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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS

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Specific File

Construction of a Motorway in the Gorge of Kresna
- Corridor No. 4 of transport: EU PHARE Project –
Connection Bulgaria - Greece

(Motorway E79 : Sofia-Kulata)

Report by the NGOs

Secretariat Memorandum
Prepared by
The Directorate of Culture and Cultural and Natural Heritage

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Construction of the Struma Motorway (Motorway E79: Sofia-Kulata) endangers the Kresna Gorge, future Emerald and Natura 2000 site.

NGO update on the case following the May 30/June 1 visit to Bulgaria by the Mission of the Convention.

1. Background information.

The Kresna gorge is located along the Struma river in the south-western part of Bulgaria. It is classified a CORINE Biotopes site (Site Code F00002500) of outstanding biodiversity and landscape value and is foreseen to be included in the Emerald and NATURA 2000 networks. The CORINE Biotopes programme determines the gorge seventh in terms of conservation importance in Bulgaria, directly following the country's six large national and nature parks. The gorge is also classified an Important Bird Area (code number BGN03) according to the criteria of Bird Life International. The "Tissata" Reserve (CORINE sub-site F00002501), part of the gorge, is a site of global conservation importance representative for the Mediterranean zone. The gorge is situated along the Via Aristotelis European bird migration route. Endemic plant communities and preserved natural habitats predominate. Currently, the road and railway passing through the gorge divide the reserve and the whole Kresna CORINE Site in two parts. (For more information about the biodiversity of the Kresna Gorge, please refer to Attachment 2).

The government of Bulgaria intends to construct the Struma motorway as part of European Transport Corridor No. 4 connecting Dresden, Budapest, Sofia and Istanbul, with a branch from Sofia to Thessalonica. Financial memoranda 98 and 99 of the PHARE Cross Border Co-operation (CBC) Programme provided financing for the project "E-79 Detailed design of motorway Sofia-Kulata". The Ministry of Regional Development and Public Works (MRDPW) and the Road Executive Agency (REA) are the authorities responsible for the project implementation.

At the time of the Convention mission to Bulgaria (May 30/June1, 2002) three different road alignments were proposed for the Kresna gorge area. All routes would run through the whole length of the gorge causing irreversible affect on its' natural habitats. In 2000, the Italian company SPEA, which is the project designer, presented two alternatives bypassing the gorge. Unfortunately these were poorly developed and never considered by the Road Executive Agency (REA). (For more detailed information about the history of the project, please refer to Attachment 1).

2. Negative implications after the mission of the Convention of Bern.

2.1. The Ministry of Environment and Water (MEW) delays decision on the EIA report for the Struma motorway prepared under the PHARE project.

This EIA report was submitted to the MEW at the end of 2001, and public hearings were held in the spring of 2002 (see Attachment 1). The EIA report is of obvious poor quality and not objective in its assessments. Bulgarian legislation gives the MEW the power to return a poor report and ask for improvement, but the MEW – without providing justification – is putting off its decision and so de facto protecting those responsible for preparing such a low-quality document.

2.2. Decision of the High Expert Council of the Ministry of Regional Development and Public Works (MRDPW) (please see attached translation of the MRDPW decision).

On July 23, 2002 the **MRDPW** conducted a regular session of its' High Expert Council. The session's aim was to **choose** a final road alignment for detailed design, a decision that effectively disregarded MEW opinion and the EIA procedure currently active. Bulgarian nature protection legislation gives the Minister of the Environment primary decision making power over every investment project.

The High Expert Council was presented three routes for consideration, all passing through the Kresna gorge. Two of the alternatives are designed by the SPEA Italian company under the feasibility study funded by Phare CBC. The third variant is a new route developed by a team of Bulgarian engineers a month before the High Expert Council meeting. During its session, the High Expert Council did not consider any alternatives outside of the potential Emerald and Natura 2000 area

of the Kresna Gorge, as required by the Bulgarian Ministry of Environment and Water and the EU provisions.

The High Expert Council decided that the new third route option would be subject to detailed motorway design. The chosen route passes trough the gorge via low viaducts and small tunnels, causing similar detrimental impact as the original viaduct/tunnel version. In fact the new route would affect TWO potential Natura 2000 sites (Kresna Gorge and Kojuha, a small site located 30 kilometres southward) and around 60 km of the motorway would run IN the riverbed itself, destroying habitats of vital importance for the Via Aristotelis migration route.

No civil organisations were granted access to the MRDPW High expert council session. A representative of the EU Delegation in Sofia attended the session. From newspaper reports it has now become clear that from the beginning of November 2002, REA is looking for a new expert team to conduct a new EIA report considering the alternative approved by the MRDPW. It is not clear if other alternative routes will be considered in the new EIA report.

The MRDPW's actions are in flagrant disregard of the EU acquis and have several implications:

- the EU's Phare CBC funds for the SPEA feasibility study have been effectively wasted;
- a new formal EIA procedure will be conducted without any real reason, because the decision on the alternative to be developed has already been made by a structure more powerful than the MEW:
- disregard of both EU and Bulgarian EIA legislation, and of the biodiversity conservation provisions of the Bern convention, and the Habitats and Birds Directives;
- the new route poses worse implications for nature than the previous proposals, affecting two future Natura 2000 sites and with a heavy impact on the river valley and the Via Aristotelis bird migration route.

