementation or are planned for implementation with
the co-financing from different aid funds:
section Grajewo–Rajgród from km 213+062 to km 230+656; expected implementation under the PHARE
ESC 2000 Programme;
section Barszcze–Augustów from km 235+173 to km 253+004; the value of investment is 6,3 mln EURO,
planned realisation 2002-2003;
section Piatnica–Stawiski from km 153+565 to km 175+370, financed by the World Bank, the value of
investment is 28,2 mln PLN including the share of World Bank of 56,1%, currently under implementation;
section Stawiski–Grajewo from km 175+745 to km 186+480 and from km 212+791 to km 213+062,
financed by the World Bank, the value of investment is 13,2 mln PLN including the share of World Bank
of 56,1%, planned implementation in 2000 and 2001;
section Szczuczyn-Grajewo from km 198+270 to km 211+379.

3.3. Results:
Creation 50 new jobs; Increase of the influx of tourists by 5%; Reduction of journey time by 20%;
Improvement of road quality – load capacity from 80 kN/axle to 100 kN/axle; Increase of average speed
from 80 to 90 km/h; Increase of vehicles by 20 %; Reduced accident rate by 10%.

3.4. Outputs:
Modernisation of road No 61, section Szczuczyn – Grajewo from km 198+270 to km 211+379 (13.109
km), will consist of: Increasing the load capacity of the road to 100 kN/axle; Improvement of 13.1 km of
the road; Widening the road to 7.0+2*0.5 m (on sections where the present road width is 6.0 and 7.0
m);

3.5. Inputs:
Cofinancing of selected works for the continuation of the modernisation of Road 61 as described above.

4. Institutional Framework
The Beneficiary – General Public Roads Directorate, North-Eastern Division in Bialystok. Institutions
involved: Ministry of Transport and Maritime Economy, General Public Roads Directorate in Warsaw.
The project will not result in any changes in the institutional framework specified above after its
completion. The Supervisory Engineer – will be appointed by unlimited tender (an independent
consulting company). The Employer – General Public Roads Directorate, North-Eastern Division in
Bialystok. The modernised road section, after project completion, will be administered and owned by
General Public Roads Directorate (state institution).

5. Detailed Budget, value in Euro

<table>
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<th>Phare Support</th>
<th>Investment Support INW</th>
<th>Institution Building IB</th>
<th>Total Phare</th>
<th>National Co-financing</th>
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Co-financing from the national funds: 62.2 %. National co-financing will be guaranteed from the GPRD
budget and will be available. The project has been approved by the Ministry of Transport and Maritime
Economy. Funds from the budget will also cover the costs of hiring the Engineer - 200 000 Euro.

6. 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:
6.3 Non-standard aspects: All the works will be tendered and contracted according to the regulations of the “Practical Guide to Phare, Ispa and Sapard contract procedures”

6.4. Contracts:
The total value of the project is 8 200 000 Euro. The project will be implemented under works contract, expected value of the works contract is 8 000 000 EURO, including PHARE resources 3 100 000 EURO. Additionally the contract with Engineer which total value is 200 000 EURO financed by Polish side will be signed.

7. Implementation Schedule
7.1. Start of Tendering: 1st quarter, 2002
7.2. Start of Project Activity: 2nd quarter, 2002
7.3. Project Completion: June 30, 2004

8. Equal Opportunity
Participation of men and women in employment will be equal and in accordance with the standards of the European Community concerning EOE (Equal Opportunity of Employment) – no sex discrimination.

9. Environmental Impact
The environmental impact assessment concerning the modernisation of national road No 61 from km 198+270 to km 211+379 were prepared in 2000 and is available at the beneficiary’s office. The most important environmental impacts:
  • Quality deterioration of storm-water draining from the road surface – construction of retention and sedimentation reservoirs or sewage pre-treatment is expected as a protective measure (on the basis of monitoring after completion);
  • Negative impact of exhaust gases on the quality of air, soil, forests and environmental space – protection of the adjacent area with greenery is expected to overcome the problem (on the basis of monitoring after completion);
  • Extension of the nuisant area – replacement of windows and protection with greenery is anticipated (on the basis of monitoring after completion).

10. Rates Of Return
The economic appraisal of the project was prepared in 1996 and was update in October 2000, and is available at the beneficiary’s office. IRR = 26,5%. NPV = 7,49 million pln. B/C = 1,77.

11. Investment Criteria
11.1. Catalytic Effect:
The major part of the road network in Podlaskie voivodship is covered by the programme of modernisation works aimed at the adaptation of national roads to the standards of the European Union. Implementation of these works only from the budget funds would significantly extend the execution period. Support from the PHARE Programme will facilitate a faster implementation of the priority actions related to Poland’s accession to the EU and will accelerate economic development and cohesion goals of the region. It will also facilitate transit traffic to the Polish-Lithuanian border.

