# NON-TECHNICAL SUMMARY R1 EXPRESSWAY - SLOVAKIA

# **1** Introduction

The R1 Project consists of three sections of expressway between Nitra and Tekovské Nemce and the Banská Bystrica Northern Bypass ("the Project").

This Non-Technical Summary (NTS) describes the Project and summarises the results of the various environmental and social investigations carried out of the Project over its 15 year long preparation time span. The full documentation, including the Environmental Statements, Environmental Impact Assessments (EIA), Social Impact Assessment (SIA) permitting applications and decisions at the conceptual, zoning and building permitting stages, etc., can be accessed for further information and detail at:

- The NDS Communication Center "Central" located in žiar nad Hronom
- The SSC office in Banska Bystrica
- The Ministry of Transport's website section Projects PPP (www.telecom.gov.sk)

The Project will construct four new sections on the R1 road corridor. These four sections have a combined length of 51.6 km and are located in western and central Slovakia. The total length of the R1 corridor from Trnava (D1) to Banská Bystrica via Nitra is 161km. Figure 1 below provides details of the major roads in Slovakia. The finalised detailed maps of the route can be found in the permitting documentation, which also contains up-to-date information on the precise location of the proposed route. The current key plans are included on the Ministry of Transport's website.

The R1 is designed as a dual carriageway (2+2) and includes 10 new major junctions. Affected existing roads and tracks are diverted either over or under the proposed new route. The R1 will cross existing railways, roads, rivers, streams and drains via 53 overpasses, 12 underpasses<sup>1</sup>, 14 large culverts (between 2m and 9m wide) and numerous small culverts. The Project also includes the renovation of an existing railway tunnel in Banska Bystrica and the construction of a utility bridge over the railway. Where practicable retaining walls will also be constructed to minimise the Project's required land take and impact on the environment.

The Project has aimed to minimize impacts on the environment and people through careful selection of the route in consultation with the public and completion of impact assessments compliant with Slovakian regulations.

<sup>&</sup>lt;sup>1</sup> An overpass carries the R1 and associated slip roads over the depressions, minor roads, rivers, streams etc. An underpass is where the minor road passes over the R1.

# **2 Project Description**

The R1 Project consists of three sections of expressway between Nitra and Tekovské Nemce and the Banská Bystrica Northern Bypass. The sections are located in western and central Slovakia as indicated in Figure 1.



Figure 1 – Project location plan

# 2.1 Nitra - Selenec

This section is located in the western part of the Nitra region, in the district of Nitra. It runs between Lehota and Malanta with has an approximate length of 12.6 km and includes two elevated junctions at Lehota and Čermáň. The route passes through the valley under the Kartuša mountains, above the railway track Šurany – Nitra – Zbehy. It acts as a southern bypass to Nitra and passes to the north of the domestic and industrial zones in Horné Krškany. The Operation and Maintenance Centre Selenec (SSUR Selenec) will be located towards the eastern end of this section in line with the strategic operation and maintenance plan.



Figure 2 – Section 1 Nitra to Selenec

# 2.2 Selenec - Beladice

This R1 section is located in the districts of Nitra and Zlaté Moravce in the Nitra region. The section is a continuation of the Nitra – Selenec section and starts at a new Selenec junction near Malanta and continues eastwards for a total length of approximately 19.0 km. It passes north of Čeľadice and continues south-east passing to the south of Beladice. The section ends to the north-east of Tesárske Mlyňany. Two elevated junctions connecting to Selenec and Beladice are included in this section



Figure 3 - Section 2 Selenec to Beladice

# 2.3 Beladice – Tekovské Nemce

This R1 section located outside the built-up areas of the Nitra region in the district of Zlaté Moravce. The route is a continuation of the Selenec – Beladice section; it starts at Tesárske Mlyňany from where it heads eastwards and passes to the south of Čierne Kľačany and Olichov; it then follows the existing road (I/65). It continues north of Čaradice and connects to the existing R1 northeast of Tekovské Nemce. It has an approximate length of 14.3km. This section includes elevated junctions at Čaradice and Tekovské Nemce and a double sided Service Area at its eastern end providing rest area facilities and fuel stations.



Figure 4 – Section 3 Beladice to Tekovské Nemce

# 2.4 Banská Bystrica Northern Bypass

The Northern Bypass is within the Banská Bystrica region in the district of Banská Bystrica. The road passes to the north of Banská Bystrica and removes traffic from the centre of the town. The section starts with an elevated junction at Kostiviarska (I/59) and connects to the existing I/66 to the east of the town. The road will follow the line of the existing railway line and has an approximately length of 5.70 km. There are elevated junctions provided at Rudlová, Bánoš and Cementáreň



Figure 5 – Section 4 Banska Bystrica Northern Bypass

# **3** Rationale for the Project

The current roads within the region are below the required standards for a major regional route. The location and standard of the existing roads contributes to congestion and a high accident rate<sup>2</sup> making it one of most dangerous stretches of roads in Slovakia.

The Project benefits include:

- Decreased levels of accidents.
- Reduction of fuel consumption and traffic air emissions.
- Improvements in living conditions and amenity in towns by diverting traffic resulting in reduced levels of emissions and noise.
- Improved interconnection between the regions within the Slovak Republic.
- Improved accessibility to neighbouring regions and countries. The R1 is included in the European road corridor E 58 connecting Vienna (Austria) – Bratislava – Nitra – Zvolen – Rimavská Sobota – Rožňava – Košice – Michalovce – Užgorod (Ukraine). It is also part of the international road corridor E 571 connecting Czech Republic and Ukraine.
- Reducing regional disparities and enable the economic development of the region and specifically the Nitra region.
- Improved freight transport links.
- Strategically, the implementation of the Project will contribute to the competitiveness of Slovakia and its sustainable development.

