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Број / №: 350-02-114/2014-16

Датум/Date: 04.02.2015.

ROMANIA
MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE

Minister, Grația Leocadia Gavrilescu

B-dul Libertății nr. 12, Sector 5
040129 Bucharest

Subject: Notification

Dear Minister,

In accordance with provisions of the article 10. of the Protocol on strategic environmental assessment to the Convention on environmental impact assessment in a transboundary context, we hereby inform you that the Republic of Serbia is in final phase of development of the **Strategy on Development of Waterborne Transport of the Republic of Serbia, 2015-2025** and the Environmental report of the Strategy.

Please find appropriate to evaluate if the implementation of the Strategy is likely to have significant transboundary environmental, including health, effects in your country and notify us whether you want to enter into consultations.

We are enclosing the Notification of proposed activities and the Executive summary of the Strategy on Development of Waterborne Transport of the Republic of Serbia, 2015-2025.

We are looking forward to your response in a deadline of three weeks from the date of receipt of the present notification letter.

Sincerely Yours,


MINISTER

Professor Snežana Božosavljević Bošković, Ph.D

INFORMATION ON THE PROPOSED ACTIVITY**(i) Information on the nature of the proposed activity****Type of plan proposed**

Adoption of the Strategy on Development of Waterborne Transport of the Republic of Serbia 2015-2025

Is the proposed activity listed in Appendix I to the Convention? YES

Scope of proposed activity

Development of:

- 1) Ports in the Republic of Serbia
- 2) Inland Waterways (Fairways)

Scale of proposed activity

(e.g. size, production capacity, etc.)

- 1) Extension of port areas of:
 - Port of Bogojevo (reconstruction of port quay, construction of new warehousing capacities up to 100.000 tones, railway connection, intermodal terminal. Size of port area, capacity, etc. shall be defined by the technical documentation)
 - Port of Bačka Palanka (construction of container terminal, Liquid Cargo Terminal, Bulk Cargo Terminal, construction of port quay, silos and railway connection. Size of port area, capacity, etc. shall be defined by the technical documentation)
 - Port of Prahovo (construction of new port quay, construction of Container Terminal and Liquid Cargo Terminal. Size, production capacity, etc. to be defined by the technical documentation)
- 2) Relocation of:
 - Port of Apatin (size, production capacity, etc. to be defined by the technical documentation)
- 3) Removal of inland waterways (fairways) bottlenecks on following sectors on the river Danube:
 - Bezdán (1429,0 - 1425,0)
 - Siga Kazuk (1424,2 - 1414,4)
 - Apatin (1408,2 - 1400,0)
 - Čivutski rukavac (1397,2 - 1389,0)
 - Ušće Drave (1388,8 - 1382,0)
 - Aljmaš (1381,4 - 1378,2)
 - Staklar (1376,8 - 1373,4)
 - Erdut (1371,4 - 1366,4)
 - Bogojevo (1366,2 - 1361,4)
 - Dalj (1357,0 - 1351,0)
 - Borojevo 1 (1348,6 - 1343,6)
 - Borojevo 2 (1340,6 - 1338,0)

<ul style="list-style-type: none"> - Vukovar (1332,0 - 1325,0) - Sotin (1324,0 - 1320,0) - Opatovac (1315,4 - 1314,6) - Mohovo (1311,4 - 1307,6) - Bačka Palanka (1302,0 - 1300,0) - Susek (1287,0 - 1281,0) - Futog (1267,4 - 1261,6) - Novi Sad (/) - Arankina Ada (1247,0 - 1244,8) - Čortanovci (1241,6 - 1235,0) - Beška (1232,0 - 1226,6) - Preliv (1207,0 - 1195,0)
<p>Description of proposed activity (e.g. technology used)</p> <p>The strategy sets out the basic guidelines for:</p> <p>1) Construction of port infrastructure (quay walls and similar structures), port connections (roads, paths, railway tracks with accompanying railway devices), plumbing, sewerage, energy and communication networks, lighting, fences, and other structures and devices serving for the safe approach and berthing of vessels) including port superstructure for functioning of a port terminals, as well as dredging inside the port area or on the waterway access to and from the ports.</p> <p>2) Removal of inland waterways (fairways) bottlenecks:</p> <ul style="list-style-type: none"> - stakeholders consultation within the cross-border Stakeholders' Forum, - prioritization process (to identify the most critical bottlenecks), - multi-criteria analysis for identification of best technical solutions in terms of influence to navigational conditions, environmental impact, costs and technical feasibility - - - - preparation of designs and environmental monitoring programme (monitoring before, during and after works) related to hydro-morphology, biology and sediment and water quality - implementation of works and monitoring programme
<p>Description of purpose of proposed activity</p> <p>1) Extension of port areas and construction or reconstruction of port infrastructure, 2) Removal of inland waterways (fairways) bottlenecks</p>
<p>Rationale for proposed activity (e.g. socio-economic, physical geographic basis)</p> <p>Economic development of ports hinterlands, percentage increase in the of use of waterborne transport as economical and environmental friendly mode of transport, balanced regional development of the Danube region within the Republic of Serbia</p>
<p>Additional information/comments No</p>
<p>(ii) Information on the spatial and temporal boundaries of the proposed activity</p>

