

# Socio-Economic impact on identification and financing transport infrastructure projects

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**Abstract:** Transport infrastructure projects are largely complex and are both large in size and in financial value, so they inevitably require an extensive preparation, long time for implementation, great financial means, engagement of a large number of people and companies, institutions, oversight, etc. Diversity of financial resources, manner of implementation, diversity of infrastructure (railways, roads, ports, airports) etc. requires detailed knowledge of the projects to achieve the required objectives. Project identification requires detailed analysis and careful approach in defining objectives, volume of activities, funding, etc. The impact of projects on other sectors is different and this should be taken into account when identifying and preparing the project. Some (larger) projects have financial, socio-economic and social impact as well as environmental impact. All of this can have an impact on the overall social relations and the situation in the country or region. The selection of projects of such great magnitude is intensive and important, so often additional special estimates are applied based on economic and other data, in order to avoid all unwanted consequences.

**Keywords:** project, infrastructure, transportation, project identification, ten-t network, financing, highway

## 1. INTRODUCTION

Transport is vital for the European economy and without a proper road infrastructure, Europe will not develop. The new EU infrastructure policy will create a strong European transport network for 28 member states, and will consistently boost growth and competitiveness. It will link the East to the West and it will replace today's transport chaos with an integrated European network.

The new EU infrastructure policy is tripling EU funding to EUR 26 billion for transport over the period 2014-2020 (compared to EUR 8 billion for 2007-2013), under the new Connecting Europe Facility (CEF) [1]. This is the first tranche of the new funding for transport to be made available. The core network will be the backbone for transport in Europe's united and single market. The current barriers and difficulties in the mobility of people and goods will be removed and at the same time the infrastructure will be improved and cross-border transport operations for travellers and businesses across the EU will be restructured.

The new core TEN-T network will be supported by a comprehensive network of routes, feeding into the core network at regional and national level. The aim is to ensure that progressively, and by 2050, the great majority of Europe's citizens and businesses will be no more than 30 minutes' travel time from this comprehensive network [2].

The geographic position of Kosovo is an important factor for connection between states, corridors, connection between the Adriatic Sea and the Black Sea.

Kosovo is linked through Route 6 and 7 with important roads and corridors in the Balkans, it links Pan-European corridors with centres and sea ports in the Balkans region (FIGURE 1).

Kosovo has a geographic position that is bordered by two Pan-European corridors:

- Corridor X
- Corridor VII

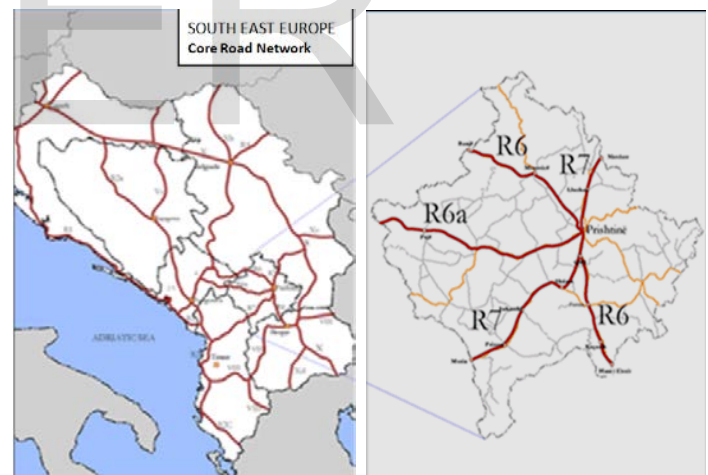


Figure 1. Route 6, 6a and 7 linking the Republic of Kosovo with Pan-European Corridor

**R6 and R7 Highways** are part of the South East Europe Transport Network, and these roads are the main links with neighbouring capitals and the regional transport network in Southeast Europe. At the same time, they link some of the main cities and economic centres within Kosovo.

Funding of these roads, due to the very high costs of this particular infrastructure, always represent a major challenge for the Republic of Kosovo.

## 2. IDENTIFICATION OF TRANSPORT INFRASTRUCTURE PROJECTS

Project identification represents the initial phase, in which the main problems, objectives and global features of the project are explored and identified. The level of research and decision making is variable and depends on whether the project (project idea) is interrelated or is not interrelated to investment programs and the development strategy approved by the government. Identification of infrastructure projects goes through two phases:

- *First Phase* - provides the basis for identifying effectiveness, funding access, instruments and tools that may expand funding options available for infrastructure projects and may diversify the investors' base, potentially by reducing the cost of funding and increasing funding availability in the infrastructure sectors or regions where investment gaps may exist.
- *Second phase* - identifies the range of public and private risk mitigation incentives and means that may encourage mobilization of infrastructure funding.

