

REALISATIONS AND PERFORMANCES OF BIKEWAY INFRASTRUCTURE IN POLAND

Andrzej Zalewski, Ph.D. Eng. Dipl., Assistant Professor

Łódź University of Technology, Faculty of Building, Architecture and Environment Engineering, Poland

/poster session in VeloMondial 2000 Conference - Amsterdam 18.06 - 22.06.2000/

INTRODUCTION - NATIONAL CONTEXT

1/ During the '90 - ies big changes in attitude to bicycle as a transportation and recreational mode in Poland was observed;

2/ In the '80 - ies bicycle was perceived as an element of antisocialism activities and bicycle infrastructure was not generally implemented;

3/ In 2000 bicycle is:

- in vogue as a mode of recreation in all size agglomerations;
- In the small and medium size towns is a important transportation mode;
- alternative to a walk or trip on a crowded bus on a distance up to 5 km.
- style of life and fashion to many young people and students.
- bike is an element of urban and transportation policies and local programs of elections at candidates to different local authorities;

4/ A bicycle in Polish climatic conditions is a seasonal means of transport. The maximum utilisation of bicycle in the period between from May to September;

5/ Park of bicycles in Poland is in level of ca. 300 bicycles per 1000 inhab.; 2/3 bikes in towns is located in 1/3 of richer households /generally equipped with car/;

6/ Nearly 50% of volume of bikes are moderns, multi - gears;

7/ Cost of medium quality model of bike is on the level of one medium month salary in industry, that is too high for many peoples .

8/ Big changes are noted in level motorization, too. Coefficient of individual motorization was grew from 112 car/ 1000 inhab. in 1990 to 260 car/1000 inhab. in 1999;

9/ Utilisation of the bicycle in Polish towns are varied and fluctuates from 0.04 to 0.42 trip/inhab./day dependly of town;

10/ Situation of bicycle safety is very poor:

- streets are very dangerous, because the speed is high and exceed 60km/h - limit in urban areas.
- drivers frequently use the sidewalks as a place to parking and blocked flow of bicycles and pedestrian flow (in Poland parking cars in the sidewalks are authorised!)
- in 1998 were 7000 accidents with cyclists, about 680 people have been killed in the accidents and about 6500 have been injured. These numbers constitute ca. 10% of the total number of killed and 8% injured in road accidents in Poland.
- cyclists are group of high risk of road accident!

11/ Bike-and-ride systems are utilised in Poland only in satellite towns and villages located in the vivify of big conurbations. Bicycles are used there to get to suburban train stations.

12/ The number of bicycle networks and their length in Polish towns and agglomerations are very low, but last years are enlarged about 1000 km. These are either separate paths,

pedestrians - bikers mixed itineraries, bike lanes along streets or so-called bicycle streets in traffic calming zones.

13/ National transportation policy related to bicycle is very passive and considers the bicycle as minor means of transportation.

14/ Promotional actions are infrequent and only from time to time results in the increase in bicycle.