<sup>&</sup>lt;sup>2</sup>In 2007 the District Traffic Accident for Nitra was 2.30 accidents/km/year compared to the national average of 1.38 accidents/km/year; further information can be found at: <u>www.eurorap.org</u>, <u>http://www.becep.sk/</u>, <u>http://www.ssc.sk/sk/Bezpecnost-cestnej-premavky-BECEP/Kriticke-nehodove-lokality/a-hustota.ssc</u>, <u>http://www.ssc.sk/files/documents/becep/kriticke-lokality/dalsie-info/ssc\_dopr%20nehodovost\_08.pdf</u> and <u>http://www.ssc.sk/sk/Bezpecnost-cestnej-premavky-BECEP/Kriticke-nehodove-lokality/Prehlad-opatreni-na-kritickych-nehodovych-lokalitach.ssc</u>

# **4** Summary of the Legal Context

The Project preparation started in 1993 and has since progressed through a number of approval stages in accordance with and in compliance with Slovakian national legislation. The Slovakian permitting process is responsive to public and other stakeholder concerns, the evolving design and engineering refinements of the Project and any changes to legislation. The process is designed to enable and ensure that any stakeholder issues that were not fully addressed in the EIA are taken forward to be assessed. The following section of this document summarises how the permitting process has been used to review, and if necessary mitigate, the potential environmental and social impacts of the Project.

It should be noted that the current Slovakian EIA Act (No. 24/2006 Coll.) is fully harmonised with EU legislation. The environmental impact assessment process was introduced into the Slovak legislation by the Act no. 17/ 1992 Coll. It was further improved by Act no. 127/ 1994 Coll. on assessment of environmental impacts which took into account the provisions of the EU EIA Directive (85/337). The Act 24/2006 Coll. includes the provision that where the EIA process was started prior to 1<sup>st</sup> February 2006 it will be completed in accordance with the previous Act (127/94); this provision applies to the Project.

# 4.1 **Permitting process**

The following table provides a summary of the permitting process. Cross references to where specific documentation relating to the R1 Project can be located are provided in the following sections.

	Name of the document	Description	Decision making authority	Author	Key outcome
1.	Strategic Studies	Strategic documents outlining key priorities of the road infrastructure in Slovakia	Slovak government	Ministry of Transport	Strategic document outlining the road transportation priorities and cumulative effects of the proposed transportation programmes
2.	EIA process	Environmental impact assessment of the proposed activity	Screening Decision/ Final Statement issued by the Ministry of Environment	Party wishing to perform assessed activity	Pre-condition for zoning permit. Conditions under which the assessed activity may be performed and mitigation required during the zoning or building permitting process or in the construction or post construction activities.
3.	Zoning permit (DUR)	Determines the final alignment of the road and associated works within a given area	Local municipality authority	Party intending to construct	Precondition for a building permit. Further conditions for detail design and construction
4.	Building permit (DSP)	Permit to construct with great degree of detail pertaining to construction and its management	Ministry of Transport	Party intending to construct	Outstanding DUR conditions highlighted (e.g. those relating to construction phase activities), Requirements added for any further conditions that need to be met either during further design development or during the construction and operation phases.
5.	Occupation permit	Permission to open the road for public	Ministry of Transport	Investor	All conditions of building permit have been met plus as- built safety conditions verified by police and other relevant authorities. Additional conditions for operation may be set out.

## 4.2 The EIA Process

Act no. 127/1994 Coll. (the act to which the original EIAs were prepared) sets out that the assessment of the impacts associated with the construction of transport corridors are carried out in 2 stages: the first stage being a feasibility study containing alternatives of the proposed route and the second stage being the environmental study (EIA) of the individual sections of the route. A feasibility study of the whole length of the R1 route was undertaken in 1993. This feasibility study was the first stage of the assessment of linear construction corridors as required under the EIA Act 1994 and considered alternatives options and cumulative effects. A comprehensive and extensive update to the original study was performed in 2001<sup>3</sup>.

Stage	Description	Author	Public access
1. Preliminary environmental study ("Zamer")	Basic information of proposed activity; variants; actual status of environment in affected territory; assumed affects on environment (specifically land, energy and raw material demands on the environment); evaluation of advantages and disadvantages of proposed alternatives; proposal of mitigation measures	Party proposing assessed activity	Information on "Zamer" advertised by the municipality officials in each affected municipality, the public are invited and have the right to see, review and comment
2. Screening decision	Decision whether EIA is needed or not, depending on what is to be built in a given area	Ministry of Environment	Decision is made whether further assessments are needed or not. If they are then the project moves to Stage 3. If not then the project passes to the Zoning Permit stage.
3. Scoping of assessment	Decision on scope and timeline of assessment	Ministry of Environment	Clearly defined set of measurements and assessments to be made before EIA report is conducted
4. EIA study	Detailed analysis of environmental impacts of various variants and zero variant (i.e. "do nothing" variant)	Party proposing assessed activity	Publicised at the Ministry of Environment's website and the local municipality offices; public have the right to review, submit comments either in writing or at public hearings
5. Expert review	Opinion of an independent expert on the EIA study	Ministry of Environment	An independent review of the study and its conclusions
6. Final statement (Final record/opinion)	Recommendation and rationale of preferred variant and determination of conditions under which the preferred variant may be permitted. It also contains replies to public comments.	Ministry of Environment	Publicised on the Ministry of Environment's website and the local municipality offices

The EIA process in Slovakia consists of a number of distinctive stages:

<sup>&</sup>lt;sup>3</sup> Aktualizacia predinvesticnej studie programu rozvoja dialnic – Exe summary.pdf Aktualizácia predinvestičnej štúdie programu rozvoja diaľnic v SR – full document.doc. A hard copy can be viewed at locations disclosed in section 1 of this NTS.