3. Preliminary design of motorway alternatives bypassing the Kresna Gorge, conducted by Bulgarian NGOs.

The main problem recognised by NGOs was the lack of any will on part of the road authorities to develop real motorway alternatives passing outside of Kresna gorge. In July 2002, the NGO group started a joint project to come up with a preliminary design for such an alternative. A Bulgarian engineer company was contracted and after several months of continuous and intensive consultations between engineers and biologists, two alternative variants were successfully designed (see attached brochure). The NGO proposal would require fewer viaducts and tunnels than the alternatives designed by SPEA outside the gorge. From the point of view of biodiversity conservation, they bring significant advantages:

- The main variant completely bypasses the Kresna CORINE Site, while the second one passes through marginal parts of the site. None of the variants affects the site's core area;
- None of the variants affects the priority habitats Oriental plane forest and Greek juniper forests, or the main areas of distribution of valuable species of fish, amphibians, snakes, birds and bats;
- Only partially affected will be habitats of both tortoise species and the Aesculapian snake;
- Both alternatives cross lateral valleys by means of tunnels and viaducts, thus preserving migration routes along these valleys; the migration route through the main valley of the Struma river would not be affected at all;
- The viaducts and tunnels support the migration of large mammals;
- Improved possibilities for the construction of facilities to enable migration of small animals along those stretches where the motorway will run at grade.

On November 12, 2002 NGOs presented the motorway alternatives bypassing the Kresna gorge to the Bulgarian Government. The governmental representatives did not take any official position and said would consider the alternative later.

4. Requisite future steps.

- 4.1. The case for constructing an 'environmentally friendly' alternative outside the Kresna Gorge should be taken into consideration. The road authorities should take environmental factors into account when planing the Struma motorway.
- 4.2. A comprehensive EIA report should be prepared, preferably with the consultation of independent international consultants. The MEW should make an independent decision on the EIA procedure not under pressure from other institutions.
- 4.3. Kresna Gorge should be included among priority sites in Bulgaria's application to the Emerald Network.
- 4.4. Bulgaria should designate a protected area on the territory of the Kresna CORINE Site.
- 4.5. The MEW should prepare a management plan for the protected area with broad participation by local people and NGOs.

Attachment 1

NGO's Save Kresna Gorge campaign

Article 1 Short history of the Kresna case Article 2 Procedure and administrative threats to Kresna Gorge

Article 1. Short history of the Kresna case

1. Designation of the "Tissata" reserve in the southern part of the Kresna Gorge.

"Tissata" reserve is situated in the southern part of Kresna gorge. The reserve was designated in 1949. According to the existing Nature Protection Act from 1967, the territory of the "Tissata" was expanded and amended in 1997 (act No 440 from 2/12/1977 by the Nature Conservation Committee) in 1985 (act No 130 form 22/02/1985 by the Nature Conservation Committee) and in 1991 (act No 844 from 31/11/1991 by MEW). The "Tissata" Reserve involves a territory of 574.5 hectares and consists of two detached sites, situated on the two slopes of Kresna gorge. The buffer zone is 625 hectares and covers the Struma riverbed, connecting the two parts of the Reserve. The present road and the railway constructed before 1949 pass through the buffer zone. THE CONSTRUCTION OF THE MOTORWAY THROUGH THE KRESNA GORGE, EVEN AS A WIDENING OF THE EXISTING ROAD OR AS A NEW MOTORWAY, WOULD INEVITABLY AFFECT THE TERRITORY OF THE "TISSATA" RESERVE. The studies (and moreover the EIA report), prepared by the Road Executive Agency (REA) and the Italian company SPEA Engegneria Europea, undermine the existence of the Reserve and do not consider the buffer zone. The riverbed and the buffer zone host habitats with a high number of species of Community importance (snakes, frogs and bats), and also habitat types of Community interest (Oriental plane woods).

2. Ratification of the Bern convention.

On July 13, 1991 Bulgaria ratified the Convention on the European Wildlife and Natural Habitats (Bern Convention) according to art. 5 par. 4 of the Bulgarian Constitution. The Bern Convention is part of the Bulgarian legislation and has supremacy over the Internal Legislative Acts even in case of contradictions. The Kresna gorge preserves a significant wealth of natural habitats, flora and fauna that are under priority protection according to Art. 4 of the Convention. Habitats of the described type cover most of the Kresna gorge territory. A motorway construction in the gorge would directly destroy a significant part of the European natural heritage. The EIA reports presented by REA and SPEA do not consider the provisions of the Bern Convention.

3. Kresna Gorge in the Bulgarian Strategy for Biodiversity Protection.

The Bulgarian Strategy for Biodiversity Protection from November 1993 classified the Kresna gorge territory as one of the most important territories for the protection of rare plant habitats, invertebrates, amphibians, reptiles and bats. For some groups as day and night butterflies, reptiles, bats and the Grecian Juniper woods the Kresna gorge is of highest conservation importance. There is a clear need for a larger protected area, covering the whole Kresna gorge. The EIA reports do not take into account the Biodiversity Strategy.

4. Designation of Kresna as a CORINE Biotopes Site

Kresna gorge was designated in 1996 as a CORINE Biotopes site on the basis of zoological, botanical and habitat criteria (Spiridonov, G., Meshinev, T., Iankov, P.&Peev, D.:1996. Kresna Site identification. Report, 40-45). It is on the seventh place of importance out the 141 CORINE sites in Bulgaria. The Bulgarian government considers that the 141 CORINE Sites will constitute the basis of the national ecological network, and of the NATURA 2000 and EMERALD European Ecological Networks on Bulgarian territory. The EIA reports prepared by REA do not consider the Kresna CORINE Site. The SPEA EIA report authors (last EIA report) question the designation of the Kresna gorge without presenting arguments, contradicting in this way the statements of the Bulgarian Academy of Science and the MEW.

5. Designation of the Tissata reserve as an Important Bird Area.

The "Tissata" Reserve (the strict reserve and its buffer zone) are classified an Important Birds Area according to the criteria of Birdlife International, representative for the Mediterranean region (Kostadinova, I.(ed.): 1997. Important Bird Areas in Bulgaria. Bulgarian Society for the protection of Birds, Conservation Series, Book 1. Sponsored by Royal Society for the Protection of Birds according to BirdLife International Programme for Important Bird Areas). All EIA reports conducted so far do not take this fact into account.

