# THE EUROPEAN TRANSPORT SYSTEM AS PROMOTER OF SOCIAL RESPONSIBILITY AND ENVIRONMENTAL PROTECTION

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#### **Abstract**

Social responsibility has become one of the most important issues in today's world, because more and more institutions trying to integrate social responsibility and environmental concerns in the daily activities. Consequently, the movement is spreading over the world and citizens preference for social responsibility, in order to increase awareness of sustainability issues, and because of the impact of social responsibility on the overall community.

Therefore, the aim of this paper is to examine the extent to which social responsibility is presented today. This primarily refers to the impact of transport and environmental concern to which is European Union firmly committed. Considering Croatia soon accession to the European Union it will be discussed how the application of European standards in the field of transport affected Croatia and how it responded to this change. That area of consideration will be substantiated by survey results, conducted at the University of Applied Sciences of Slavonski Brod, direction Management.

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#### 1 Introduction

Social responsibility has become one of the most important issues in today's world because of that this paper examines the extent to which social responsibility is presented today. This primarily refers to the impact of transport and environmental concern to which is European Union firmly committed. Considering Croatia soon accession to the European Union it will be discussed how the application of European standards in the field of transport affected Croatia and how it responded to this change.

# 2 Social responsibility

All those who want to survive and exist in the 21st century and thereby make a profit can no operate without any concerns for the impact they have on surroundings. If they want to be accepted on the market, they have to be more socially responsible. The concept of social responsibility is closely linked with the concept of sustainable development. "Sustainable development is the development that satisfies the needs of today, without jeopardizing the needs of future generations." (Strategy for Sustainable Development of the Republic of Croatia, the Environmental Protection Act, OG 110/07) It involves working with employees, their families, the local community and society at large to improve quality of life. Social responsibility has become very popular topic in recent years. Institutions, enterprises and individuals alike are being held increasingly responsible for their operations, as demand grows for higher standards of social responsibility. Therefore, more of them are beginning to see the values and benefits from setting up strategic social responsibility plans. Social responsibility can be observed from 7 different areas, namely: fundamental principles, mission and values, human resources, human rights, market, environment and social community. This paper will investigate environment.

#### 3 Environment

Environment is surrounding which includes everything from a non-living to a living being. A variety of environmental problems now affect the entire world. In the recent years with population growth, urbanization and economic development, there has been a significant rise in people's concern for the environment. "Environmental protection ensures the complete preservation of environmental quality, preservation of biological and landscape diversity, rational use of natural resources

and energy on the best way for the environment, as the basic condition of healthy life and a basis for sustainable development." (Environmental protection act OG 110/07) Most people are aware and concerned about damage to the environment. They strongly believe that mankind is abusing the planet and that interference with nature may produce disastrous consequences. But there is also widespread optimism that it is not too late to do something about environment and that it is possible to overcome the world's environmental problems if individuals accept responsibility by making simple lifestyle changes. The concept of eco-friendly living is something that all need to understand and practice on a daily basis.

One of the most important dates in environmental history is 1992, when was held the UN conference in Rio de Janiero. The whole world was involved in the discussion on the interdependence of economic development and environmental protection. The result was a new principle, accepted and utilized afterwards, named "sustainable development". This concept was directed on the long-term goals and interlinked the economic, social and environmental aspects of life. Since then the concern for the environment has become an increasingly popular not only for experts, but for the public as well.

#### 3.1 The development of the European transport policy

The environment is one of the most demanding European Union policy areas. Environmental policy of EU does not have a sectorial character like other EU policies. On the contrary, it is a significant part of all the segments of human life. Transport system is one of them. The transport system is one of the most important economic systems of every country. "Transport is a conveying of passengers or goods over a given distance, that is, from a place of embarking/loading to a place of disembarking/unloading." (www.dzs.hr) In European Union increasingly strengthens environmental awareness, but at the other hand the problems created by transport are increasingly coming to expression.

Basic transport policies date back to 1957, when the European Community released the Roman agreement. The main objective was to ensure the movement of goods, services and people. But, in the 21st century transport development strategy of the EU must be based on the needs of society, not only on economic needs. So over the years, the EU has shown a great interest for environmental protection in transport system and since then, the EU has created an impressive number of policy papers related to transport and concern for the environment.