11.2. Co-financing:
The project is co-financed by the Polish partners.

11.3. Addionality:
The Phare project is not displacing other financing sources, especially from the private sector and IFI system, it provides for the co-financing of the identified priorities and does not replace national resources.

11.4. Project readiness and size:
The project is being prepared for implementation. Technical documentation and the engineering design have been prepared for a part of the project. The tender documents will be prepared by the start of project implementation.

11.5. Sustainability:
The General Public Roads Directorate, North-Eastern Division in Bialystok will operate the road after its modernisation. Funds for its maintenance will be provided from the state budget.

11.6. Compliance with state aids provisions:
All aspects of the project will be developed with respect to the state aids provisions of the Europe Agreement. The project has been approved by the Ministry of Transport and Maritime Economy so the assistance of the state authorities is assured.

11.7. Contribution to National Development Plan:
The project is in line with the Preliminary National Development Plan and as such will contribute to the increasing of the economic and social cohesion of the country and region.

12. Conditionality and sequencing
Co-funding of specific activities will be conditional on:
- co-financing of project by the beneficiary;
- maintaining timetable set in the programme;
- appropriate feasibility studies conducted and accepted by the start of project implementation;
- completion of land acquisition before the start of tendering;
- obtaining building permission before the start of tendering;
- all tendering, contracting, reporting and monitoring conditions met;
- selecting contractor enable for proper realisation of works.

Benchmarks:
- Financing memorandum signed by end of 2001
- Construction designs prepared by July 31, 2001
- Feasibility Study and Environmental Impact Assessment ready by October 30, 2000
- Preparation of tender documentation by 1st quarter, 2002
- Resources earmarked for Phare co-financing of programme reach National Fund in January 2002
- Beneficiary contracts project activities by 2nd quarter, 2002
### Annex 1: Logframe planning matrix for project

**End Contracting:** 15/12/2003  -  **End Disbursement:** 15/12/2004  
**Planning period:** 2002-2004  
**Date of drafting:** August 2000  
**Project number:**  
**Project title:** Modernisation of National Road No 61  
**Total budget:** 8.2 MEURO  
**Including Phare:** 3.1 MEURO

#### Wider objective

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

- Increase of GDP per capita in the region
- Decrease of unemployment rate

**Sources of information**
- Main Statistical Office
- Experts’ reports

**Assumptions and Risks**
- Fast track growth of Polish economy
- Continued process of EU integration
- Implementation of active forms of combating unemployment

#### Immediate objectives

**- Enhancing investment attractiveness of the area, especially in the area of production and services**
**- Enhancing tourism attractiveness**
**- Improved accessibility to the national market and markets of the Baltic States**
**- Increased safety of travel**
**- Improvement of environmental conditions**
**- Increase safety of travel**
**- Increase of traffic flow of vehicles**

- 5 new enterprises within 1 km from the investment in result of realization of the project after 2 years
- 50 new jobs created after 2 years after the realization of the project
- Increase of the influx of tourists by 5% to the region
- Decrease of accidents by 10 % after 1 year (from 10 to 9)
- Increase of vehicles by 20% after 1 year (from 6500 to 8000)
- Decrease of CO₂ by 49% after 1 year (3027 mg/s to 1528 mg/s)
- Decrease of noise by 1,4% after 1 year (from 70 to 69 dB(A))

**Sources of information**
- Beneficiary statistical data
- Gmina data
- Voivodship Statistical Office
- Experts’ reports
- Evaluator reports
- Police data

**Assumptions and Risks**
- changes in the policy towards the foreign investments
- following the schedule set in the programme

#### Results/products

- Modernisation of national road
- Creation of new jobs
- Increase of the influx of tourists
- Reduction of journey time
- Improvement of road quality
- Increase of average speed
- Reduced accident rate
- Increase of vehicles

- 13.1 km of national road modernised
- 50 new jobs created after realization of the project
- Reduction of journey time by 2 minutes (20%)
- Enhancement of load capacity from 80 kN/axle to 100 kN/axle
- Increase the average speed from 80 to 90 km/h
- Reduced accident rate by 10%
- Increase of vehicles by 20%
- Widening the road to 7.0+2*0.5 m (on sections where the present road width is 6.0 and 7.0 m);  

**Sources of information**
- Expert reports
- Beneficiary data

**Assumptions and Risks**
- co-financing of project by the Beneficiary
- maintaining timetable set in the programme
- all contracting, reporting and monitoring conditions are met

#### Activities/Input

- Improvement of 13.1 km of the road (section Szczuczyn – Grajewo from km 198+270 to km 211+379) and increasing the load capacity of the road to 100 kN/axle  
grant from Phare - 3 100 000 EURO, national financing - 5 100 000 EURO
### Annex 2-4: Cumulative implementation, contracting and disbursement schedule

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Annex No 5 - Feasibility Study - Executive Summary