When a project is part of programmatic and strategic documents, experience shows that this (identification) phase is much simpler. In this case, the project analysis and identification can start immediately, without prior research, project definition, decision-making, etc. The co-ordination of the investor and the financier (bank) is possible and is necessary from the inception phase of the project in order to identify altogether the problems, objectives, activities and benefits of the project. This coordination enhances the experience, does not overlap the activities, enhances the collective work, provides information on programs, strategies, etc. Many financiers based on their rules of procedure are obliged to support investors, especially when it comes to less-experienced investors (countries). This support is needed from the level of development of their plans and programs, and the methods for advancing the projects. When it comes to identifying the project, as a part of the joint work of the bank and the investor, from the very beginning of the project, the ad hoc identification of the project serves as a basic document which will be analysed and advanced in the coming phases. This analysis contains answers to many questions, and the most important are: country development opportunities, development plans, credit opportunities, project benefits and so on and so forth.

The initial analysis presents the basis for further cooperation between the Bank and lenders in the development of the strategy, which includes the sector's policy and institutional changes. The purpose of the cooperation is to achieve full compliance between the Bank and the lenders in relation to the essential elements of which the most important are: the (technical and economic) feasibility of the project, achievement of sector objectives, support of the development strategy, proper benefit-cost ratio of the project etc. [3]. This

compliance is not achieved so easily and there is often a range of dilemmas and ambiguities between the bank and the lender, therefore additional efforts are needed for providing proofs and clarifications. The most common problems arise in terms of different views on reform of institutions, project implementation timing, existing status analysis, and so on and so forth. All problems are ultimately resolved, because the interest in implementing the project is mutual.

If projects are not covered with strategic and programmatic documents, then identification of the project is more complicated and commences with analysing and defining the problems in the sector as well as determining the way of problem-solving. At this phase of work, the following should be done:

- baseline analysis,
- problem/necessary identification,
- problem analysis,
- priority/subject matter issue,
- personal decision for project selection / problem-solving phase,
- defining the project idea,
- consultation with the impartial/neutral parties,
- defining all the objectives.

As it can be seen, the initial activity is related to the baseline analysis, which is negatively presented, while the analysis of the objectives in the future desired situation is positively presented. This finding shows that the transformation of current problems needs to be done in future objectives. In this way, we can achieve the common goals of the project that we want to identify [4].

This approach is very simple and efficient and is based on the following reasons which are acceptable:

- determination / verification / orientation of action,
- focus on results,
- facilitation of completion/implementation of plans,
- priority and organization of work,
- motivation of staff,
- presentation of the project goal,
- facilitating the recognition of success.

In identifying the project, the definition of the necessary objectives is the most important thing, depending on the type of project, they can be:

- strategic and operational,
- technical and procedural,
- open and secret,
- long-term, mid-term and short-term.

In the first phase (of identification) it is important to determine the project implementation carrier. Often the question arises as to which sector: whether public or private

entity should be nominated as project carrier. The reason for such matter are many, because the advantages and disadvantages of one or the other are interrelated. Without going into detailed analysis it can be noticed that the private sector is faster, more efficient, more rational, more business-oriented, more economical than the public, which is often bureaucratic, inefficient, unmotivated, etc. Transport infrastructure projects, regardless of abovementioned, cannot be carried out without the support and participation of public sector, even though it does not appear as a direct project carrier. In the less developed economies, the public sector is still dominant and projects are carried out in traditional manner.

There are several approaches (methods) for project identification and is always aimed the approach that provides greater security that the desired results will be achieved within the given activities. The "logical framework" instrument from the project cycle management (PCM) methods is the most appropriate and provides a range of security elements for a good future of the project. At this stage, through this method is achieved the design of a sustainable and real project. The approach is analytical with detailed classifications and analysis of assumptions that are fully used for decision-making, design and evaluation of the project. The implementation of the "logical framework" is at the early stage of the process of identifying and modifying the objectives, activities, preparation, project evaluation, and so on.

### 3. FINANCING THE TRANSPORT INFRASTRUCTURE PROJECTS

Financing of large infrastructure projects through possible sources of funding is undoubtedly one of the European Union's (EU) priorities. Infrastructure projects often have higher levels of leverage than non-infrastructure investments, given the less volatile monetary flows and willingness of sponsors to accept higher levels of debt in infrastructure projects [5]. Debt instruments have historically accounted for 70-90% of total capital in infrastructure projects (Figure 2).

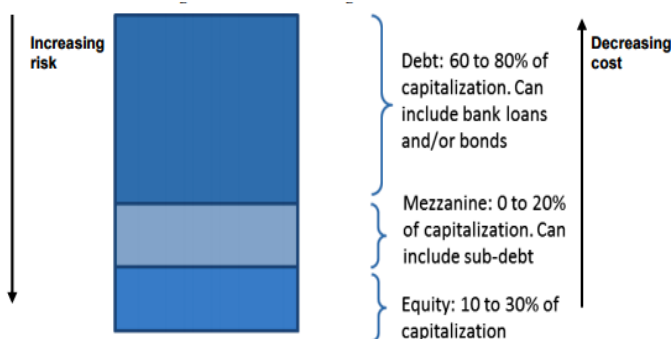


Figure 2. Financing Instruments.

Various forms for financing infrastructure projects are already known in the world, for example through donations, loans, borrowing, financing through the use of PPPs (public-

private partnerships) with particular emphasis on advantages and disadvantages of the financial system - PPP etc. In Kosovo, within the government of the country, respectively the Ministry of Finance operates the Public Private Partnership Committee, which aims to promote and facilitate the implementation of this partnership in many sectors of the economy in order to provide infrastructure and public services more efficiently and with lower cost.