<p>Location</p> <p>River Danube Basin within the Republic of Serbia (which includes river Sava and river Tisa) as well as Canal Danube-Tisa-Danube</p>
<p>Description of the location (e.g. physical-geographic, socio-economic characteristics)</p> <p>Danube River is international waterway with the length within the Republic of Serbia of 587.6 km, from the border with Hungary (rkm 1433.1) to the border with Bulgaria (rkm 845.5). Part of this river forms a natural border with the Republic of Croatia and Romania. On the Serbian part of the river Danube are located 9 ports (Apatin, Bogojevo, Bačka Palanka, Novi Sad, Beočin, Beograd, Pančevo, Smederevo and Prahovo). River Danube is main axis of inland water transport network which facilitate Serbian export and import as well as connection of domestic ports/harbours and their hinterlands (industrial centers). Several industries may export goods on foreign markets mainly via inland waterway transport, (e.g. Construction industry, mining, metallurgy, chemical and oil industries, etc.).</p> <p>River Sava is international waterway with the length within the Republic of Serbia of 210.8 km. Part of this river forms a natural border with the Republic of Bosnia and Herzegovina. On the Serbian part of the river Sava are located 2 harbours (Šabac and Sremska Mitrovica).</p> <p>River Sava is interstate waterway with the length within the Republic of Serbia of 164 km. On the Serbian part of the river Tisa is located Port of Senta.</p> <p>Canal network Danube - Tisa - Danube in regard to the regulation of the water regime is of immeasurable importance for the sustainable development of this part of the Republic of Serbia. This channel network simultaneously in all stages of its construction has been designed as a unique waterway integrated with Danube and Tisa inland waterways. The total length of navigable canal network is approximately 600 km.</p>
<p>Rationale for location of proposed activity (e.g. socio-economic, physical-geographic basis)</p> <p>Physical-geographic location of the rivers Danube, Sava and Tisa</p>
<p>Time-frame for proposed activity (e.g. start and duration of construction and operation)</p> <p>2015-2025</p>
<p>Maps and other pictorial documents connected with the information on the proposed activity</p> <p>Enclosed to the Notification</p>
<p>Additional information/comments NO</p>

(iii) Information on expected environmental impacts and proposed mitigation measures

Scope of assessment (e.g. consideration of: cumulative impacts, evaluation of alternatives, sustainable development issues, impact of peripheral activities, etc.)

Inland waterway development requires the improvement or development of navigation and related infrastructure. To sustain navigation, waterways must be safe and reliable, with certain physical characteristics related to depth, clearance, width, alignment and current velocity. To sustain their ecological character and environmental quality, waterways must also maintain their ecosystem functions (their natural physical, chemical and biological processes). The major problems reported on the planning of inland waterway development and relate to competition for use of the waterway (hydropower, navigation, flood control, agriculture, ecology, natural parks), for both canal and river systems and adjacent areas (wetlands, flood plains) and associated river training works: dams, weirs, locks, groyne systems, bank protection, etc. Canal and river systems, besides being used as waterways, usually have other important functions as part of river and wetlands ecosystems, as sources of water supply or for land drainage. Sustainable waterway development and management necessitate striking a balance over the intermediate and long run between the objectives of various water users and the carrying capacity of the natural system.

Cumulative impacts and measures:

Water level - The simulated long term water level change does not significantly impact the ecology nor the flood risk.

River Ecosystem - if dredging, transport of dredged material should be done on the water and during the transport on the fairway by barges, all necessary measures should be provided so that stone aggregate or fine fractions are not dissipated.

Pollution from waste and wastewater originating from ships – restrict and regulate by national and international legislation the type of anti-fouling agents to be used.

Air pollution and energy consumption during construction works use of modern and energy efficient equipment.

Expected environmental impacts of proposed activity (e.g. types, locations, magnitudes)

Port activities give rise to significant impacts in terms of emissions, noise, water and soil pollution and fragmentation of habitats. Ports located close to densely populated urban areas may often have to balance the development and management of port activities with the preservation of natural habitats and the quality of urban life. Port work remains an occupation with a high risk of accidents and health implications for workers. It is essential to have a system in place to protect the health, safety and welfare of port workers and users, in line with applicable health and safety legislation. Port work remains an occupation with a high risk of accidents and health implications for workers. It is essential to have a system in place to protect the health, safety and welfare of port workers and users, in line with applicable health and safety legislation. Dredging sometimes has severe impacts, especially when sediments are contaminated with

<p>industrial discharges. Bank reconstruction can completely transform or remove habitats. Foremost among the potential impacts are hydromorphological pressures. Altering the shape of river courses to improve navigation affects bottom and bank characteristics and the dynamics of sediment transportation.</p>
<p>Inputs (e.g. raw material, power sources, etc.)</p> <p>/</p>
<p>Outputs (e.g. amounts and types of: emissions into the atmosphere, discharges into the water system, solid waste)</p> <p>Exhaust emissions from a marine diesel engine such as carbon dioxide, quantities of carbon monoxide, oxides of sulphur and nitrogen. The exhaust gases are emitted into the atmosphere from the ship stacks and diluted through interaction with ambient air. Risks of water pollution from fuel and oil spillage, from accidents and from disposal of waste and wastewater from vessels; and of pollution from shore or bankside activities such as vessel maintenance, fuel and goods storage, trading areas and inland ports. Solid waste can be produced during construction and activities from ports.</p>
<p>Transboundary impacts (e.g. types, locations, magnitudes)</p> <p>The only potential transboundary impact from the project that has been identified concerns the impact due to disturbances of migrating overwintering water fowl. There are substantial uncertainties on the importance of this potential impact.</p>
<p>Proposed mitigation measures (e.g. if known, mitigation measures to prevent, eliminate, minimize, compensate for environmental effects)</p> <p>The specific objective is dedicated to transnational water management and flood risk prevention, by joint monitoring and joint development of measures to improve water quality and ecological status, joint management of flood risks, building awareness for joint action and tackling significant pressures identified in the region (e.g. water pollution, disconnection of adjacent wetlands/floodplains, conflicts with inland navigation and infrastructure projects). This objective will have positive effect on water quality, hydrology and natural water bodies. Technological changes and new transport and logistics needs will drive requirements for mastering innovative port operations and the need for employees with the right skills, training and qualifications to understand, master and exploit all the advantages provided by the new technologies.</p> <p>As the SEA assessment is currently being undertaken the impacts are not yet known and therefore the mitigation and monitoring measures have not been defined yet</p>
<p>Additional information/comments NO</p>
<p>(iv) Proponent/developer</p> <p>Name, address, telephone and fax numbers</p>
<p>(v) SEA documentation</p> <p>Is the SEA documentation (e.g. SEA report) included in the notification? If no/partial, description of additional documentation to be forwarded and</p>

(approximate) date(s) when documentation will be available.