PROBLEMS IN DESIGNING, REALISATION AND PERFORMANCES OF BICYCLE INFRASTRUCTURE

1. Lack of experience concerning effectiveness of different types of bikeways in different road - traffic and land conditions, lack of audit existing infrastructure. Generally managers of traffic in towns are not interested in functioning of existing bikeways;
2. Lack of actual recommendation on planning and designing of bikeways systems; This situation causes the differentiation of solutions constructed and to the false designing;
3. Polish Traffic Law /1998/ in field of cycling traffic is generally compatible with traffic law existing in majority of European countries.
4. From 1994 in new all Legal Urban and Country Planning Documents have to contain solutions of bicycle infrastructure. Ranges and a forms of solutions to bikeways systems aren't described in these studies. In this mean, many studies are elaborated without of know - how in cycling planing and their final results are very poor.
5. In Poland bike path is considered as a building construction and therefore have to pass the same procedure as a new building construction. Long procedure of co-ordination and slow decisions of responsible peoples in the Traffic Management Department in Regional or Municipals Local Authorities and Police make that co-ordination process takes very long time.
 - a/ receiving of order to bikeways project require adjudication by official tender procedure,
 - b/ technical project must receive positive opinion, decision and adjustment of different level Supervision Construction Administration and construction permission in District Authority is required.
 - c/ project is drawn in actual topographical map of land use /scale 1:500 or 1:1000/.
6. Costs of construction of bikeways in relation into Polish economical situation are enough high. Medium prices of construction a new bicycle infrastructure are rather high. Actual medium costs of 1 km of bike roads in the official price /June 2000/ are following: bikepath /new construction/ -111 000 USD, bikepath /only horizontal painting and vertical signs/ - 3 435 USD, bike lane in the street- 1 900 USD, bike street /traffic calming/ min. 2 000 USD. Generally when bikepath is leading close to sidewalk, a new pavement of sidewalk is planned usually, too.
6. There are not technical limits in scope of quality, type and colour of selected pavement. In many solutions pavements of bikepaths are constructed with concrete bricks, as pavement dissected.
7. Complex solutions of traffic calming zones or itineraries that could decrease costs of improving conditions of bicycles traffic in certain situations /zones or in itinerary as a tempo 30 or inhabitants zones (20km/h)/ are very rarely.

EXAMPLE OF EXISTING BIKEWAY INFRASTRUCTURE are presented in photographs. They show old and recent bicycle infrastructure in different local conditions as well as different types of bikeways - in Warsaw, in Tychy, in Puławy, in Szczecinek and in Kobylnica Słupska. Many of them were designed by author of this poster.



Photo. 1. In many Polish towns lack of bicycle infrastructure – example Wyszaków /34000 inhab./ near Warsaw



Photo 2. One – way bikeway in Tychy. In many cases bikeways are in very poor technical stage and they aren't practically maintained



Photo 3. Traffic calming though National Road 21 in Kobylnica. In the both sides of carriageway are pedestrian – bicycle one - way itineraries /designed by A.Zalewski/



Photo 4. One of the new bikeways' in Wola in Warsaw. Two - way bikeway is marking in pedestrian itinerary /designed by A.Zalewski/.



Photo 5. One of the new bikeways' of recreational function in Wola in Warsaw. New bikeway crosses a park /designed by A. Zalewski/.



Photo 6. Two – way bikeway in crossing of carriageway in Puławy /medium size town 100 km from Warsaw/ /designed by A. Zalewski/.



Photo 7. Bicycle parking installation at front of Municipality of Szczecinek /medium size town in West Pomerania Region/.

PERSPECTIVES FOR BICYCLE TRAFFIC AND INFRASTRUCTURE IN POLAND IN NEW MILLENIUM

In author's opinion are necessity:

- implementation traffic speed limit in urban areas to 50 km/h!;
- elaboration of National Strategy of Bicycle Network as an element of National Strategy of Sustainable Transportation System;
- creation of National Bicycle Network and systematically development as an integral and coherent element of EUROVELO Network; parallel development of touristic infrastructure along of bikeways;
- adaptation of cycling European Countries standards /for example: Dutch or German/ in planning and designing to polish conditions;
- simplification of designing and approval procedures;
- education of technical staff,
- education of school children in traffic law related to bicycle and safe behaviour in road traffic;
- improvement of cycling safety conditions by systematically building of different types of bikeways and traffic zones, modernizations and suitable quality maintenance of existing bicycle infrastructure;
- integration of bike in transportation chain in service of towns and agglomerations.

Andrzej Zalewski (1955) Ph.D. Eng. Dipl. is a Assistant Professor in Łódź University of Technology in Faculty of Building, Architecture and Environment Engineering /Poland/; He's a transportation and urban planner. He's active in bicycle planning field from 20 years. From 1991 is active participant in all VeloCity and VeloMondial Conferences; Author of many researches, studies and projects in transportation and traffic engineering; Author of more than 100 publications in specialized journals and in proceedings of conferences in Poland and abroad. He's a head of transportation section of Society of Polish Urban Planners; Address to correspondence: ul. Wolumen 22 m 5; 01 - 912 Warszawa, Poland; tel./fax +48 22 864 51 09; e-mail: azplan@supermedia.pl