6. Start of the preliminary design of the Struma motorway by the road authorities

The Road Executive Agency (REA) (with former name General Road Administration (GRA)), contracted in 1997 two Bulgarian designing companies to make a preliminary design of the motorway. The environmental NGOs unofficially discovered that the terms of references of the companies do not pose any requirements for thorough feasibility studies of alternatives. The design had to follow the road passing close to the Struma river and in the region of Kresna through the Kresna gorge. The designing companies were not informed about the outstanding biodiversity value and the existing protected areas in the region. Consultations with the Ministry of Environment and Waters, NGOs and environmental experts had not been conducted before the start of the design. Despite the demands of NGOs for developing of an alternative roadbed outside the Kresna gorge CORINE Site, the feasibility study of the two alternatives inside the gorge was completed and the motorway construction through the gorge and the "Tissata" buffer zone was approved by GRA end of August 1998. In the period 1998 - January 1999 through several meetings and with number of letters NGOs informed the Ministry of Regional Development and Public Works (MRDPW), the Ministry of Environment and Water (MEW), the Delegation of EC in Sofia, the PHARE programme, the EIB, as well as responsible DGs in EC, about the case and the ecological significance of the Kresna gorge. A detailed description of conservation value of the gorge was sent to all the contacted institutions.

Four Preliminary EIA Reports for the different parts, forming the Struma motorway, were submitted to the MEW by the REA with letter dated January 14, 1999. The EIA Reports prepared by REA were rejected by the MEW with a letter dated February 12, 1999. The requirements posed by MEW were that an EIA is conducted for the whole route of the highway, that the documentation is brought in line with the legislation in force and that it is accompanied by maps.

Mrs. Maneva, Minister of Environment and Water, stated during a meeting conducted on 23 February 1999, that the Ministry had not been questioned for the nature protection areas along the motorway. The NGOs demanded active position from the MEW. With a letter dated 3 March 1999, signed by the Minister of Environment and Waters, REA and MRDPW were informed that MEW "draws the attention" that alternative routes should be obligatory developed "outside the Kresna gorge" that should be "assessed on equal worth" in the EIA study.

A Preliminary EIA Report for the whole route of the highway was presented to the MEW with a letter of the REA dated April 21, 1999. Again, no alternatives were considered. The Preliminary EIA Report was rejected by the MEW with letter dated May 18, 1999. In a letter to the 21st meeting of the Bern Convention Standing Committee MEW states: "The Report was returned with Letter No 26-00-3775/18.05.1999 of the Ministry for the following reasons: the Report failed to comply with the conditions, set by the first letter of the Ministry; it did not consider equal alternative scenarios of the route".

7. Summary of implications until mid 1999:

- All interested parties the Roads Executive Agency, the Ministry of Regional Development and Public Works, the PHARE Programme, EIB, the European Commission through its' Delegation to Sofia were informed in details about the conservation value of the Kresna Gorge, about its'existing protected areas and the future positions as a site of the European Environmental Networks.
- There was a clear requirement posed by the Ministry of Environment and Water on March 3rd 1999 that alternative routes bypassing the Kresna Gorge must be thoroughly developed and

equally assessed. This requirement is in respect of the present protected territories in the Kresna gorge and of the requirements of the Bern convention and the Birds and Habitats EU Directives.

■ In the period 1997 – 18th May 1999 a preliminary design of motorway routes, was carried out and an EIA was conducted both funded by the Bulgarian state and Bulgarian companies. The EIA report was rejected by the Ministry of Environment and Water because of lack of alternatives and the project was returned for a second examination. In addition, the early participation of all interested parties was missing during the study and design, and the environmental legislation was not respected in the process of the project development.

8. Starting EU accession negotiations

In 1999 Bulgaria started negotiations for European Union accession. The natural wealth of the Kresna gorge is subject of priority protection according to the Habitats and Birds Directives. Both Directives are not taken into consideration in the EIA reports.

9. Involvement of European funds in the designing process

With a letter dated May 10th 2000, the Roads Executive Agency provided following information to three Bulgarian NGOs (Centre for Environmental information and education, BALKANI Wildlife Society and ECO-CLUB 2000): "within the frameworks of the Financial Memorandum '98 and '99 of the PHARE programme preliminary funding for investigations, drafts and auction documents for transit motorway construction along the existing E-79 is included".

- On September 1st 1999 (4 months after the preliminary design and the EIA report were rejected by the MEW) an international tender for the execution of project "?-79, Sofia-Kulata: Preliminary investigations and designing" was conducted.
- The Italian Company SPEA Ingegneria Europea was contracted for the feasibility study and design on March 9th 2000, after approval by the European Commission in Brussels.
- No definite information was available whether the requirement of MEW from March 3rd 1999 for the development of alternatives outside the Kresna gorge was included in the assignment of the project executing agency. There was no clarity about who approved a contract at the European Commission in Brussels, in which the design of alternatives was not regarded.

10. On May 19th 2000 the Municipal Council of the town of Kresna came up with a decision to endorse the designation of Kresna Nature Park and its inclusion in the EMERALD Network

11. Common agreement between all institutions that alternatives outside the Kresna Gorge should be designed

Two meetings were held on November 13 and 17, 2000 with representatives of NGOs, REA, SPEA, the EC Delegation to Bulgaria and the PHARE Programme. The representative of PHARE (Mrs. Vesselina Lyubenova, Head of PHARE and ISPA office, MRDPW) stated that the Terms of Reference of the SPEA company should be changed to include design of the alternatives outside the Kresna gorge CORINE site. Until the end of 2002 there is no evidence that this has happened.