All relevant stages of these legal requirements have been completed for the R1 Project as outlined below.

Stage:	Nitra to Caradice (R1 Nitra to Tekovské Nemce)		Banska Bystrica Northern Bynass	
	Names of Documents			
Strategic Studies	The key strategic documents which consider the overall cumulative effects of the proposed road programme and transportation programme in Slovakia:			
	• In 1993 there was a feasibility study for the proposed Slovakian Highways, including the R1 route. This feasibility study was part of the first stage of the cumulative assessment of linear construction corridors in Slovakia.			
	<ul> <li>A comprehensive and extensive update to the original feasibility study was undertaken in 2001 (Aktualizacia predinvesticnej studie programu rozvoja dialnic – Exe summary.pdf Aktualizácia predinvestičnej štúdie programu rozvoja diaľnic v SR – full document.doc)<sup>4</sup>.</li> </ul>			
	<ul> <li>Strategic Environmental Assessment of the transportation programme in Slovakia "Operational Program Transportation for years 2007 – 2013" was prepared in December 2006<sup>5</sup>.</li> </ul>			
EIA documentation:	Nitra to Caradice (R1 Nitra to Tekovské Nemce)		Banska Bystrica Northern Bypass	
<ol> <li>Preliminary environmental study ("Zamer")</li> </ol>	1998 "Cesta I/65 Nitra to Caradice" Dopravoprojekt a.s. Bratislava 1998 04.09.1998, Ministry of the Environment (MZP SR)		Banska Bystrica – Northern Bypass. Zamer. February 1997	
2. Screening decision			12.5.1997, Ministry of Environment (MZP SR) (Cislo: 802/97-4.2)	
4. EIA study	Rychlosta Cesta R1 Nitra – Malanta:Sprava o hodnoteni na Zivotne Prostredie: Žilina June 2002, prepared by EKOPED	Cesta R1 Malanta – Caradice: Sprava o hodnoteni vplyvov cinnosti na zivotne prostredie podl'a zakona NR SR c.127/94 z.z., February 2004, prepared by EKOJET	Not required according to the screening decision	
5. Expert review	Rychlosta Cesta R1 Nitra – Malanta:POSUDOK na Spravu o hodnoteni vplyvov na zivotne prostredie, December 2002	R1 Malanta – Caradice: POSUDOK na spravu o hodnoteni vplyvov na zivotne prostredie, August 2004	Not required according to the screening decision	
6. Final Statement	R1 Nitra – Malanta: Zaverecne Stanovisko, 12.01.2005	R1 Malanta – Caradice: Zaverecne Stanovisko, 17.02.2006	Not required according to the screening decision	
Subsequent Opinions:	<ul> <li>Natura 2000 Declarations under Annex I :</li> <li>R1 Nitra zapad – Selenec : 09 Jul 2008</li> <li>Beladice – Tekovské Nemce: 14 Jul 2008</li> <li>R1 Selenec – Beladice : 14 Jul 2008</li> </ul>		10.9.2008 Ministry of Environment (MZP SR): Vec: I/66 Banska Bystrica – severny obchvat – odpoved (Ing. Luciak)	
			Natura 2000 Declarations under Annex I : Route I/66 Banska Bystrica – northern bypass July 3 2007	

<sup>&</sup>lt;sup>4</sup> A hard copy is placed at the locations disclosed in section 1 of this NTS <sup>5</sup> <u>http://eia.enviroportal.sk/detail/operacny-program-doprav</u>

# 4.3 Banska Bystrica Northern Bypass - Screening Process

A screening procedure was undertaken based on the Zamer (preliminary environmental study). This resulted in a Screening Decision by the Ministry of the Environment that no EIA was required. The Screening Decision (dated 1997) can be found on the Ministry of Transport's website this states that as no significant negative impacts were predicted for the bypass that there was no requirement for an EIA under the EIA Act (127/1994).

Subsequently in September 2008 the Ministry of Environment issued an opinion regarding Banska Bystrica Northern Bypass<sup>6</sup>; this letter:

- Confirms that the preliminary environmental study (Zamer) was sent for public comments for 6 weeks and that no negative comments from the public were received.
- Confirms that if works are done in line with the Building Act and environmental law, no negative effects are likely to occur and therefore no EIA is required.
- Confirms Zamer went to affected municipalities.
- Refers to harmonization with EU Directive and the changes in the thresholds and annexes but that the actual wording of 1994 Act not altered.

4.4 **Land Acquisition** 

The Ministry of Transport is responsible for the preparation of any acquisition of land or any demolition of structures within the Project boundaries.

Key aspects of Slovakian law that relate to land acquisition and expropriation that are of relevance to this Project include:

- Slovak Constitution Protection of ownership rights of any owner is guaranteed by the Slovak Constitution Expropriation or any other limitation in ownership rights is permitted only to necessary extent in public interest, on the basis of law and for appropriate compensation.
- Civil Code the Civil Code further stipulates and guarantees the same rights and obligations to all owners (either private subjects or public ones, such as the State or municipalities). Ownership may be also acquired by expropriation. Expropriation may only be done in accordance with the law, in public interest, for specific purpose and for appropriate compensation. Procedure of expropriation is governed by the Building Act.
- Building Act the Building Act further stipulates the aims of and conditions where expropriation can be used. Expropriation involves the restriction of rights not the total removal of the affected party's rights. If through expropriation the ownership right is only required for a section of the party's land but the owner or other authorised person would not be able to use, or would have difficulty in the use of, the remaining part of the land the expropriation is extended to include additional land if requested by the owner.