SEA documentation is not included in the notification.

Additional information/comments NO

2. POINTS OF CONTACT

(i) Points of contact for the possible affected Party or Parties

Authority responsible for coordinating activities relating to the SEA (refer to decision I/3, appendix)

Name, address, telephone and fax numbers

To be delivered by the diplomatic post

List of affected Parties to which notification is being sent

Hungary, Republic of Croatia, Romania, Bulgaria

(ii) Points of contact for the Party of origin

Authority responsible for coordinating activities relating to the SEA (refer to decision I/3, appendix)

- Name, address, telephone and fax numbers

Miroslav Tošović,
Omladinskih brigade 1
00381 11 2690977
00381 11 3132574

Decision-making authority if different than authority responsible for coordinating activities relating to the SEA

- Name, address, telephone and fax numbers

Leposava Sojić
Nemanjina 22-26
00381 11 362 16 98
00381 11 361 7486

3. INFORMATION ON THE SEA PROCESS IN THE COUNTRY WHERE THE PROPOSED ACTIVITY IS LOCATED

(i) Information on the SEA process that will be applied to the proposed activity

Time schedule

- 2014-2015

Opportunities for the affected Party or Parties to be involved in the SEA process

- During 2015

- During 2015

Nature and timing of the possible decision

- During 2015

Process for approval of the proposed activity

- During 2015
Additional information/comments
INFORMATION ON THE PUBLIC PARTICIPATION PROCESS IN THE COUNTRY OF ORIGIN
<p>Public participation procedures</p> <p>Public consultation on the Draft Report on Strategic Environmental Impact Assessment shall include publishing of its text at the premises of Directorate for Inland Waterways and the website of the Ministry of Construction, Transport and Infrastructure. Public consultation shall also include public hearing which will be held during December, 2014 in the premises of Directorate for Inland Waterways.</p>
<p>Expected start and duration of public consultation</p> <p>Public consultation shall start on December 9 and concludes on 23 December, 2014</p> <p>Public hearing (presentation) shall be held on December 12, 2014</p>
Additional information/comments NO
5. DEADLINE FOR RESPONSE
<p>Date</p> <p>According to the date of receipt of notification, within 30 days</p>



Министарство грађевинарства,
саобраћаја и инфраструктуре

Plavput

Универзитет у Београду
САОБРАЋАЈНИ ФАКУЛТЕТ
УПРАВНА КАТЕДРА ЗА ПРОЈЕКТО
И ЕКОНОМСКИ ЕНЖИЊЕРИНГ
ОПШТИНАЛНИ РАДНИ ПРОЈЕКЦИ
И ПРИБОРНИШТА И ТЕХНОЛОГИЈЕ



Executive Summary for the Development Strategy on Waterborne Transport of the Republic of Serbia, 2015-2025

Introduction

On the basis of the Law on Navigation and Ports on Inland Waters, the Ministry of Construction, Transport and Infrastructure of the Republic of Serbia is in the procedure of preparation **the Development Strategy on Waterborne Transport of the Republic of Serbia 2015 - 2025**. It provides a clear strategy for the development of Serbian's water transport sector for the next 10 years. To be of value it needs to provide quality of applicable solutions for Serbian's transport problems and challenges.

The Development Strategy on Waterborne Transport of the Republic of Serbia, 2015 - 2025 identifies that the Serbian infrastructure policy complies with the policy of the European Union and it will meet the Serbia's national transport needs in a best way over the next 5-10 years, especially if we speak about waterway transport. It provides analytical basis for the choice of good policies and projects.

In this sense, the transportation network which consists of the Danube waterway, with length of 588 km and its navigable tributaries, along with Serbian road and rail corridors, getting in importance within the overall European transport policy for the period 2014-2020. The New European policy opens significant opportunities for better positioning and development of waterway transport in the Republic of Serbia, which was analyzed within the Strategy for the period 2015-2025.

Taking into account the Europe 2020 Strategy for smart, sustainable and inclusive growth, the EU Strategy for the Danube Region, the White Paper "Roadmap to a Single European Transport Area", and keeping in mind the Convention regarding the Regime of Navigation on the Danube and the European Agreement on Main Inland Waterways of International Importance (AGN), within the priority areas 1a EU Strategy for the Danube Region – "to improve mobility and multimodality": Inland waterways, Ministers and Heads of Delegations responsible for Transport from eight EU Member States signed in Luxembourg "the Declaration on Effective Waterway Infrastructure Maintenance on the Danube and its Navigable Tributaries". Master Plan for the Rehabilitation and Maintenance of the Danube and its tributaries has been developed following the good practice of cooperation in the framework of the Danube Strategy. Ministers responsible for Transport have signed the Conclusions on effective waterway infrastructure rehabilitation and maintenance on the Danube and its navigable tributaries, considering the importance of the Master Plan for the Rehabilitation and Maintenance of the Danube and its tributaries.

It should be noted that the "Master Plan and Feasibility Study for inland waterway transport in the Republic of Serbia" was adopted in 2006. Some priority projects are implemented so far.