12. Three days for the design of "alternatives" outside the Kresna Gorge

Three days later, on November 20, 2000 SPEA came up with two "alternative" roadbeds drawn on a map. They were presented to NGOs by Mr. Rizzo in an informal meeting held in the office of SPEA Ingegneria Europea. He informed that SPEA paid a visit to the region of the Kresna gorge during the weekend and can propose these two alternatives. Later the map, accompanied by two page text and vertical cuts of the two alternatives were the only information for the alternatives included in the EIA report prepared by SPEA.

13. First reactions of the EU commission

On 21 November 2000 a reply to the NGO appeal from September 11th 2000 was received from from Mr. E. Landaburu, DG Enlargement. It was stated that "DG Enlargement is responsible for the Phare programme, . . ."; "The Commission will closely follow, especially through its Delegation in Sofia, the planning of the Struma motorway and preparation of the environment impact

assessment..."; "in order, to ensure that the less damaging route for the environment is used, and the alternative solutions have been considered."

14. The delegates of the Annual NGO conference in 2000 fully supported the SAVE Kresna Gorge Campaign

At the Annual conference of the Bulgarian environmental NGOs on December 18-20, 2000 participants from 180 organisations supported an appeal to the Bulgarian government for the designation of a protected area on the whole Kresna gorge CORINE Site and its inclusion in the NATURA 2000 and EMERALD European networks.

15. MEW rejected the first EIA report prepared by SPEA

A Preliminary EIA Report for the Struma motorway prepared by the SPEA company was presented to the MEW with letter of the REA dated January 11, 2001. The only technical information concerning the "alternatives designed for three days" outside the gorge were two pages of description, a map and two vertical cuts. They were included as an official attachment to the EIA report under the PHARE logo. MEW rejected the report with a letter dated January 26, 2001 for the reason not to comply with the legislation in force and because of vague expert conclusions.

16. Proposal for the designation of a protected area covering the Kresna CORINE Site

On January 16, 2001 a group of environmental NGOs submitted to MEW a proposal for the designating of the whole Kresna CORINE Site as a protected area according to the Bulgarian nature protection legislation. In a letter dated May 03, 2001 the MEW considered the proposal as relevant and delegated the preparation of the documentation for the designation to the BALKANI Wildlife Society.

18. MEW required road authorities to design realistic alternatives outside the gorge

With a letter to REA dated May 21, 2001 the MEW informed the public about the officially started procedure for the designating of the Kresna gorge as a protected area and insisted that "a detailed study of the existing possibilities for alternatives of the Struma motorway roadbed outside the Kresna gorge should be developed".

19. REA stated that the construction of a motorway through the Kresna gorge would be enforced politically

On July 5, 2001 at a meeting between NGOs, REA and SPEA, the Executive Director of REA, Mr. Rodopmanov, stated that the alternatives outside the Kresna CORINE Site will not be further elaborated. The EIA report states that "a non-written task to design the twofold widening of the road only for the Kresna gorge part is delegated to SPEA" (6). Mr. Rodopmanov also declared that the twofold widening of the road inside the gorge is considered as the most appropriate solution for the environmental problems (at this time a new EIA report was still not prepared) and that if necessary this decision would be enforced politically.

20. Official statement of Mrs. Margot Wallstrom, European Commissioner

On September 13th, 2001 a reply to a letter from Bulgarian NGOs from July 19th, 2001 was received from Margot Wallstrom, European Commissioner. It is stated that "Following the evaluation of the first version of the EIA for the section of the Sofia-Kulata motorway that includes the area of the Kresna gorge, the Commission has asked the Bulgarian authorities to revise the document in order to align it with the requirements of the EIA directives. In particular, the Commission has specifically indicated that alternative solutions to the one that passes through the Kresna gorge, whether as a new motorway or as an extension of the present road, have to be thoroughly and seriosly studied. In particular, this is necessary in order to comply with the requirements of the Habitat and Birds directives, which apply when an EIA for environmentally sensitive areas has to be completed."

21. NGOs submitted the documentation for the designation of the Kresna gorge protected area.

The complete documentation for designation of the Kresna gorge as a protected area in line with the Bulgarian Protected Area Law (PAL), supported by 10 environmental NGOs, was submitted to the MEW on 22 October 2001.

22. Start of EIA procedure by MEW

On 11 December, 2001 in contradiction with the statement before the Bern Convention Standing Committee and without taking into account the contradiction with the running procedure for the designation of the Kresna Protected Area, the MEW opened the Environmental Impact Assessment (EIA) procedure for the project "Struma Motorway". The EIA report showed that no realistic alternatives outside the gorge are developed into details, but nevertheless they were included in the EIA report as official alternatives. During a meeting in the SPEA office, NGO representatives learned that the EIA report is based only on the two pages of text, a map and the two vertical cuts that were submitted a year ago.

23. Meeting of the Commission for the designation of the Kresna Gorge protected area

On February 20th, 2002 MEW appointed a Commission to revise the proposal for the designation of the Kresna gorge as a protected area. A written statement of the Road Executive Agency was submitted to the Commission, in which it was stated that "The motorway design area has been studied since 1990. Analyses have been done also in the corridor suggested by the non-governmental organisations Only the international consultants company SPEA has designed additional 317 km for the amount of 2 750 000 Euro, where the two main motorway variants through the gorge are at the amount of 494 00 Euro. For the three additional alternative options (2 of which are insisted upon by the non-governmental organisations) 394 000 more Euro have been spent. The total amount spent on investigations of different options for the gorge section conducted by SPEA is 880 000 Euro. That comprises 32% of the total costs of the road investigation."

NGOs were not informed in details about the kind of contract and origin of the sums for funding, although this information was requested for. SPEA responded that "The requested information on the signed contracts for preliminary investigation and design of the "Struma" Motorway, together with the attachments and the inquiries, and the documents for execution of the contract (reports, investigations and projects) are not to be handled (letter No 227 from 28/02.2001).