<sup>&</sup>lt;sup>6</sup> Letter dated 10.9.2008 Ministerstvo životného prostredia: Vec: I/66 Banska Bystrica – severny obchvat – odpoved (Ing. Luciak) on Ministry of Transport's website

The stages of land acquisition and expropriation process of relevance to the Project are outlined in the following table.

Stage of expropriation procedure	Actions taken		
Attempted voluntary sale-purchase	- Investor procures an expert for the land plot/real estate evaluation and other documentation needed to determine the fair price required for signing a sale- purchase contract		
	<ul> <li>Investor delivers a draft sale contract to the other party</li> </ul>		
	- Contract is negotiated and signed		
	- Bonus 20% of the evaluation price		
Involuntary expropriation procedure	<ul> <li>If an agreement on sale is not achieved or the other party does not respond the Investor will initiate expropriation procedure at the relevant office</li> </ul>		
	<ul> <li>Hearing with both parties is organized and objections are taken</li> </ul>		
	- Relevant authority decides		
	<ul> <li>Expropriation decision may be subject of appellate procedure or judicial review</li> </ul>		

Compensation is based independent expert valuation. Expert valuation represents the fair value, i.e. full replacement value to be paid to owners, including relocation and other costs incurred, so that they are no worse off as a result of the Project. In the case where land is leased for agricultural purposes, the relevant expert valuation will reflect the full replacement value of plants to be paid to lessee.

The State is seeking amicable acquisition of land. According to the new legislation effective from 1<sup>st</sup> January 2009<sup>7</sup> the owners are incentivised to voluntarily sell their land and assets by the possibility of obtaining a 20% higher price than determined by an expert valuation. The increased price may also be paid after expropriation procedure has started if an agreement is achieved.

# 4.5 **Concession Agreement**

Under the Concessionaire Agreement the Concessionaire is responsible for complying with all applicable environmental laws, permits, conditions and requirements of the environmental impact statements, zoning permits, building permits and the Public Authority's requirements (Clause 14). The Concessionaire is responsible for obtaining all necessary consents. The Concession Agreement includes mechanisms to deal with new legislation and Public Authority changes.

<sup>&</sup>lt;sup>7</sup> Legislation no. 540/2008/Coll. For more information see : <u>http://jaspi.justice.gov.sk</u>

# 5 Route selection and consideration of alternative routes

Five variants for Nitra to Caradice were considered and two variants for Banska Bystrica. The Banska Bystrica variants differ only in minor details because the route was set out by the zoning plan of the city of Banská Bystrica from 1976.

The four main criteria for route selection evaluated in the course of the EIA process were: traffic, environment/ecology, technical/economic and social/economic. More detailed subcriteria such as impacts on inhabitants, impacts on protected areas and impacts on soil were considered. Evaluation criteria for the comparison and assessment of variants are described in the EIA Chapter C section V.

The final preferred routes<sup>8</sup> were selected as:

- Nitra Malanta Variant 4 (marked green in the route selection study)
- Malanta Čaradice was a combination of two of the assessed (green and red) variants<sup>9</sup> in the route selection study
- Banska Bystrica Northern Bypass Variant A in the Zamer.

The final preferred routes were selected on the basis of the official feedback from the affected bodies and the public comments collected within the process of preparation of the EIA reports. Those outcomes are contained in the Final Statements Chapter V (Conclusions) together with recommendations for phase of preparation and construction.

There have been no changes to the preferred routes during the permitting process with one exception which was for a slight amendment to the routing near the village of Čierne Kľačany (sub-section Beladice – Tekovské Nemce). This amendment was based on the outcome of a cost analysis and the subsequent decision made by the Ministry of Transportation and was publicised during the Zoning Permit process. The Ministry of Environment confirmed that no additional environmental assessment was required as a result of this alteration.

<sup>&</sup>lt;sup>8</sup> Refer to EIAs for further details of route options

<sup>&</sup>lt;sup>9</sup> "combination of red and green variants" means that the route starts as the green variant (connection to the southern bypass of Nitra City) and then continues as the red variant.

# **6 Public Consultation**

Public consultation on the R1 route started as part of the Zoning Plans of the Nitra Regional Unit of 1998 as amended in 2004 and the Banska Bystrica City Zoning Plan of 1976. Both Zoning Plans included proposals for the R1 route corridor and were subject to public consultation as part of the overall development of the Zoning Plan in accordance with the valid legislation.

In addition, prior to the public consultation on the EIAs, the Zamers were circulated to affected municipalities who were legally required to publicise where the Zamer could be inspected by the public. The public then have 6 weeks to comment either to the municipality or directly to the Ministry of Environment.