The implementation of other projects, defined in the Serbian Master Plan, and regular maintenance of international waterways are in accordance with accepted standards of navigation taking into account the key European corridor Rhine-Danube which passes through Serbia. In that way it is possible to suggest a serious

development of comprehensive transportation network of the Republic of Serbia, at the national level for the period 2015-2025 in accordance with the new EU policy.

As a part of developing effective SEETO comprehensive network and strengthening of the basic system of transport planning under preparation is updating of the Regional Infrastructure Study in Balkans (REBIS). The aim of the project is to develop models of the transport requirements of the Western Balkans (relying on the key variables of the trade flows, income and population), with the identification of key transport corridors / routes / links in SEETO comprehensive network, which promotes the removal of bottlenecks and regional integration, mobility and sustainable development.

Based on the experiences of the EU Strategy for the Baltic Sea Region as well as the EU Strategy for the Danube Region in coordinated monitoring of maritime transport and multimodal transport, and including connecting seaports and river ports with road and rail corridors will be increased the competitiveness of the Adriatic-Ionian region. The Republic of Serbia is the only one of eight countries participating in EUSAIR, which has no direct access to the sea. Anyway, on the initiative of the Republic of Serbia has recognized the need to develop multi-modal transport, especially linking sea and river ports.

Following programming process, within the Adriatic-Ionian transnational cooperation program, of the particular importance will be promotion a sustainable transport and removing bottlenecks in key infrastructure networks.

The Development Strategy of Waterborne Transport of the Republic of Serbia must contribute to Serbia's economic development in a sustainable manner.

The high level outcomes that the Strategy will produce are:

Outcome 1: RENEWAL AND IMPROVEMENT OF THE NATIONAL FLEET

Detailed analysis has confirmed the need for renewal and reconstruction of existing vessels that navigate under the flag of the Republic of Serbia, in accordance with the applicable international standards and national regulations.

Transport of goods by different transport modes depends directly on the type and quantity of goods being transported. The Republic of Serbia has possibility to become recognizable by a significant percentage of goods transported by inland waterways in the total volume of goods transport of all transport modes. Inland waterways transport is the most suitable type of transport for large quantities of goods, order to export or to import.

The Republic of Serbia could be recognized as a country which has under its flag a significant number of quality inland vessels, which are recently constructed. It will contribute to preserve the national cargo fleet which are adapted to European market cargo fleet of inland vessels.

Outcome 2: THE DEVELOPMENT OF THE ECONOMIC POTENTIAL OF PORTS AND HARBORS OF THE REPUBLIC OF SERBIA

Raising the overall level of the quality of services of inland waterway transport through the provision of competitive port services means a raising the level of the management of ports to the level of highly efficient and flexible.

Highly organized and profitable port sector would provide the highest level of the carrier and shippers of goods, providing constantly improving and upgrading of ports in the Republic of Serbia.

Outcome 3: DEVELOPMENT OF THE INLAND WATERWAYS IN THE REPUBLIC OF SERBIA

The Republic of Serbia as a part of the European Union has wide network of waterways with possibility of free trade and fair competition and important markets interchanges (relatively undeveloped at the moment) but with huge potential. To achieve European standards of safe navigation on the entire network of international waterways of the Republic of Serbia means the development of inland waterway transport for the needs of inland vessels large capacity ships, river-maritime ships, containers and other specialized types of vessels.

Widespread use of advanced services provided by the RIS (River Information Services) could raise the level of safety and efficiency of inland waterway transport.

Upgrading the quality of technical maintenance of waterways will be reached after realization of defined priority projects for regular technical maintenance and investment in infrastructure of inland waterways in the Republic of Serbia in the period 2015-2025. It will contribute to fulfillment of requirements of the AGN Agreement in the sense of dimensions of vessels which are laid down for each category of the waterway.

Outcome 4: TRAINING AND EMPLOYMENT IN THE FIELD OF THE WATERBORNE TRANSPORT

On the whole European network of waterways, there is a lack of qualified and professional personnel on inland waterways ships. This problem has been recognized in the institutions and river companies in the whole Europe. Based on joint projects, especially cooperation in the framework of the river commissions such as the Central Commission for the Navigation of the Rhine, the Danube Commission and the International Sava River Commission. Republic of Serbia has a considerable capacity for training, retraining and lifelong learning in a variety of industries, including the water traffic. The aim is to recognize the Republic of Serbia by the EU side, as prosperity country in waterborne education field.

Improved curricula in order to comply with market needs of river transport will be carried out with the active participation and contribution of the Republic of Serbia.

Outcome 5: DEVELOPMENT OF MARITIME ECONOMY OF THE REPUBLIC OF SERBIA

The aim is to raise awareness about the importance of the maritime industry and related industries for development and raising the general level of competitiveness of the Republic of Serbia. This means adopting a comprehensive and modern legislative, as well as taxes and overall financial framework for conducting activities that are part of the maritime economy. Also, it means creation and maintenance of all business conditions of maritime companies and industries. The Republic of Serbia can be recognised as a country with competitive conditions for business of naval ship-owning and management companies. In this regard, the nationals of the Republic of Serbia will be educated and requested sailors whose education is in line with international and European standards and requirements.

Methodology

The overall process for developing the Development Strategy of Water Transport of the Republic of Serbia from 2015 to 2025 is set out:

- I Define Strategic Objectives
- II Problem Definition
- III Operational Objectives
- IV Specific interventions
- V Assessment
- VI Develop an Action Plan of the Strategy

I Strategic Objectives are defined by the Government of the Republic of Serbia. They are defined also within the Development Strategy on Waterborne Transport of the Republic of Serbia 2015 – 2025, primarily taking into account the EU Strategy for the Danube Region within the priority areas 1a EU Strategy for the Danube Region – "to improve mobility and multimodality": Inland waterways. In its strategic orientation the Republic of Serbia paid attention primarily to international legal framework of inland navigation on the Danube, Sava and Tisa, which includes mandatory application of the provisions of ratified international conventions and agreements. Also, the Strategy took into account the regulations of the European Union in the field of water transport, the international legal framework of maritime navigation and existing and planned legislative framework of the Republic of Serbia in the field of water transport.