The first major policy document called White Paper, the European Commission produced in 1992 on the future development of the common transport policy. Its target was the opening-up of the transport market. This objective was achieved until 2001 (except in the rail sector). In 2001 European Commission produced its second policy document. It was the White Paper on European Transport policy. "This Paper identified some 60 specific measures to be taken to enable the completion of an integrated market in the following areas: competition, linking up all modes of transport, eliminating barriers, attracting private investors, protecting users of transportation and managing the globalization of transport." (www.myprojectspace.eu) Keep Europe moving - sustainable mobility for our continent from 2006 draws attention to the changes in the context since 2001 - EU enlargement, the acceleration of globalization, international commitments to fighting global warming and rising energy prices. In 2007 the European Commission produced strategy called 'Logistics: Keeping freight moving'. "This paper identified some measures to promote the freight transport logistics, make rail freight more competitive, create a framework which will allow European ports to attract investment for their modernization, put maritime freight transport on an equal footing with other transport modes and review progress made in developing Motorways of the Sea." (http://eacea.ec.europa.eu) After that is produced The Greening transport package in 2008. The aim of this paper is to move transport further towards sustainability. In 2009 European Commission produced two policies. Maritime Transport Strategy 2018 from January presents the main strategic objectives for the European maritime transport system up to 2018. It also identifies core areas where action by the EU will strengthen the competitiveness of the sector while improving its environmental efficiency. Future of Transport from June was the basis for a preparation of a White paper on EU transport policy awaited for 2011. The latest was the White paper from 2011 called Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system. The European Commission adopted a plan of 40 concrete initiatives for the next decade to build a competitive transport system. The aim of the system is by 2050: "No more conventionally-fuelled cars in cities, 40% use of sustainable low carbon fuels in aviation, at least 40% cut in shipping emissions, a 50% shift of medium distance intercity passenger and freight journeys from road to rail and waterborne transport, all of which will contribute to a 60% cut in transport emissions by the middle of the century." (http://ec.europa.eu)

Each of these policy documents contributes to the development of an integrated market in a sustainable way.

# 3.2 Harmonization of EU Legislation on transport system in the Republic of Croatia

Transport is one of a major environment polluting sector. The European objective is through the common legislation to realize a common EU transport policy. As a candidate for EU membership, Croatia has been implementing changes in legislation and implementation of regulation that will significantly affect the community. These changes are necessary for Croatia to meet EU standards and be competitive in order to EU market and the global market. In the process of harmonization, environmental protection is one of the most comprehensive and demanding subject. One of the main strategic objectives of the transport development in Croatia is better environmental protection. Ways to achieve this goal are: "Establishing an efficient protection of the marine environment against pollution from offshore production facilities, implementation of international commitments conventions ADN, ADR and RID, promotion of new environmentally friendly boat, promoting environmental friendly means of transport, equalization of environmental regulations in the countries of the Danube and the Sava river basin." (www.mppi.hr) An important prerequisite for the functioning of the Croatian transport system is in compliance with rigorous European standards, established by international conventions in the framework of international organizations.

Through the ISPA pre-accession instrument financed by the European Commission which assist the candidate countries in their preparations for accession related infrastructure projects in the fields of environment and transport Croatia has from 2005 taken very important investments in order to fully implement all EU legislation on the protection of the environment and achieve standards in environmental protection. The main priorities of the ISPA program were to prepare the accession countries: "meet the candidate with the policy and procedures of the EU, help the candidate countries to catch up with EU environmental standards, expand and link the trans-European transport networks." (www.safu.hr) The EU also promotes major transport infrastructure projects, so-called Trans-European Networks (TENs) in which is Croatia in compliance.

According to notification of the European Commission from 2012 Croatia meets almost the all requirements resulting from the accession negotiations in the area oftransport policy and is expected to be able to implement the acquis by the date of accession.

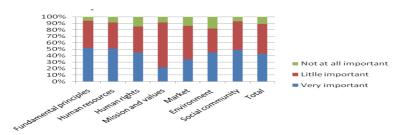
### 4 Social responsibility and the environment

Social responsibility and the environment are closely related what will be demonstrated below. The research has been carried out in the beginning of 2013. Analysis of transport impact on the environment is based on survey conducted at the University of Applied Sciences of Slavonski Brod, direction Management. Altogether 100 students did respond - 81 females and 19 males. Research shows respondent's current knowledge and understanding of the social responsibility and transport impact on the environment.

# 4.1 Areas of great importance for the social responsibility activities of Croatia

Social responsibility area has entered all aspects of modern society. There are a number of factors that make the issue of social responsibility in so far gained weight. Exactly these areas bring many valuable benefits but also problems, in which the institutions must deal with various and even conflicting interests. These areas in recent years gained in its importance and their importance will continue to grow up in the years ahead. Social responsibility defines more equally important dimensions (fundamental principles, human resources, human rights, mission and values, market, environment and social community). The following chart will demonstrate areas which are according to respondents the most important for social responsibility activities in Croatia.

Chart 1. Evaluate which areas are of great importance for the social responsibility activities in Republic of Croatia?



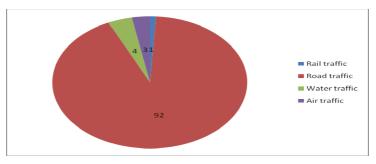
Source: made by authors

Chart 1. shows that approximately 42,5 % of respondents considered listed values very important, about 46,3 % considered little important, while only 11,1 % considered not at all important.

### 4.2 The most negative impact of transport on the environment

Conditioned by the accelerating economic growth and development, the transport in the world as well as in Croatia is rapidly growing which reflects the increasing negative impact on the environment. There is no sector that at least in a small percentage does not negatively affect the environment. The most important types of environmental pollution by type of transport are road traffic, railroad, water traffic and air traffic. The following chart will demonstrate the traffic which according to respondents has the most negative impact on the environment.