# 6.1 **Public Consultation on EIA**

A summary of public consultation undertaken on the EIA Reports can be seen in the Final Statements. They contain the place and time of each public consultation, questions of the public and replies. The most frequent questions were in relation to property and noise mitigation measures. Minutes from those consultations are archived at the Ministry of Environment in the official files. Summary tables of the public consultation meetings are provided below:

Place	Date	Notes	Summary of Public Comments
Nitra – meeting room at Nitra municipality office	11 September 2002, 4 pm	131 people present, most of them preferred alternative V4	How many demolitions are expected, how emission increase was taken into consideration for each alternative
Pohranice	10 September 2002, 6.30 pm	66 present	Distance of the road from residential structures, noise levels and related mitigation measures
Lehota pri Nitre	10 September 2002, 4.30 pm	25 present	In case of Variant 4 animal passages between cadastral territory of Kynek and Lehota is requested
Nitrianske Hrnčiarovce	12 September 2002, 5 pm	47 present 80% prefers Variant 4	Archaeological research

# 6.1.1 Nitra – Malanta

## 6.1.2 Malanta – Čaradice

Place	Date	Notes	Summary of Public Comments
Nitra – meeting room at Nitra municipality office	21 April 2004	Number present not stated	Interconnection to Dlha and Levicka street, interference with animal crossings, planting
Volkovce	21 April 2004	Number present not stated	Move fuel station, move the route by 100 meters closer to the municipality
Čierne Kľačany	23 April 2004	Number present not stated	Variants, need for land, noise, demography
Čeľadice	28 April 2004	Number present not stated	No comments
Zlaté Moravce	30 April 2004	Number present not stated	Costs, relation of the road to construction lots, geothermal wells

Public Consultation Malanta to Čaradice (cont.)

Čaradice	30 April 2004	Number present not stated	To keep a dirt road (poľná cesta) even it is not recorded in the real estate cadastral map, to keep a natural fish pond, construct animal passages
Tesárske Mlyňany	5 May 2004	Number present not stated	Connection of the municipality to the road, ensure access to the agricultural land
Beladice	5 May 2004	Number present not stated	Connection of the motorway to the road I/65, protection of animals, toll payment
Pohranice	13 May 2004	Number present not stated	Negative effects during construction phase – transport of raw materials
Kolíňany	13 May 2004	Number present not stated	Time schedule of the project, access to the land

There are also a number of individual objections summarized in the Final Statements; where possible questions on technical issues such as noise levels, etc were answered directly at the hearings. Responses are contained in the minutes and in certain cases also in the Final Statement. A number of comments are included in the Final Statements as conditions of the Ministry of Environment. The final statements are then published so people are aware if and how their comments were processed.

# 6.2 Consultation During Permitting

As part of the Zoning Permit (DUR) and Building Permit (DSP) processes, the permit application with supportive documentation is disclosed and public are provided with the opportunity to comment and raise objections. Public objections are either accepted and dealt with via the permit or rejected. If objections are accepted they become binding for the investor or alternatively the reasons why they are not accepted must be given. Both the Zoning and Building permits are published and made publicly available.

# 6.3 Voluntary Consultations

An additional voluntary consultation was carried out in Banska Bystrica. A meeting was held in September 2006 which w publicised including advertisements on the television and in newspapers. Information on the project was presented to the 106 people who attended the meeting. Twenty eight comments or questions were raised and included issues such as noise barriers at selected sites; land compensation and property title; financial compensation; technical solution around cement factory; impacts on fishing; time schedule of construction and impacts on gardening; and compensation for trees and planting.

# 7 Existing Environment and Social Context

The area of Nitra is an important traffic intersection in western Slovakia where the international road corridor connects with the regional and local road network. The R1 route corridor between Nitra to Tekovské Nemce runs mainly through agricultural areas and also contains areas of leisure related land-use. The western end of the R1 expressway is located near the city of Nitra which is surrounded on 3 sides by predominately agricultural land with the northern side containing an area of forest which contributes an environmental feature and holiday location. Nitra is located half way between Bratislava, the Slovak capital and the city of Banska Bystrica, in the centre of Slovakia. Within parts of the city of Nitra there are current issues with air quality near the existing roads and in the industrial zone, and some existing concerns regarding the quality of the rivers and underground water resources.

Banska Bystrica city is the capital of the Banska Bystrica region located in central Slovakia, 210km from Bratislava. The city is located on the Hron River in a valley surrounded by three areas of mountains, the Low Tatras, the Veľká Fatra, and the Kremnica Mountains. Although mining was the basis for the historical development of Banska Bystrica important areas of the local economy are now related to the tourism and industrial sectors. The bypass will form the re-alignment of existing I/66 road to the northern areas of the city of Banska Bystrica. The proposed road corridor for the bypass, which runs in-part along an existing railway corridor, has been part of the planning document for the city since 1975.

Details of the existing environmental and social baseline are described in the EIA documentation (ref: EIA studies: Nitra to Malanta & Malanta to Caradice : Part C Section II ; Preliminary Environmental Study ("Zamer") Banska Bystrica Severny Obchvat: Section III).

# 8 Environmental and Social Impacts and Benefits

The proposed Project involves the construction of a dual-2 lane (2+2) expressway between Nitra and Tekovské Nemce, and a northern bypass in the city of Banska Bystrica. The Project will be constructed according to Slovakian and EU environmental requirements. A summary of the primary environmental and social impacts and benefits is provided below, mitigation measures are described in section 9 of this report.

# • Impacts on the quality of life:

The following potential impacts on the quality of life have been identified:

- Slight negative impacts during construction from disturbance and restrictions on local traffic.
- Severance effects may arise but these will be of a moderate negative nature and will be mitigated to a degree by the provision of crossings.
- Opportunities will arise for employment during construction.
- Due to the potential reduction of traffic on the existing roads and the improved standard of the Project road benefits are predicted to the quality of life around these existing roads.