24. Poor public hearings on the EIA report

Several NGO representatives participated in 4 of the 5 EIA public hearings for the Struma motorway project, which took place in the period March 5th-7th, 2001. At these hearings the "alternatives developed for three days" were presented as the official ones. Representatives of the Road Executive Agency and SPEA declared that the construction of alternatives outside the gorge is unfeasible and expensive and presented incorrect information about the length of the alternative routes. In the same time the representative of the Road Executive Agency Mr. Todorov said that from technical point of view everything is possible to be built and the construction depends on the funding.

The public hearings were characterised by very poor involvement and participation of the local communities.

There was no official information whether the EIA report was sent officially to the European Commission for review and screening.

25. MEW procrastinated decision on the EIA report for the Struma motorway.

26. A Mission of the Bern Convention visited Bulgaria in the period May 30th – June 1^{st,} 2002.

Article 2 Procedure and administrative threats to Kresna Gorge

After five years from the beginning of the NGO's Save Kresna Gorge campaign there are no indications that acceptable solutions for the construction of a motorway meeting both technical and environmental needs will be found. The main reason is the infrastructure policy of the Ministry of Regional Development and Public Works and the Road Executive Agency:

- No Strategic assessment has been conducted for the transport corridor;
- The environmental considerations are not taken into account in the process of infrastructure planning and design;

- Environmental experts are not involved in the early stages of infrastructure planning and decision making;
- The Environmental Impact Assessment (EIA) procedure is carried out in a later stage when the processes of alternatives design and preliminary design are already completed;
- There are not enough interactions and concerted work between the road authorities and the Ministry of Environment and Water (MEW), especially before the start of the EIA procedure;
- The EIA reports concerning the motorway design are poor and tendentious, especially concerning the chapters related to the impact on the biodiversity;
- The MEW does not efficiently control the quality of the EIA reports;
- In the process of the motorway design the Bulgarian road authorities (MRDPW and REA) did not respect the principles of democratic decision-making and public involvement there were no efficient public participation in the decision-makings and access to public information.

Short Description of the "Kresna gorge" Natural Area and the threats related to the construction of Trans - European Transport Corridor No 4.

1. Description of the area

The Kresna Gorge is a rocky gorge located along the Struma river in south-western Bulgaria. Mediterranean and sub-Mediterranean vegetation, riparian forests and the river stream characterise the area. The gorge hosts a remarkable biodiversity: 39 mammal species; 17 bat species; 135 species of nesting birds; 156 migrant bird species; 99 wintering bird species; 21 reptile species; 10 amphibian species; 13 fish species; 822 moth species; 120 butterfly species etc. The gorge is a "bottle-neck" site on the Via Aristotelis bird migration route.

In January 1996 the territory of the gorge was listed as a Bulgarian CORINE Site woith Code No F00002500 and name "Kresna" as part of the CORINE Biotopes program. The "Tissata" strict nature reserve (CORINE Sub-Site F00002501) is situated within the Kresna gorge. The reserve is recognised as an Important Bird Area (code number BGN03) of global conservation importance representative for the Mediterranean zone. Eight species of birds, limited in terms of biomes and characteristic of the Mediterranean zone are represented here. The strict reserve covers only 4% of the territory of the "Kresna" Site. The biggest part of the area of the CORINE Site "Kresna" is not protected under Bulgarian legislation.

2. Evaluation of the expected impact of the different alternative motorway routes on the habitats and species of high conservation importance.

2.1. Summary of the expected impact

Both variants – widening of the existing road more than twofold to the motorway standards or a motorway construction through low viaducts and tunnels, will irreversibly affect natural habitats of the gorge through causing:

- Direct destruction of the habitats of a number of species listed in Appendix 2 to the Bern Convention and in the Annexes to the Council Directives 79/409 and 92/43 (Birds and Habitat Directives). For many of these species Kresna Gorge is the most important (or one of the most important) refuges in Bulgaria;
- Direct destruction of valuable natural habitats including the river stream, eastern plane riparian forests (especially through the construction of viaducts) and xerothermophilous Greek juniper and white oak forests located on the gorge slopes. These are important habitats listed in the Habitat Directive and/or Resolution 6 of the Bern convention, and Kresna Gorge is the most important site for their conservation in the country;
- Occupation of the bottom of the gorge with engineering facilities, destruction of natural habitats and placement of an effective migration barrier along the valley for insects, amphibians, some snakes, birds, bats. Through this the regular migration of amphibians, reptiles and small mammals up and down the gorge slopes will be seriously hindered.
- Migration barrier for large mammals such as bears and wolves.
- Increase of the road deaths of flying animals such as insects, bats and birds
- Fragmentation and isolation of the populations of some priority snake species;

2.2. Natural habitats

2.2.1. Priority habitats.

Four types of habitats listed to Annex 1 of the Habitats Directive are present on the territory of the Kresna CORINE Biotopes Site:

- Oriental plane woods (Annex 1: 44.7; subtype: 44.711 Helleno-Balkanic riparian forests). In accordance to the classification of CORINE, the "Kresna" Site is one of the five most important sites in the country for this habitat type.
- Endemic Mediterranean forests with *Juniperus spp.* (Annex 1: 42.A2 to 42.A5 and 42.A8; subtype: 42.A3 Grecian juniper woods (*Juniperetum excelsae*)) a priority habitat type of European importance. Kresna gorge is the most important site on the Balkan Peninsula for this habitat type.
- Juniper formations (Annex 1: 32.131 to 32.135; subtype: 32.133 *Juniperus excelsa* and *J. foetidissima* arborescent matorrals) a habitat type of European importance. In accordance to the classification of CORINE, Kresna is one of only 5 or less sites in the region hosting this habitat type.
- Mediterranean pine forests with endemic black pines (Annex 1: 42.61 to 42.66; subtype: 42.66 Pallas' pine forests) priority habitat type on European level. The Kresna gorge is not a priority site for the protection of this habitat type on national level.