II Problem Definition is the outcome of a diagnostic of the transport system. It has identified underlying causes which are responsible for the manifestation of problems, as well as identifying the problems at a spatial level, so that specific objectives and interventions can be identified.

III Operational Objectives are related to the specific problems which have been identified, and they are a subset of the Strategic Objectives.

IV Specific interventions will be address to the operational objectives and problems.

V Consideration and appraisal for each outcome has been given through SWOT analysis.

VI Develop an Action Plan of the Strategy - Action plan is a separate document which will define more precise information on financial effects of strategic measures identified in this Strategy. It is like that, for the Strategy actually defines the frameworks of strategic measures.

Objective setting

Establishing objectives is fundamental for development of any strategy or project. The objectives are focused to the appraisal and outcomes of the Strategy. Furthermore, the objectives are central to the monitoring and evaluation required during the implementation stage.

The strategic objectives of the Government mean clear and concise goals and Strategy delivers it. They represent overall aims and objectives of the Ministry responsible for transport.

The determining factor for projects and policies in the strategy is a national need and availability of funding is an important determinant of prioritisation and programming.

The concept of high-level and operational objectives, which are defined following the thorough assessment of problems, provides a hierarchy of objectives. This structure clarifies the logic of the intervention and provides a framework for future appraisal and evaluation. The appraisal process for the Strategy can be considered through, such as:

High level or strategic objectives – economic development of the country at project level, to aid the development of the Trans-European Transport Network. These are generally objectives which returns benefits or profit, but not always in a direct manner, and

Operational objectives – derived from the detailed examination of problems. They are specific to a corridor or transport nodes (such as port), and allowing the interventions which are designed in a precise way to meet the objectives.

The setting of objectives implies a commitment to follow them through in actions and projects. There may be legitimate reasons for slower than desired or planned progress in implementation, but defined transport projects or strategic goals in the Strategy should be the achieved.

The High-Level Objectives for the Master Plan are summarised below:

Economic Efficiency: the transport system should be cost-effective and efficient, as far as the transport operators and users themselves are concerned. Specifically, the benefits from investments in transport should exceed the cost of investments.

Sustainability: the transport system must be economically, financially and environmentally sustainable. The sustainable modes of transport, such as inland waterway, are more energy efficient and have lower emissions and should be developed as a priority. Each activity from this moment should not threaten any possible development in the future.

Safety: investment in inland waterway transport should produce a safer transport system.

Environmental Impact: Transport investment should minimize negative impact on the physical environment and/or provide adequate compensation measures.

Economic Development: the transport system should be configured to enable economic development nationally, regionally and locally.

Funding: Availability of EU funds will improve potential for implementation of prioritized projects. The overall programme will have to be within realistic estimate of national and other funds over the plan period.

Identifying the Problems and Defining the Interventions

Problem identification provides a basis for developing the operational objectives which in turn form a framework for the appraisal of measures for improving the current state of inland waterways. This step in the process is designed to provide an understanding of the need for a transport intervention and to provide strong input into the setting of objectives through identifying existing and potential problems on inland waterways, as well as opportunities and constraints.

Several sources of information have been used to support problem analysis, including:

- Statistical data on current network operations;
- Modelling of current inland waterway network performance;
- Forecasting of future year transport demand and network performance; and
- Consultations with key stakeholders.

Responsibility and commitment of all relevant ministries and other governmental agencies and organizations is crucial for the implementation of this Strategy. Especially the Ministry of Construction, Transport and Infrastructure should promote measures necessary for the implementation of this strategy and establishes mechanisms for its implementation subsequently monitoring, evaluation and review.

The Action Plan will treat each strategic measure and determines the appropriate actions for implementation, their holders and participants in the implementation, as well as the manner of implementation and funding sources. The Action Plan will establish the obligation of state authorities and organizations in accordance with the law established by the authority having jurisdiction in the area of waterborne transport, as well as bodies and institutions whose competences may have an impact on the development of this branch of transport. Furthermore, the Action Plan will establish in detail the dynamics of enforcement measures, as well as a way to manage risks in the process of achieving specific and strategic objectives of the Strategy. Ministry of Construction, Transport and Infrastructure is responsible for implementing and achieving the goals set by the Strategy, as well as for activities that will be identified in the Action Plan. This ministry will periodically, every two years, report to the Government on the implementation of the Strategy and Action Plan. The basis for monitoring the implementation of strategic objectives provides results of indicators identified for each objective of the Strategy.

Opportunities

General population is not sufficiently informed of the fact that with a relatively small investment in the infrastructure of waterways and their connection to the national network of road and rail traffic at the key points of trimodal spot, manifold ways improves the strategic position of the Republic of Serbia. By establishing a new network of European corridors, waterway Danube in Serbia, with a length of 588 km, together with its navigable tributaries and potential of ports and harbors, is gaining in importance within the overall European transport policy in the period 2014-2020. New European policy opens significant opportunities for better positioning and development of waterway transport in the Republic of Serbia, which the Strategy envisages for the period from 2015 to 2025.