# • Accident Reduction:

The proposed routes are intended to improve safety by moving traffic away from towns and villages and also by the provision of a dual carriageway which is more suited to the volume and nature of the traffic using this route. For the proposed routes the percentage reduction in accidents in the opening year is estimated to be<sup>10</sup>:

Nitra to Selenec	22%
Selenec to Beladice	33%
Beladice to Tekovské Nemce	39%
Banska Bystrica	6%

The Project also includes service areas on both sides of the carriageway in the Beladice to Tekovské Nemce section. As well as providing the opportunity for drivers to refuel their vehicles these also provide amenities to allow drivers to rest. These service areas are located in line with the Ministry of Transport's strategic plans.

## • Impacts on Public Health:

The following impacts on public health in the affected communities along the road route have been identified:

- Where traffic levels on existing roads are reduced due to the new road there may be improvements in the quality of the environment along these existing roads, including to the current noise and air quality environment.
- *Noise:* The road will pass through largely agricultural areas however the route will encroach upon a few settlements resulting in localised slight negative impact on the noise environment.
- Air Quality: Overall, the Project is expected to improve air quality in a number of cities, towns and villages along the route by diverting transit traffic away from those locations and through reduced congestion. Where the new road encroaches upon a few settlements there may be localised minor negative effects on air quality which are mitigated as described in section 9.

## • Impacts on the Raw Materials:

It is predicted that the sourcing of aggregate and other raw materials for the Project road construction will have insignificant effects on the mineral deposits which are associated with construction of the road.

## • Surface and ground water impacts:

The potential for minor negative effects on certain protected groundwater aquifer areas has been identified and precautionary measures will be taken during the construction to avoid or minimise the effects. Contaminated run-off during the

<sup>&</sup>lt;sup>10</sup> Taken from Section C of the DURs.

operation of the road may have a slight negative effect on surface and groundwater resources.

# • Impacts on land-use:

The Project will involve the construction of a new road and the widening of existing roads which will result in permanent landtake resulting in an important negative impact on land-use. The estimated temporary landtake is identified as potentially resulting in a slight negative effect on land-use due to its short-term nature.

The type and size of land required for the Project as estimated in EIA Process<sup>11</sup> are:

Type of land	Permanent	Temporary
Agricultural land	216 ha	51 ha
Forest land	9 ha	
Residential houses	1	
Non-residential structures	4	

Land acquisition will result in a negative impact of a moderately adverse nature. The approved option on the Nitra - Malanta route requires one residential property to be demolished affecting three people. No temporary physical resettlement is expected as part of this Project.

# • Impacts on flora:

The Project will result in the removal of trees and partial loss of habitats, including vegetation along watercourses, giving rise to some negative effects, but no protected or valuable habitats will be affected. The construction and operation of the new road sections may result in the potential for some contamination of flora; mitigation measures are proposed in the EIAs and permits.

## • Impacts on Fauna:

The following potential impacts have been identified on fauna:

- Cutting through migration routes
- Partial destruction and fragmentation of habitats
- Dust emissions during construction
- Changes to the noise and air quality environment
- o Contamination of soils

Measures to mitigate these impacts have been included in the Project design and negative effects are predicted to be moderate overall.

## • Natura 2000

The road corridor was selected to avoid encroachment onto any protected areas known at the time. However, the EIA studies were prepared before the full implementation of the Habitats Directive (SK Act 543/2002) and prior to the Natura 2000 list of protected areas was established by the Ministry of the Environment. Therefore, the EIAs do not specifically address the Project's impacts on the designated Natura 2000 sites. Following the definition of the Natura 2000 sites appropriate assessments of potential impacts have been undertaken in relation to the impacts on all these designated European sites. The subsequent statements from the competent Slovakian authorities confirm that no Natura 2000 sites will be directly affected. The State Nature Protection Authority has therefore determined that no specific assessment is needed of the Project's impacts on Natura 2000 sites<sup>12</sup>.

# • Impacts on the Landscape:

Visual impacts on the landscape specifically associated with the Project's earthworks and bridges are predicted to have a slight negative effect on the scenery. The road

<sup>&</sup>lt;sup>11</sup> Taken from the Nitra-Malanta EIA Report 2002, Malanta-Caradice EIA Report 2004 & Banska Bystrica Severny Obchvat Zamer 1997

<sup>&</sup>lt;sup>12</sup> Refer to Natura 2000 Declarations

will create a barrier and a new artificial element within the natural landscape. Measures to mitigate these impacts have been included in the Project design.

# • Impacts on Cultural Property

Assessments of the Project's impacts on cultural property have been conducted in accordance with relevant provisions of Slovak laws, regulations and protected area management plans. No cultural heritage or archaeological sites are likely to be directly affected by the Project. However, there are identified areas of potential archaeological finds dating back to Palaeolithic period mainly in the vicinity of the Nitra - Malanta section. These sites have been listed and were the subject of further studies during permitting process<sup>13</sup>. The EIAs stated that the overall effects upon the cultural heritage and architectural elements are predicted to be negligible.

# • Impacts on the Urban Environment:

- *Urban Areas:* Visual impacts upon the urban areas are predicted to be sufficiently mitigated by the use of screen planting.
- Agricultural: The majority of the landtake associated with the Project is agricultural land. Slight negative effects on agricultural land are identified from the permanent and temporary landtake, and due to the potential for contamination to agricultural soils to arise.
- Industrial: Large benefits are predicted to the industrial sector from the improved connection with the international highway network and the cost savings and reliability associated with a decrease in congestion. Development of industrial activity has been identified as one of the important potential benefits arising from the provision of the new road.
- *Traffic:* Improved connections and capacity delivered by the road are predicted to provide large benefits to vehicle travellers. Slight adverse effects on vehicle travellers are predicted during construction but these will be of a short term nature.
- *Tourism:* The Project is identified as having the potential to support the development of the tourism sector.
- *Forests:* The Project will result in a small amount of landtake from forestry areas predicted to give rise to a slight negative effect.