One habitat type is included only in the resolution 6 of the Bern convention:

• Thermophillous and Supra-Mediterranean oak woods, subtype Moesian white oak-oriental hornbeam woods (Code 41.73721). Kresna Gorge is not a priority site for the conservation of this habitat type.

2.2.2. Impact of the alternative motorway routes inside the gorge on the priority habitats.

During the motorway construction significant areas covered by the priority habitats will be destroyed. This regards especially the riparian forests, which will be almost completely removed along the main part of the gorge length. Greek juniper woods will be affected in the southern part of the "Tissata" reserve buffer zone, where the motorway is designed to run through the slopes situated above the riparian forest belt. Greek juniper forests and other xerothermic habitats will be affected by the viaducts and tunnels variant. Areas where the motorway will pass through the slopes will be completely destroyed. All these negative changes will be permanent and without recovering possibilities or compensatory measures.

The priority habitats located close to the motorway will be influenced by increasing air and noise pollution. Changes in the species composition of these habitats can be expected as a result of extinction of some native species and the spreading of sinantropic aliens. This process is already ascertained through the method of bio-indication using sensitive indicators such as lichens.

2.2.3. Impact of the NGOs' alternative routes bypassing the gorge on the priority habitats

Direct destruction of priority habitats will be avoided. Some areas covered by white oak woods will be affected. Compensatory measures can be conducted by restring native habitats on conifer plantation sites. In the case of alternative variant 1 some marginal sites of the distribution area of Greek juniper woods and Oriental plane woods located in the lateral river valley of Vlahina can be affected by noise and air pollution arising from tunnel entrances. The affected area will not be large though, especially in comparison to the whole core area of the Kresna CORINE site, which will bypassed by this alternative route.

2.3. Fishes

2.3.1. Priority species

One fish species – *Aspius aspius* – is listed in the appendices to the Bern Convention and in the Annexes to the Habitats Directive. According to the description of the Kresna CORINE Site, the area

is one of the most important sites in the Struma river basin for its conservation. This species inhabits the stream of the Struma river and is very rare.

2.3.2. Impact of the alternative motorway routes inside the gorge to the habitats of Aspius aspius.

All variants for the motorway construction in the gorge are related to intensive construction works in the Struma riverbed. In this way the natural character of the landscape and the local habitats will be destroyed. The river water will be affected by continuous water pollution originating from the motorway surface passing along the river stream.

2.3.3. IMPACT OF THE NGOs' ALTERNATIVE ROUTES BYPASSING THE GORGE ON THE HABITATS OF ASPIUS ASPIUS

The NGOs' alternatives do not affect the habitats of this species.

2.4. Amphibians

2.4.1. Priority species

Two amphibian species inhabiting the Kresna gorge are listed in the Appendices to the Bern Convention and in the Annexes to the Habitats Directive, namely *Triturus cristatus* and *Bombina variegata*. For both species the Kresna gorge is not the most important site for conservation and they are common or in the case of *Bombina variegata* very common on the territory of the whole country.

Three other species – Rana dalmatina, Pelobates syriacus balcanicus and Bufo viridis – are listed in Appendix 2 of the Bern Convention. Pelobates syriacus is listed in the national Red Data Book and is a species of high conservation importance on national level. Kresna Gorge is one of the most important sites for its conservation in South-western Bulgaria.

2.4.2. Impact of the alternative motorway routes inside the gorge on the habitats of Pelobates syriacus

All variants for the motorway construction in the gorge are related to complete destruction of the wet zones, in which the species breeds. These wet zones are situated between the town of Kresna and the Kresna CORINE Site. Most probably the motorway construction will lead to full extinction of the species from the area.

2.4.3. Impact of the NGOs' alternatives bypassing the gorge on the habitats of Pelobates syriacus

The NGOs' alternative routes do not affect habitats of this species.

2.5. Tortoises and turtles

2.5.1. Priority species

Three species are listed in the Annexes to the Habitat Directive and in the Appendices to the Bern Convention: two tortoise species – *Testudo Hermanni* and *Testudo greaca*, and a turtle – *Emys orbicularis*. Kresna gorge is one of the most important sites in Bulgaria for the conservation of both tortoise species, but is not of high priority for the turtle species.

2.5.2. Impact of the alternative motorway routes inside the gorge on the tortoises' habitats

All variants for the construction of the motorway in the gorge will lead to significant loss of habitats of the tortoises. The widening of the existing road should is perhaps the most threatening alternative. It will cause cutting of the lateral slopes and will create steep and high road sides. The river stream will be situated on the other site of the motorway, just to its margins. All small animals, which will fall down on the motorway, will die on it. This alternative will create an inevitable and mortal migration barrier for small animals. Road deaths of tortoises and other small animals are frequent even at present, but will increase tremendously after the widening of the road.

2.5.3. Impact of the NGOs' alternative routes bypassing the gorge on the tortoises' habitats

Tortoises inhabit sites until 1200 m a.s.l, thus the NGOs' alternative routes will affect their habitats. There are several reasons in favour of the NGOs' alternatives comparing to those passing through the gorge:

- The most dense tortoise populations are concentrated in the warmer law altitude areas of the gorge;
- More than 50 % of motorway route outside the gorge will not run directly on the ground and tortoises' habitats will not be affected;
- Technical road facilities can be constructed to enable migration of small animals across the motorway, in the parts where it runs directly on the ground.

2.6. Snakes

2.6.1. Priority species

Four species of snakes are listed in Appendix 2 to the Bern Convention – *Elaphe quatrolineata*, *Elaphe situla*, *Telescopus fallax*, *Elaphe longissima*, and one species is listed in Appendix 3 – *Typhlops vermicularis*. Two of the species are listed in the Annexes of the Habitats Directive as priority species – *Elaphe quatrolineata* and *Elaphe situla*. All five species are included in the national Red Data Book. With the exception of *Elaphe longissima*, Kresna gorge is the most important site in Bulgaria for the conservation of these snakes.