Kosovo, but also the countries of the region aspire to join the EU and are engaged in developing their own national road network in relation to EU-approved plans, such as the Trans-European Transport Network (TEN-T) development plans by 2020. EU transport development plans call for the development and improvement of multi-modal corridors to accommodate foreseen growth in transport (such as foreseen growth in freight transport for more than 2/3 until 2020), and reducing the traffic flow density. The Feasibility Study for Facilitating Infrastructure for the Western Balkans [5] is undoubtedly a powerful contribution to the further development of road infrastructure throughout the region. Within these major investments in the region, Kosovo's future is secure only if the government pledges to protect the environment as well as cultural and natural values while respecting and complying with international standards and recommendations in prudent and rational utilization of the necessary spaces for construction of the road network.

Authors Doll and Essen (2008) [7] have published an important study about the highway construction costs in eight European countries, Austria is the country with the highest cost of road construction. The report shows that the cost of constructing highways in Austria for one kilometre is on average around EUR 13 million. After Austria is Hungary, with over EUR 11 million per kilometre, followed by Slovakia with about EUR 10 million per kilometre, and the Czech Republic with EUR 9 million per kilometre. On the other hand, in Denmark, the average highway construction cost is only about EUR 6 million per kilometre. Croatia and Slovenia are ranked higher at a cost of about EUR 7 million per kilometre, whereas in Germany the average highway construction cost is about EUR 8 million per kilometre.

According to [7], mountainous terrain usually increases the cost of building the highways, and as a result, the cost of construction can go up to EUR 26 million per kilometre, as is the case with Germany, or about EUR 25 million per kilometre in the case of Austria.

Financing these roads, due to the very high costs of this particular infrastructure, always poses a major challenge for the Republic of Kosovo.

**Highway R6:** Road Prishtina - Bllacë (the border with the former Yugoslav Republic of Macedonia) is about 75 km long and costs 630 million euros. It forms a part of E65, and it is the second highway in Kosovo and connects the capital city Prishtina with the Macedonian border in Hani i Elezit, which is about 20 km from Skopje and the road Prishtina - Airport - Peja - border with Montenegro which is about 120 km long.

**Highway R7:** Road Vërmica (border with Albania) - Prishtina - Merdare (administrative border with Serbia) over 120 km long at a cost of 830 million euros. After finalizing and completing the remaining project Prishtina-Merdare, the highway will connect Kosovo via the E80 highway with pan-European corridor in Nish (Serbia).

Highway R 7.1 is a planned highway in Kosovo. It is 47.1 kilometres long and is foreseen to cost about 260 million euros. The highway connects the capital city Prishtina with the Serbian border in "Dheu i Bardhë". The highway is also known as Prishtina-Konçul highway or Prishtina-Gjilan highway.

#### 4. SOCIO-ECONOMIC IMPACT OF TRANSPORT INFRASTRUCTURE PROJECTS

The assessment of the socio-economic impact of infrastructure capital projects focuses on the greatest impacts, the distribution of direct economic benefits and economic costs as well as in both beneficial and disadvantaged social impacts, including re-systematization.

The analysis should identify groups of beneficiaries by type and/or cost of impact and note when the costs and benefits have occurred. Estimators should emphasize the poor, gender mix, ethnic minorities and/or low social class, and other marginalized and/or endangered groups. If there is information, indirect or second-order impacts, it should be described such as opening of workshops and restaurants near new roads. From the perspective of poverty reduction, generation of sustainable job opportunities is important. In addition, this section focuses on any specific measure involved in a project to achieve useful social impacts or to mitigate project impacts among disadvantaged groups, for example, relocation of families and businesses displaced by infrastructure projects. Other undesirable social impacts may include an increase in the occurrence of trafficking in human beings, use of child labour, and so on. Where possible, it should be discussed the impact of the project on the development of the private sector in terms of backward lines and/or future plans as well as opportunities created or lost for the private sector.

#### 5. CONCLUSIONS

- The expectation of continued growth of investment in transport infrastructure highlights the current difficulties in preparation and implementation of projects. If the governments and investors are to provide good projects and realize socio-economic and financial returns, they should continue to improve the method for preparing and submitting the projects.
- Transport projects tend to be more complex than those in other sectors, often because they involve more stakeholders and because they are not independent and include the inclusion of a range of various systems.
- Project preparation is key to successful delivery of a

nation's infrastructure needs. This preparation should start at the level of national strategy and include a review of the needs of the nation from the perspective of infrastructure.

- Such a study will help to identify the individual projects needed to meet national economic goals and ensure a coordinated approach rather than an ad-hoc approach towards infrastructure development.

At the same time, it is important that the proper legislative, judicial, institutional, financial, fiduciary and technical frameworks are in place. This includes learning additional skills, monitoring the institutions such as the Ministry of Finance, adoption of laws that allow private participation, and the establishment of a regulatory framework for any industry that allows long-term pricing security for prospective investors.

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