Economic Evaluation (Feasibility Study - December 2000) was prepared with the World Bank’s HDM (Highway Design and Maintenance Standards Model) 1995 version, so called 1995 HDM. The economic analysis based on HDM gives a higher accuracy than the traditional one, used in 1996 version calculation due to calibrated performance models instead of tabular values of calculated Vehicle Operation Costs as discrete values for a peculiar range of roughness level. Net Present Value is also available as an additional indicator of economic effectiveness (to IRR value as a complementary parameter). The following figures of economic indicators were obtained:

- Internal Rate of Return \( \text{IRR} = 26.5\% \)
- Net Present Value \( \text{NPV} = 7.49 \text{ mln zloty} \)
- Benefit Cost Ratio \( B/C = 1.77 \)

Conclusions summarizing the Environmental Impact Assessment of modernization of the national road No 61 Szczuczyn-Grajewo Section are as follow:

**Environmental Impact Assessment - Executive Summary**

**In scope of land surface and soil**

- Major earth and constructional works should be carried in a way to minimize erosion, especially on sections from km 193+700 to km 193+900, from km 194+450 to km 194+750, from km 194+850 to km 195+100, from km 195+300 to km 196+400 and from km 199+100 to km 199+600.
- Location of parking places for heavy equipment and storage yards for building materials and fuel should be carefully considered to minimize impact on land surface during modernization phase.
- Use of anti-icing agents should be minimized by mechanical removal of snow and coarse ice from carriageway; anti-icing agents should be applied only on thin ice layer. Melted mixture should be mechanically removed (by snowploughs) from carriageway to prevent its splattering over road sides.

**Noise climate.**

- After road modernization noise level will be decreased by approx. 2 dB(A) in a distance 5-6 m from the road and by 3 dB(A) in a distance 100 m from the road in the open space. The distances where standards are met will be:
- Vibrations will be significantly lower after modernization thanks to smooth pavement of improved stability after modernization. Current vibrations resulting from broken pavement sections, unevenness and patches will be eliminated. Lowering vibration level induced by vehicles will minimize vibrations of buildings and it will also decrease noise level.

**Air quality**

- Planned modernization of the national road No 61 will result in lowering ok emission of gas pollutants from vehicles year by year. Thus, impact on air quality will be minimized. Despite traffic increase in the perspective of year 2010, the emission of nitrogen dioxide will be lower then the current one by 48-52%.
- Elimination of obstacles in traffic smoothness as well as minimizing number of junctions with secondary roads will be favourable to lowering concentration of air pollutants in the neighbourhood of residential areas.

**Impact on fauna and flora**

- The modernized road crosses several ecological corridors, and the most important one is valley of the Wissa River joining directly valley of Biebrza River included into ECONET Polska network, i.e. area of international importance. Remaining corridors are of local importance (from km 192+900 to km 193+100, from km 193+700 to km 193+900, from km 194+600 to km 194+800 and from km 196+600 to km 196+750)
- Authors of this EIA think that the following solutions should be considered to harmonize modernized section of the road with existing fauna and flora:
  - While establishing roadside vegetation berries and spermatophytes should be located farther from the carriageway. Trees and bushes of mountain ash, hawthorn as well as fruit bushes where birds and animals can feed should not be planted near road.
  - Planting barberry should be avoided as cereal rust can spread on crops.
- Cultivation of root plants and fruits is possible in zone beyond 50 m from the road, especially as there are no protection means along the road, for example dense hedges, making spreading dust and heavy metals to adjacent crops difficult.
- It is allowable to decrease width of the zone without root plants and fruits down to approximately 30 m from carriageway edge if suitable protective means are executed, for example dense protective vegetation – hedges of 1.5 m height and approx. 2 m width.
• Cultivation of leaf plants and fruits purposed for direct consumption is possible only in zone beyond 90 m from the road; it is recommended to plant protective vegetation (dense bushes, roadside trees).
• Grazing and harvesting for fodder should be prohibited by law in zone from 0 to 15 m from the road as to avoid introduction of heavy metals from fodder collected at roadsides into food chain.

**Water protection**
• Sewage from carriageway can not be disposed directly onto highly permeable soil in case when water table level is shallower than 1.5 m from terrain.
• Precipitation and thaw water should be collected from carriageway surface into sewage system in built-up area.

**Transverse section**
- Number of structures and facilities (supports, lighting masts, signposts, etc.) located close to carriageway edge should be minimized as collision index increases with decreasing distance between side obstructions and the edge.
- Shoulder width should not be smaller than 1.5 m

**Conclusion**
In the light of this environmental impact assessment planned modernization of the national road No 61 Szczuczyn – Grajewo - Section will not deteriorate environmental quality nor impact people’s life when understood as meeting requirement of relevant standards, both during reconstruction and operating, with reservation proposed means minimizing impact of reconstruction and operating on the environment are applied.