## • Unexploded Ordnance:

During the initial stages of the Project the location of the Project is assessed by the relevant authority for the potential for ordnance to be discovered on site. For the proposed route it was determined that ordnance was not a risk.

## • Community Impacts:

The SIA identified that the Project could potentially increase the migration of people to cities, particularly young people, resulting in an ageing population in rural communities. Retail premises such as petrol stations, restaurants and hotels may also suffer a loss of income resulting in job losses as the road will decrease the potential flow of customers. Other impacts include: concerns relating to construction nuisance, fragmentation, impacts on a local chapel and to farmers and hunters, local roads ruined during construction and affect access to recreational areas.

However, there is a high expectation that road traffic accidents and highway congestion will significantly decrease and traffic policing will improve vehicle safety at transit communications which will be of significant benefit.

<sup>&</sup>lt;sup>13</sup> Refer to attachments to permitting documentation – Archaeological studies (Archeologicky prieskum attached to each DSP and DUR permit)

# **9** Mitigation Measures

It is considered that the predicted negative impacts can be sufficiently mitigated by various measures, which are set out within the Section IV of the EIAs and further detailed in the subsequent permit documentation and Concession Agreement. The key mitigation measures are summarised below:

## • Impacts on the quality of life:

- Construction Traffic: The building permit stipulates certain conditions in order to avoid negative impacts on neighbouring property during the construction phase. These include the requirements to ensure that the haul routes are kept clean of construction related debris, to agree access routes with local municipalities to limit interference with other users and owners etc., to agree the location and time of temporary road closures, to clearly sign all diversions and the reconstruct roads designated roads that may be damaged by the construction traffic but which are needed to access the site.
- Severance effects:
  - Existing routes are in most cases realigned where they are severed by the Project.
  - Where land is severed to the extent that it becomes unworkable the land owner has the option to require the investor to purchase the complete parcel.

# • Accident Reduction:

- The likelihood of road accidents occurring are minimised initially by designing and approval of the works to specific Slovak standards and also by the safety inspections that are required to be undertaken by the relevant authorities, including the police, prior to a preliminary road opening certificate being granted.
- The concessionaire is incentivised to minimise accidents on the road by specific measures included within the payment mechanism.

## • Impacts on Public Health:

- Noise: noise barriers will need to be provided in specific areas, which have been identified in the EIA and permit documentation, to ensure noise levels will be within allowable limits. These are included in the DSP. Tables of the noise barriers required and which municipalities will be affected are contained within the EIA and Permit requirements. Post construction noise assessment will be carried out to determine the effectiveness of the barriers.
- Air Quality: Air pollution due to vehicles will be mitigated by tree planting within the road corridor.

## • Impacts on the Raw Materials:

- All deposits and quarries supplying the Project will be required to be managed in compliance with Slovakian and EU environmental legislation so as to mitigate their environmental impacts.
- Road material sourcing will be mitigated through strict compliance with Slovakian environmental legislation and contractual conditions relating to the opening of borrow pits and quarries.

# • Surface and ground water impacts:

- Impacts on the surface and ground water regime will be mitigated by the drainage systems implementing pollution control measures (for example oil separators, interceptors, filtration etc).
- Emergency procedures for dealing with accidental spillage from vehicles will form part of the Concessionaire's environmental management plan.

# • Impacts on land-use:

- The impact on land use is mitigated by the route selection procedure and by the design, eg the use of retaining walls.
- Impacts on agricultural soils and land will be minimised by limiting the use of agricultural land outside of the works area, measures to reduce the potential for contamination of soil due to contaminated run-off, and the requirement for temporary plant and waste to be stored only on land of low quality soils. Where applicable all deposit areas will be re-cultivated upon completion of the construction works.

# • Impacts on flora:

- Compensation and revitalisation of planting to limit effects of habitat loss using native vegetation, for example along watercourses and on embankments. The relevant nature protection authorities will be consulted on the selection of the species.
- Trees in close proximity to the construction site will be protected from damage to their roots and trunk by control of construction and construction traffic, and fencing or other forms of barriers.
- Loss of flora is further mitigated by either compensation planting or by a compensation payment whereby monies are paid to the relevant authority to carry out planting or revitalisation.

# • Impacts on Fauna:

• Impacts on fauna will be mitigated through the provision of animal passages, and through appropriately designed bridges, underpasses and culverts.

# • Natura 2000

 $\circ$  No impact.

# • Impacts on the Landscape:

- $\circ~$  Planting is a proposed as a mitigation measure to assist in the integration of the road into the landscape.
- Design to be, where applicable, sympathetic to its environment.

## • Impacts on Cultural Property

 To protect cultural property from adverse impacts during the construction period a "chance find procedure" will be followed to ensure that provisions are in place for managing any cultural objects that are encountered. Procedures, which are required to be approved prior to the commencement of the construction phase, shall include fencing off the area of finds to avoid further disturbance and an assessment by a designated and qualified specialist to identify necessary protective actions consistent with Slovak legislation.

## • Impacts on the Urban Environment:

 $\circ$  Visual impacts upon the urban areas are mitigated by the use of screen planting.

## • Unexploded Ordnance:

 Any ordnance uncovered during the works will be dealt with by the relevant authority. Standard provisions included within the concession agreement set out the responsibilities should the unlikely event of ordnance being uncovered arise.