Chart 2. Which type of traffic has the greatest negative impact on the environment?



Source: made by authors

Chart 2. shows that approximately 92 % of respondents considered road traffic as the greatest polluters of the environment. The other traffics are presented in a very small percent, only 4% for water traffic, 3% for air traffic, and only 1 % for rail traffic.

Road traffic is the most important source of traffic pollution. It effects on pollution of all components of environment. The most negative impact is emission of harmful gases, noise and vibration, taking farmland and visual relegation area and waste from vehicles. It is known that the road traffic is considered one of the main causes health problems associated with toxic pollutants in the air threatening the human health.

Unlike road, rail traffic impact on the environment is much less. In comparison to other traffics have less harmful emissions, less impact on the flora and anime world. The greatest problem is the noise but still less than the others. Noise Protection in EU is given high attention, primarily in order to achieve the higher quality of life and to protect human health.

Water traffic significantly affects the quality of water and sea. The most negative impact in water systems is existence of a large amount of daily various wastes, such as petroleum, oil derivatives, and various chemicals. A special problem of water traffic in recent years is problem of ballast water.

Air traffic in recent decades is in constant increase. Negative impacts are emissions of greenhouse gases at high altitudes and noise.

Ecological damage caused by the traffic constantly increases. Therefore, today exist various models for minimizing harmful traffic impact on humans and the environment.

## 4.3 The greatest intensity of transport impact on the environment

The expansion of the transport system has produced a number of negative factors that constantly threaten the quality of life. It needs to allocate environmental pollution because of the large harmful emissions, generating large amounts of waste, noise generation, the use of non-renewable resources, the transportation of dangerous substances and petroleum.

Road traffic, compared with the other sectors of the traffic according to chart 2. has the most significant negative impact on the environment. The greatest threat is harmful emissions that impact on global warming, climate change, and therefore the human health.

"Hazardous wastes have the potential to contaminate land, air, and water and negatively affect human health and environmental conditions." (http://cfpub.epa.gov)

Noise particularly affects people causing health problems, psychological and economic impacts. Road traffic has the higher contribute to the load on the environment with noise.

Non-renewable resources are natural resources which cannot be reproduced or replaced. It has caused acid rain and a great increase in carbon dioxide and pollution in the atmosphere.

Transportation of dangerous substances affects the natural, physical, chemical or biological quality of the environment which can damage waterways, marine life and plants and animals on the land.

Petroleum transportation has a number of effects on the environment. "On a basic level, petroleum will damage waterways, marine life and plants and animals on the land. An oil spill can also ruin the infrastructure and economy of a particular area with the long-term effects being felt for decades." (www.ehow.com) Cleaning an oil spill is very expensive.

Because of all this harmful effects on the environment it is given a great attention of its protection. Often are set appropriate measures that should result in reduction or elimination of adverse effects on the environment. Well-defined measures prevent harmful effects on the environment and ensure the prevention of pollution. The following chart will demonstrate which traffic for respondents has the most intensity on the environment.

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

End at all important
Little important
Very important

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Chart 3. The negative impact of transport according to intensity on the environment

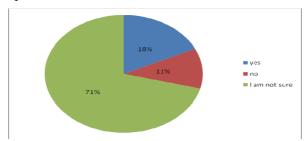
Source: made by authors

Chart 3. shows that approximately 51,6 % of respondents considered listed factors has the most negative impact on environment. About 46,3 % considered that impact little important, while only 14 % considered not at all important. The most negative impact is considered harmful emissions, and the less noise.

#### 4.4 Harmonization of transport system with a European Union

Within the negotiating process for EU accession, the Republic of Croatia committed to harmonize its legislation with the acquis communautaire, among others, obligation of harmonization of transport policies. Because the only way in which Croatia will continuously improve its traffic position is exactly harmonization with the European Union. The following chart will demonstrate what respondents know about harmonization.

Chart 4. Do Republic of Croatia harmonizes its transport policy with the transport policy of the European Union?



Source: made by authors

Chart 4. shows that approximately 71 % of respondents are not sure and don't know did the Republic of Croatia harmonize its transport policies with the transport policy of the European Union. Only 18 % responded affirmatively and 11 % negatively. This indicator shows that people in Croatia are still insufficiently informed of the dimensions, policies and terms and conditions of the European Union.

## **5 Conclusion**

In recent decades, the concept and practice of social responsibility takes significant place. The transport system is one of the most important systems of today and also a significant bearer of economic and social development of any country. Considering the basic purpose of the transport system - connecting people and economic operators, the transport has an international dimension. From the aspect of geographical position and predicted market expansion, Croatia has a good predisposition for attracting international transport routes. In accordance with this the transport system of the Republic is impossible to create independently of the transport system of the EU, especially with regard to the harmonization processes for Croatian accession to the European Union.

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