2.6.2. IMPACT OF THE ALTERNATIVE MOTORWAY ROUTES INSIDE THE GORGE ON THE HABITATS OF THE SNAKE SPECIES

All variants for the construction of the motorway in the gorge will lead to significant loss of habitats of the priority species of snakes. The motorway construction in the narrow rocky gorge will require various techniques for digging, rock demolition, scree crush, tree logging, etc. The application of these construction works will cause complete destruction of wetlands situated close to the river, riparian forest and adjacent xerothermic forests or scree slopes. The ecotone of habitats situated close to the riverbed is essential for the survival of *Elaphe situla*, *Elaphe longissima*, *Elaphe quatrolineata* and *Telescopus fallax*. Old hollow trees are essential for the breeding of *Elaphe longissima*. The motorway will heavily affect not only the listed above habitats of these species, but also agriculture lands and sandy soil pastures located in the wider south part of the gorge, which are important for the *Typhlops vermicularis* species.

The widening of the existing road close to the riverbed will set an inevitable and mortal migration barrier for all these species and road deaths will increase tremendously.

The Kresna gorge bottom is an important bio-corridor for the migrations of all reptiles. The replacement of natural habitats by artificial man-made surfaces will lead to disruption of the migration routes. Populations of priority snake species will be fragmented into small isolated groups inhabiting lateral river valleys.

2.6.3. Impact of the NGOs' alternative motorway routes bypassing the gorge on the habitats of snakes

The NGOs' alternatives guarantee the preservation of the major populations' part of the priority snake species. Variant 2 bypassing the Kresna CORINE Site affects only habitats of minor importance, where specimens of *Elaphe quatrolineata*, *Elaphe situla* and *Telescopus fallax* appear only occasionally. Variant 1 crosses the lateral valley of Vlahina river at lower altitudes than variant 2. The area is a marginal part of the CORINE Site, and the river valley hosts some marginal habitats of the three snake species. The motorway will pass via viaducts and tunnels running across the valley, thus preserving the migration corridor along the valley and the local migration processes up and down the slopes.

Both variants will pass through the area of distribution of *Elaphe longissima*. This snake is not a Mediterranean species and is common also at higher altitudes than other snakes. The tunnels and viaducts, crossing the river valleys will preserve the major part of its habitats and migration corridors. Where the motorway will run directly on the ground facilities for crossing of the motorway will be constructed.

The alternatives outside the gorge will destroy small territories of *Typhlops vermicularis* habitats located at low altitudes in the southern part of the area. The affected habitats will be less than those affected by a motorway route passing through the gorge.

2.7. Birds

2.7.1. Priority species

37 species listed in the Appendices to the Bern convention and in the Annexes to the Birds Directive breed in the Kresna gorge – Ciconia nigra, Ciconia ciconia, Neophron percnopterus, Gyps fulvus, Accipiter brevipes, Pernis apivorus, Buteo rufinus, Aquila pomarina, Aquila chrysaetos, Circaetus gallicus, Falco peregrinus, Coturnix coturnix, Alectoris graeca, Perdix perdix, Streptopelia turtur, Caprimulgus europaeus, Alcedo atthis, Coracias garrulus, Picus canus, Picoides medius, Picoides major, Picoides syriacus, Melanocorhypha calandra, Calandrella cinerea, Lullula arborea, Alauda arvensis, Anthus campestris, Lanius colurio, Lanius minor, Monticola saxatilis, Turdus merula, Turdus philomelos, Turdus viscivorus, Hippolais olivetorum, Sylvia nisoria, Sylvia cantillans, Emberiza hortulana.

8 species representative for the Mediterranean zone nest in the area – Alectoris graeca, Oenanthe hispanica, Hippolais olivetorum, Sylvia cantilans, Sylvia melanocephala, Sitta neumayer, Lanius nubicus, Emberiza melanocephala.

The Kresna Gorge is the most important area in Bulgaria for the conservation of two species listed in the Appendices to the Bern convention – *Otus scops* and *Monticola solitarius* and for one species listed in the Appendices to the Bern convention and the Annexes to the Birds Directive – *Monticola* saxatilis.

2.7.2. IMPACT OF THE ALTERNATIVE MOTORWAY ROUTES INSIDE THE GORGE ON THE HABITATS OF PRIORITY BIRD SPECIES

The motorway construction through the gorge will result in the destruction of riparian forests, thus will eliminate the most important habitats of the Via Aristotelis bird migration route. High trees growing around the river stream in the gorge are important for resting and feeding of birds during their migrations and wintering. Outside the gorge, both to the south and to the north riparian forests are almost extinct.

The xherothermical forests and bushes spread over the gorge slopes will be partially affected, which is a negative impact on habitats of the Mediterranean bird species.

The frequency of road deaths will increase significantly. The ecotone effect, the rich feeding sources and the migration route lead to high concentration of birds in the bottom of the gorge.

2.7.3. IMPACT OF THE NGOs' ALTERNATIVE ROUTES BYPASSING THE GORGE ON THE HABITATS OF PRIORITY BIRDS

The NGOs' alternatives are designed to run distantly from the river stream and the bottom of the gorge. They cross the lateral valleys via high viaducts, thus the frequency of road deaths will decrease

in comparison even with the present conditions. The designed routes do not affect Greek juniper forests, Mediterranean plant communities and significant rocky habitats. In this way the main habitats of Mediterranean bird species and breeding rocks for birds of pray will not be affected.