Better visibility of the waterway transport and increase awareness of its importance can be achieved by 2015:

- linking the information on water traffic with information about the activities of other modes of transport,
- providing information on waterways traffic as transport mode that is not competitive neither to road nor rail, but as the optimal complement to the overall transport networks of the Republic of Serbia in accordance with the new European policy;
- providing information on the ports as an ideal point of connection of the three main modes of transport;
- identification of the types of goods, its forms, place of origin and end flows of goods and applied aspects of traffic, directions and distances of movement;
- Analysis of the logistics infrastructure in the catchment area;
- Coordinated and concerted participation of representatives of relevant state institutions, economy, science and education to the public at national and international conferences dealing with the theme of water and multimodal transport;

- promotion of the regular activities of national clusters - a good example of the organization's newly Serbian water cluster and slightly older cluster of transport and logistics Vojvodina; of the newly established Serbian water clusters are expected activities on the creation and implementation of projects of interest for the development of water transport and to strengthen the competitiveness of enterprises in the field of water transport and logistics;

- Public presentation and publication of the policy documents and legislation in the field of water transport;

- supporting and promoting of EU projects related to waterways and multimodal transport in the Republic of Serbia and the region;

- Active participation in the work of the Danube Commission and the Sava Commission

- Promotion of contemporary curriculum of education, qualification and training in water traffic;

- exploiting the possibilities of e-learning in the field of education;

- supporting the organizations of sailing school, student, educational, environmental and experimental vessels;

- supporting tourism activities and development of a network of the passengers port - as a good example is a cruise on the Danube;

- supporting plans of local governments in the development of nautical tourism, construction of the harbour, small marina and marina;

Current and Future Transport Related Problems

Recent analysis of the state of waterway transport at all levels of the state administration and according to all available indicators is pointed on the final stages of the crisis in the industry. Due to the poor conditions of the shipbuilding industry, primarily in the territory of AP Vojvodina, the problems are manifested in declining of water transport. It is pointed to the increasingly difficult business in the field of shipbuilding and delay in the development of the domestic fleet and port infrastructure. It lasted for a decade and resulted in the redirection of cargo to road transport, with a complete absence of combined multimodal transport, as the most functional transport model.

In connection with the "Transport policy" it refers to the rules of competition and social conditions. Legislation of the Republic of Serbia has not recognize the application of the "new for old" on inland waterways, but EU rules allow each Member State within its own national legislation and administrative resources to support the Fund inland waterways that can organize economic operators to modernize fleet under the Serbian flag.

The development of container transport on the Danube River has been considered for a long time only as a promising possibility. Realization of container transport on the middle and lower Danube, connecting the Republic of Serbia with the big Western European and Black Sea markets is delayed and currently does not provide adequate results. For development of transport the containers are the main factor, and they should meet the technical parameters for the appropriate category, modern container terminals and terminals connections with appropriate modes of transport.

Ports should be viewed as a trimodal point, the comprehensive road and rail networks of the Republic of Serbia associated with the European TEN-T Corridor Rhine-Danube. The low traffic in ports is caused by insufficient revenue and thus insufficient opportunities for modernization and maintenance of port infrastructure. Ports on the local rivers are mostly equipped with standard coastal crane on rails and/or coastal mobile cranes. The association of port rail traffic does not exist or it is insufficiently developed. It is also necessary to analyze the existing port anchorages, or determining their position and size, as some have defined port anchorage. The legal status of ports and their management is governed by the provisions of the Law on Navigation and Ports on Inland Waters. Part of this Law regulates ports based on comparative and global economic trends applied in all countries with developed transport by waterways, and it is reflected in the fundamental principle that ports and harbors are of public interest and as such, their port areas are in public ownership. Ports in the Republic of Serbia do not fulfill their primary role as the driver of economic development in the region. The Republic of Serbia is characterized by relatively poor state of port infrastructure, while port superstructure is obsolete and the moving operations are of low quality, such as productivity, efficiency, long-term increases costs for users and service providers. In the ports and harbors of the Republic of Serbia intermodal transport units is negligible.

It is essential that the documents of spatial and urban planning, especially in strategic and development documents of local Governments in the period 2015-2025, consistently apply strategic goals of the Republic of Serbia for the expansion of port areas wherever possible.

In terms of waterway infrastructure, the main problem is related to the evident lack of continuous technical maintenance, as a result of decades of neglect of this economic sector in terms of insufficient allocation of financial resources. The result of this approach is the partial utilization of the waterway in relation to the available capacity that threatens to turn into a permanent condition and thus jeopardize the strategic position of the Republic of Serbia on these rivers. Reliability, as another important consequence of the physical condition of the waterway is a crucial factor in the modal choice. It is particularly vulnerable during periods of low water levels that occurs periodically. During these periods of year the navigation is temporarily, partially or fully disabled in such critical sectors. Extreme fluctuations in water levels, combined with the effects of climate change, will have a significant stake in the future scope of activities and thus the cost of maintaining the infrastructure of the waterways.

Prioritisation in Actions and Project activities

Within the framework of the Strategy is proposed the growth scenario of total amount of transported cargo on inland waterways. The script is based on the basic macroeconomic indicators of economic activity - the percentage of growth of real gross domestic product (GDP) of the Republic of Serbia.

In order to allow rapid adaptation to modern business conditions, improve the safety of navigation and raise environmental awareness of all participants in waterway transport, the shipping company should take care of:

- Regular ongoing maintenance;
- Mandatory vessel overhaul;
- Maintaining the necessary ships equipment;
- Withdrawal and removal of old and inactive vessels;
- Disposal the ship waste on defined waste collection stations.

Bearing in mind the traffic forecast, it is necessary to support the development of river fleet in the period from 2015 to 2025, which includes:

- Renewal of existing vessels and related equipment,
- Ban on import of vessels older than 25 years;
- Acquisition or construction of new vessels;
- Purchase and installation of equipment for the use of RIS;
- Strategic orientation of the company (specialization) - international / domestic traffic (according to the type of cargo).

