

Impact of EU and Nationally Funded Bicycle Network Projects on the Quality of Life in Hungarian Cities “Worth the Price or Much Ado about Nothing?”

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1 INTRODUCTION

Negative consequences due to the increasing use of automobiles and the decreasing share of sustainable transportation can be found in scientific publications and felt in our everyday life. Increasing CO₂ emissions, permanent traffic jams, more road accidents, noise pollution, parking problems, reduction of public spaces, etc. are now everyday problems. The mobility of cities appears from time to time in the EU's transport policy. The “White Book”, published in September 2001, presented guidelines for transportation development and regulations as well as transport policy principles of the EU. In 2006, the ‘White book’ was revised and in September 30, 2009 the EU urban mobility action plan was published. In this document, the Committee of the EU recommended concrete actions in order to facilitate urban mobility, make it more eco-friendly and better organized [1]. Cyclists appeared as one of the main targets of the measures in the action plan. In order to reach the above mentioned goals, the development of bicycle networks and services seemed very effective tools. In order to guarantee the implementation of the goals related to the development of bicycle transportation, the EU made financial resources available for the EU Member States, including Hungary. To take advantage of the available funds, tenders had to be made by the Hungarian cities. Proposals for the development of bicycle transport were announced within the framework of the National Regional Operational Programs. The implemented projects and other national and international experiences show how the development of bicycle transport can reduce the automobile transport and its negative consequences. This paper shows impacts of bicycle infrastructure development projects on the quality of life in Hungarian cities; such as increased rate of cyclists in modal-split, fewer traffic accidents and better air quality. Deficiencies are highlighted as well.

2 THE REGIONAL OPERATIONAL PROGRAM (2007-2013)

Hungary is divided into seven regions. This article examines three regions (Central Hungary, Central Transdanubia, Western Transdanubia), with the cities of Budapest, Ajka, Győr, Sopron, and Veszprém and their bicycle transport developments.

The main goal of the Regional Development Programs for bicycle networks were the: development of traffic safety bicycle roads; increasing the number of bicycle trips inland (urban cycle path network elements); building up bicycle-paths outside the urban zone, and implementation of new tourism bike trails [2].

2.1 Impact of bicycle network development projects on traffic safety

In the framework of the operational programs in the three regions, more than 43,087m of inner-city bicycle paths have been built or improved [3]. Presented here are projects including traffic developments of very important bicycle transport routes and their intersections. In order to know the impact of these developments on bicycle transport safety, bicycle accidents were screened (3 years) before and (3 years) after the project development [4].

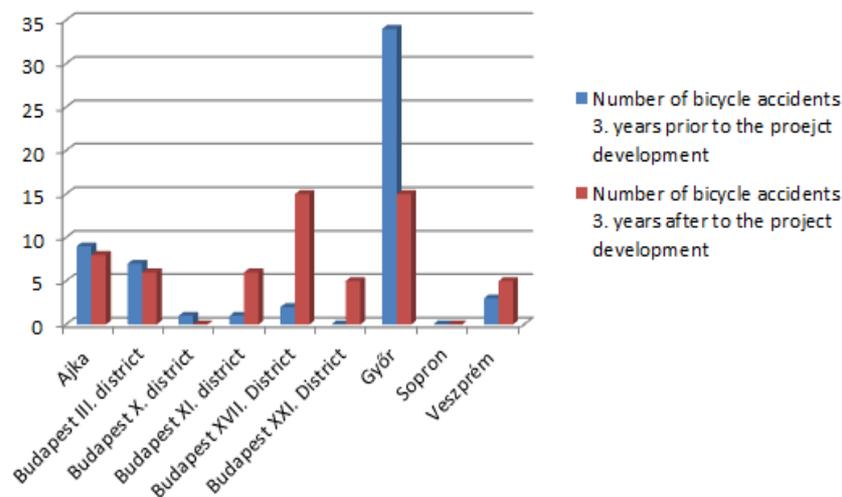


Figure 1: Bicycle accidents before and after the project developments

In the first 3 years after the bicycle road network developments, the number of bicycle traffic accidents decreased in the city of Ajka and Győr and in Budapest III. and X. districts. In Budapest XI., XVII., XXI. districts and in Veszprém the number of bicycle accidents unfortunately increased (figure 1). In Sopron there were not any bicycle accidents in the area covered by the development. The full paper examines in detail the cause of accidents and the infrastructure used during the development.

2.2 Impact of the bicycle network development projects on the modal-split

The number of cyclists in the developed networks also increased. The full paper examines in detail the changes in bicycle traffic volume affected by the road infrastructure development (figure 2).

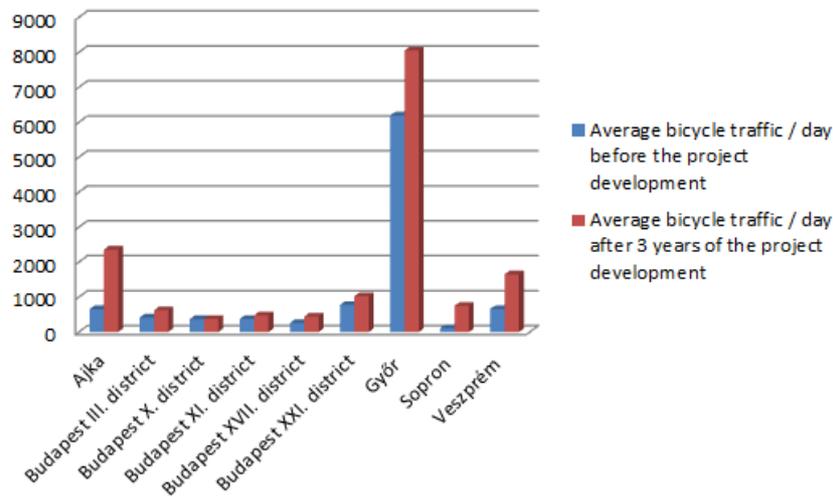


Figure 2: Changes in bicycle traffic volume affected by the road infrastructure development

3 CONCLUSIONS

Cycling developments have a positive effect on life in cities. Developing such networks generate a more positive modal-share of bicycles and help to reduce CO2 emission, noise pollution and improve air quality and other health and environmental aspects. As a result of the bicycle development projects, bicycle use increased. As a result, accident rates were slightly higher in some areas, however in others; better safety measures reduced accidents as well. A detailed examination of the bicycle infrastructure and the circumstances of accidents will help to describe the relationships between the development of road infrastructure and bicycle traffic growth and their effect on accidents. More comprehensive conclusions will be presented in the full paper.

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