2.8. Bats

2.8.1. Priority species

Eight species of bats are listed in the Appendices to the Bern Convention and the Annexes to the Habitats Directive – Rhinolophus ferrumequinum, Rhinolophus hipposideros, Rhinolophus euryale, Myotis blythi, Myotis emarginatus, Myotis bechsteinii, Miniopterus schreibersi, Barbastella barbastellus.. For two of the species – Rhinolophus ferrumequinum and Myotis emarginatus – these localities are the only known sites for breeding in the Struma river valley.

2.8.2. IMPACT OF THE ALTERNATIVE MOTORWAY ROUTES INSIDE THE GORGE ON THE HABITATS OF PRIORITY BAT SPECIES

The construction works will cause demolition of rocks and logging of old-growth trees. Both provide important summer and winter shelters for bats and are essential habitats for their survival. Such suitable shelters as rock caves and fissures, and big hole trunks are located mainly around the Struma river.

During their feeding bats are often concentrated in the bottom of the gorge, where the number of insects is high due to the favourable microclimate conditions. As a result bats are amongst the most frequent victims on the existing road. Strong traffic increase through the gorge will inevitable cause dramatic enlargement in bat road deaths.

2.8.3. Impact of the NGOs' alternative routes bypassing the gorge on the habitats of priority bats

The construction of the NGOs' alternative routes will not lead to destruction of any rocky habitats. The forests, which will be affected by the construction works, are young coniferous plantations.

By bypassing the gorge, these alternative routes will allocate transit traffic apart from the region with highest bat concentrations during feeding, therefore road deaths will decrease and present conditions for the conservation of bats will be improved.

2.9. Large carnivores

2.9.1. Priority species

Three priority species of carnivores inhabit the Kresna gorge – Ursus arctos, Canis lupus, and Lutra lutra. For the brown bear (Ursus arctor) the gorge comprises a migration corridor, while the main breeding and feeding habitats of the species are located eastwards of the gorge in the Pirin National Park. The wolf (Canis lupus) and the otter (Lutra lutra) inhabit the gorge through the whole year. Habitats of the otter are the Struma river and the adjacent riparian forests.

Kresna gorge is the most important migration corridor for carnivores along the Struma river, since it connects mountains located eastwards and westwards to the main river stream.

2.9.2. IMPACT OF THE ALTERNATIVE MOTORWAY ROUTES INSIDE THE GORGE ON THE HABITATS OF PRIORITY CARNIVORE SPECIES

The replacement of natural habitats by road and rail surfaces in the bottom of the gorge, the constant traffic and increased levels of noise will disrupt the migration of carnivores. The otter will be also strongly affected because the most important habitats for the species will be eliminated at almost all the length of the gorge.

2.9.3. Impact of the NGOs' route alternatives bypassing the gorge on the habitats of priority carnivore species

The alternative routes involve options not affecting otter habitats and preserving and even improve conditions for migration of carnivores. The present road passes through the gorge by cutting its slopes directly above the riverbed. Open road surface, traffic and noise do not disturb the migration of carnivores. Alternatives outside the gorge will run through viaducts and tunnels, thus will not affect the migration routes.

Attachment 3

MINISTRY OF REGIONAL DEVELOPMENT AND PUBLIC WORKS

NATIONAL EXPERT COUNCIL FOR TERRITORIAL PLANNING AND REGIONAL POLICY (NECTPRP)

APPROVED BY: MINISTER KOSTADIN PASKALEV

DECISIONS

Taken at the meeting of NECTPRP, held at 23 July 2002, on the base of Order N RD-02-14-611/10.07.2002 of the Minister of Regional Development and Public Works and on Minutes N NES-02-22/08.08.2002.

About point 1.1

- 1. Approves the feasibility studies about Liulin Motorway for a road-bed following a combined version: "blue" version switching over to "brown" version from km 0+000 to km 5+000, and "brown version" from km 5+000 on.
- 2. Confirms the dimensions of A-29 Motorway and envisages improvement of the road-bed plan and level.
- 3. The next planning phase shall reflect the recommendations and notes from reviews and positions and shall consider the requirements of exploitation associations and directions at the Ministry of Regional Development and Public Works and pay special attention to the precision of:
- road junction "SOP" by using the General Territorial Development Plan of Sofia
- road junction "Daskalovo" by keeping the option to include a remote surrounding route to the west of Sofia
- the crossing of the railway
- specifying and observing ecological measures and the conservation of archaeological monuments.
- 4. The planning shall take place after a positive decision has been taken about the Environmental Impact Assessment (EIA).
- 5. Approves the review of Prof. Doctor Eng. Ivan Sakarev and Eng. Delyana Sechenska and the submitted written positions.

About point 1.2.

- 1. Accepts the feasibility studies of SPEA Ingeneria Europea about "Strouma" Motorway and finds them corresponding to the terms of reference for the motorway planning.
- 2. Finds the alternative version developed by the team of designers from "Krassi-Bo" company, lead by Eng. Koycho Boyadjiev, to be better, economically more profitable and more suitable for Bulgarian conditions and takes it as a base for further planning.
- 3. The planning of the next phase shall continue after EIA procedures have been finalized, including assessment of the "brown" version of "Krassi-Bo" company.
- 4. The recommendations and notes from the review and the written positions shall be reflected and a synthesized version of the road-bed shall be developed, paying special attention to the:

- route surrounding the town of Blagoevgrad,
- "Tissata" Reserve,
- Marikostino springs,
- archaeological monuments,
- tourist routs.
- 5. After the EIA procedures have finished, another review of the complex version for road stabilization shall be made. The planning of the next phase shall go on by sections.
- 6. Approves the review of Eng. Iv. Kolarov and the submitted written positions, including those of Prof. Eng. Ganju Shtilyanov and Eng. Yanko Bogatinov.

SECRETARY OF NECTPRP: DEPUTY CHAIR OF NECTPRP:

(Architect V. Panova) (Eng. P. Dikovski)

CHAIR OF NECTPRP:

(Arch. M. Videlov)