Strategic orientation of shipping companies should be directed to:

- Participation in international traffic (import and export) especially in the countries of the region;
- Development of inland traffic (Danube, Sava, Tisa and canal network DTD); in the framework of the internal transport planning transportation of dangerous goods between internal (domestic) ports, as well as transport of bulk cargo;
- Participation in combined transport.

Domestic or foreign investment in domestic tanker fleet in a very short period of time, from 2015 is necessary if we want to keep the existing transport volume of liquid cargo. It could be increased in line with the forecasted quantities in the period from 2015 to 2025 taking into account the European plans to transfer part of the transport of dangerous goods on inland waterways. According to plan, only after five years of implementation of the modernization program, could be predictable further investments in increasing the number of vessels in accordance with anticipated growth of waterway transport freight until 2025 in the Republic of Serbia.

Strategic objectives for the development of the economic potential of ports and docks will be achieved by:

- ensuring a realization of public character of ports and port services available to all users, and exclusion of discrimination;

- prescribing the conditions that ports and harbors must fulfill, in accordance with what Regulation 1315/2013 / EU;
- strengthening of market competition by creating legal conditions for the introduction of new port operators on the domestic market through a system of approval or port concessions,
- Introduction of clear rules in the field of state aid for the construction of port infrastructure;
- ensuring high standards of safety and environmental protection in ports;

In order to solve the problems identified in the port system of the Republic of Serbia, it is necessary to undertake the following:

- balance the needs of investment in port infrastructure and financial capabilities of the state
- port areas to spread primarily on land in public ownership;
- provide flexibility in defining the port fees, as well as the terms and conditions for granting approval for the performance of port activities;
- make unique control procedures and monitoring of port operators and establish a unified system of administration and port management;
- integrate ports into the system of River Information Services.

Quality of port services largely depends on development and maintenance of internal waterways and port infrastructure. In the construction of new ports infrastructure it is necessary to pay special attention to technological dimensioning, applying of technical solutions, construction phasing, and the effectiveness of investments and other.

The construction, equipment, current and investment maintenance of port superstructure, means controlling of operation of port operators.

It is attainable and realistic goal, to advance the state of the waterways in the period from 2015 to 2025, namely creation of the conditions to safer waterway traffic, more reliable and more efficient transport mode, with respect modern environmental standards in the planning and design.

Waterways can be integrated into a multimodal network to a comprehensive network of roads and railways at the national level effectively connected with the TEN-T Corridor Rhine-Danube. It is necessary to execute river training and dredging works on critical sectors of the Danube River from Belgrade to Backa Palanka, as well as on the SRB-CRO common stretch of the River, in order to eliminate identified "bottlenecks" and thus achieve significant improvement of safety of navigation. It is also necessary to continue with regular maintenance and creating a prerequisite for the use of the full potential of the Serbian part of the Danube, or its full integration into the European corridor Rhine-Danube, but by the end of 2017. Also, to continue with all activities initiated on the preparation of project documentation for the removal of "bottlenecks" for navigation on the Sava River.

Winter ports and shelters require great financial investments. Keeping in mind the current economic situation, it is necessary in the short term to prescribe the conditions to be met by winter ports, in the case of ice and other emergency situations.

Full implementation of RIS on the entire length of the Tisza River through the Republic of Serbia should be performed. It is necessary for the Republic of Serbia to establish vessel traffic system (VTS), as it is available wide across Europe.

Overall Strategy

New infrastructure EU policy, if viewed as a whole, the existing fragmented European network of roads, railways, rivers and canals, air, sea and river ports will be converted into a single Trans-European Transport Network (TEN-T). It is a way to deliver growth and competitiveness to the economy.

Development Corridor through general guidelines involves an analysis of the corridors and making plans on the basis of organized forums of stakeholders that would be adopted by each state and at the end of the implementation itself. The new road network will support a comprehensive network that will be included in the basic network at regional and national level. This will ensure the availability of all regions and complete coverage of the EU. In current European politics the Danube River was a priority corridor for itself, but limited as a waterway. Now, corridor Rhine-Danube forms the unique system of waterways, and connects important rail and road junction of Central and Southeast Europe with the industrial centers of Germany and France. With this

approach, it will be possible to link and integrate transport infrastructure, including ports to remove technical and administrative barriers to multimodal transport and free flow of information.

New European policy open significant opportunities for better positioning and development of water transport in the Republic of Serbia, which provides for the Strategy for the period 2015-2025. All activities relating to water transport are grouped according to the competencies through the Law on Navigation and Ports on Inland Waters, the Law on Maritime Navigation and the Law on the Transport of Dangerous Goods. Existing national institutional framework in the field of water transport can be considered satisfactory. The purpose of the full implementation of the international legal framework in the field of water transport and concordance of national legislation with the EU regulations in the period 2015 - 2025. It is necessary to strengthen the professional potential within the current administration, with a greater emphasis on professional development and increasing the number of employed experts in accordance with the needs of the application of modern legislation in the field of navigation. The important element in achieving the objectives of the Strategy is the cooperation of the competent authorities in the harmonization of national regulations and administrative procedures on the waterways of the Republic of Serbia on the model of the surrounding EU Danube countries.

Strengthening the administrative capacity and cooperation of all relevant institutions and organizations in the field of construction, transport, infrastructure, water management and environmental protection is imperative for good project planning of river infrastructure and the development of water transport in the Republic of Serbia.

Forecast of inland waterways traffic was made on the assumption that the annual total turnover follow the percentage change in real gross domestic product (GDP) in the Republic of Serbia. The increase in real GDP is taken from information provided by the International Monetary Fund (IMF).