## • Community Impacts:

- Construction Nuisance:
  - The impact caused by the construction works is mitigated by the implementation of agreed transport management plans. These include plans for transporting the construction materials and will be prepared with the co-operation of the local authority. The allowed routes and

speed will be limited and temporary traffic signs will be placed, if necessary the detours will be recommended.

- Local roads used for the construction traffic will be clean and maintain regularly, and reinstated into the original condition / state when relevant. The design attempts to balance the amount of fill required in the embankments with the excavated material won on site to minimise the amount of material that will need to be imported or exported.
- The locations of site compounds form part of the permitting process; any new compounds would require the permission of the relevant authorities

## In addition:

- A Construction Management Plan prepared by the Concessionaire will include details regarding the environmental protection.
- A Waste Management Plan will be prepared by the Concessionaire.
- A plan to deal with an emergency situation that can affect the environment will be prepared by the Contractor / Concessionaire and approved by the Slovak Environmental Inspection and Environmental Inspectorate Bratislava, Department for Water Protection Inspection.
- The compensation arrangements for landtake set out under Slovakian law are applicable to the Project. A significant percentage of the land has been acquired already on a voluntary basis to minimise the need for compulsory expropriation. Potential impacts to properties were minimised by aligning the road where possible outside of built up areas.

The SIA also includes the following mitigation measures:

- Development of communication plans to provide timely information to local communities and drivers.
- Restoration of local roads impacted by construction traffic.
- Compensation to economically displaced people.
- Maintaining high standards of housekeeping and implement nuisance reduction measures i.e. dust suppression, restricted construction works during the holiday season.
- Provide additional training and resources to emergency services to enable them to deal with serious road traffic accidents.

## Additional Environmental Studies During Permitting:

In order to assist in the discharge of the requirements of the EIA and to provide details of any further mitigation that needs to be incorporated into the permits and design requirements additional studies have been undertaken as summarised below:

- $\circ \quad \text{Geological studies}$
- $\circ$  Noise studies
- Air quality studies
- $\circ \quad \text{Archaeological studies}$
- Agricultural Soil studies
- Seismic studies
- Economic Study

Further details of the existing environmental and social impacts and benefits of the Project, and proposed mitigation measures are contained in the EIA documentation. A comprehensive mitigation plan will be developed and implemented by the Concessionaire as part of their Environmental Management Plan. The mitigation measures will be updated and amended based on the results from additional studies and Project monitoring results.

# **10** Monitoring

In the Final EIA Statements the conditions for monitoring are detailed; the DUR and DSP documentation also contain detailed monitoring requirements. The conditions include monitoring of the impact of the Project on selected areas of the environment in defined areas of the route during the different stages of preparation, development and operation of the road.

Monitoring should especially focus on:

- monitoring influences on geology stability and erosion of slopes, object deformation;
- geotechnical monitoring of rehabilitation measures,
- monitoring of air quality in the locations identified in the EIA and permits;
- monitoring of influences on surface and underground waters;
- monitoring of waste waters quality;
- monitoring of noise conditions especially in problematic locations from the point of influencing the population by motorway in course of construction and motorway operation;
- monitoring of seismic effects on the neighbouring buildings especially in course of construction;
- preparation of inventory of building facts near the construction site before motorway construction;
- monitoring of oil separators and other parts of the highway runoff drainage system; and
- monitoring of accidents.

Compliance monitoring reports will be required from the Concessionaire both during and after the construction phase; these will be submitted to the relevant inspection authority. If monitoring results establish that the actual impacts of the assessed activity are worse than stated in the assessment report, then Concessionaire are obliged to implement remedial measures to establish compliance with the impacts predicted in the original assessment report. Post construction monitoring, such as water quality and noise assessments, continue after opening of the road to the public.

# **11 Project Update**

The building permits for all sections of the R1 have been issued and are valid and effective.

The majority of the land for the R1 has already been voluntarily acquired Nitra – Selenec (82%), Selenec – Beladice (87%), Beladice – Tekovské Nemce (79%) and Banska Bystrica (90%) The percentage includes the domestic property that was required to be demolished.

The contract for the works should be signed in early spring with some enabling works starting immediately after award. The start of the main construction activities will commence once the detailed design is completed and approved. It is anticipated that the Beladice - Tekovské Nemce section will open in summer 2010; the Nitra – Selenec and Selenec – Beladice sections in spring 2011 and the Banská Bystrica - Northern Bypass section completed in spring 2012.

# 12 Contacts

Further information on the Project can be found at:

Ministry of Transport's website <u>www.telecom.gov.sk</u> (PPP Projects section)

Contact person: Ing. Ľuboslav Gajdoš, PhD. luboslav.gajdos@telecom.gov.sk

#### Národná diaľničná spoločnosť, a. s.

Communication Center "Central" located in Žiar nad Hronom stred@ndsas.sk Š. Moysesa 68 965 01 Žiar nad Hronom Contact person: Ing. Juraj Kovalinka 0903 468 829, juraj.kovalinka@ndsas.sk

Regional scope of Communication center "Central" covers regions of Nitra and Banská Bystrica

Banska Bystrica (SSC Office) Slovenská správa ciest Investičná výstavba a správa ciest Skuteckého 32 974 23 Banská Bystrica

Contact person: Ing. Ladislav Štulajter (vladislav.stulajter@ssc.sk)

For any queries relating to land acquisition please contact:

For Banska Bystrica section: <u>vladislav.stulajter@ssc.sk</u> For all other sections: <u>juraj.kovalinka@ndsas.sk</u>