Based on the adopted methodology it can be concluded that an increase in the volume of traffic on the inland waterways of the Republic of Serbia (domestic transport, import and export) could be 12.5% until 2020 and 36.9% until 2025 compared to the traffic volume in 2012.

Research during the development of the Strategy bring to the conclusion that the real achievement of the basic objective of the increasing the volume of transport on inland waterways of the Republic of Serbia in 2025 to 36.9% compared to the year 2012.

Executive Summary of the Environmental Report for the Development Strategy on Waterborne Transport of the Republic of Serbia, 2015-2025

The requirement to carry out a Strategic Environmental Assessment (SEA) is based on the Article 18 of the Law on Strategic Environmental Impact Assessment of the Republic of Serbia: Ministry of Agriculture and Environmental Protection, Republic of Serbia assessment of the effects of certain plans and programmes. The assessment object of the SEA is development of water transport of the Republic of Serbia from 2015 to 2025. The SEA of the development of water transport of the Republic of Serbia from 2015 to 2025 is planned and carried out in line with the relevant Directives and the national legislations.

The SEA process started in parallel with the Draft Strategy, and the purpose is to identify potential significant potential significant impacts and propose guidelines and prevention measures, measures to prevent and eliminate potentially negative impacts, measures to increase the positive effects of protection and environmental monitoring.

The environmental situation analysis is to be prepared regarding all environmental issues identified. The identified environmental issues are water (surface waters, ground water), soil and geological medium, biodiversity, flora, fauna, air and climate change, landscape and cultural heritage, population and human health, energy resources.

The strategy will have positive effect on water quality, hydrology and natural water bodies. Restoring and managing ecological corridors, by targeting large-scale riverine networks will naturally decreases the threat of

floods and vulnerability of water bodies. Disaster prevention and management objectives will support these targets too.

Concerning to objectives of better coordination and the promotion of environmental-friendly transport systems, in the case of river and sea transport water pollution (dredging, waste, ballast waters and oil spills) and adverse effects on hydromorphology (e.g. Changing of flow regime and water level) has to be considered during planing projects.

The aim of the Strategic Environmental Assessment Strategy for the development of water transport of the Republic of Serbia from 2015 to 2025 is to determine the binding, hierarchical agreed guidelines (environmental requirements) and the definition of policies and measures to protect and improve the environment and create conditions for sustainable development of water transport by 2025.

Environmental awareness should be emphasized and is required to be taken into account during the implementation of planing projects. The impact matrix represents the test of the objectives of the Strategy against the SEA objectives, which shows the synergies and inconsistencies.

The key objectives include the following:

- Ensure sustainable water management;
- Ensure conservation, improvement and rational use of surface waters and ground water;
- Control pollution and reduce inputs of nutrients and hazardous substances;
- Reducing organic, nutrient and hazardous substance pollution, prevention and reduction of the impact of diffuse sources and of accidental pollution incidents;
- Improvement of the ecological and chemical status of surface waters and groundwater;
- Prevention from and reduction of flood risks;
- Control ice hazards;
- Improvement of waste water treatment and the reduction of nitrate pollution
- Continuous monitoring of water quality.

The majority of the specific objectives refer to improvement of institutional and infrastructural framework conditions and policy tools, capacity building, coordination and planning, thus the possible environmental effects of the Strategy will primarily be of indirect nature. Special attention should be paid to objectives and actions linked to improvement of transport system and preparation of strategic investments in regional transport infrastructure, promotion of sustainable freight transport, waterway maintenance and management. Supporting of these actions could lead to an increase in land take, fragmentation of habitats and additional impact through air and noise pollution in sensitive areas. The effective consideration of environmental and possibly other sustainability aspects has to be ensured, also in case of energy planning and coordination actions, in order to avoid negative side-effects of growing green energy utilization (e.g. one-sided biomass production, adverse effects on hydromorphology, noise, negative impact on landscape). Supporting these settlements is suggested only under strict control of and cooperation with authorities.

Formulated specific objectives will contribute to environmental in sence of:

- transnational water management
- restoration of ecological corridors
- sustainability (green transportation, smart and clean energy networks, increasing renewable energy usage and effectiveness of energy use
- improve the preparedness to disaster risk management
- Environmentally-friendly and safe transport systems
- Balanced accessibility of urban and rural areas to TEN-T specific objectives
- improve energy efficiency

The integration of functional ecological networks and green infrastructures by interlinking natural habitats and wildlife corridors, and reducing barriers will improve the state of wild habitats, biodiversity and the threatened species. In case of newly built transport port infrastructures, careful and nature-focused planning might reduce the negative impacts on biodiversity as well as in case of river and sea transport promotion.

Wastes generated on ships include sewage, domestic and operational wastes (garbage) and cargo residues generated during the service of a ship. When ship generated waste is not disposed or delivered legally it contributes to pollution of the rivers and may have adverse effects on ecosystems.

Taking in consideration the main objectives of the Strategy and the characteristics of the region, most important issue of the area is water management, including flood risk prevention and the biodiversity conservation of the Danube river basin. The air and climate issue and the climate change is also a key issue. Water dependent sectors such as agriculture, forestry, navigation and water related energy production are likely to have troubles under the foreseen future conditions. Those areas need improvement in order to create environmentally-friendly transport systems.

The promotion of green infrastructures, sustainable water and natural heritage management, flood risk prevention will improve soil quality and help to maintain the soil's functions. Negative impacts of future transport and energy system implementations can be minimized if environmental awareness is emphasized and required during the implementation phase.

Main results and recommendations

The presumably remarkable impacts of the interventions on the environment have been evaluated and as a result, the proposed measures have been presented as well. Relevant interventions need to be handled in a joint manner, with keeping an eye on the possible effects on the different intervention areas.