VULNERABLE ROAD USERS, CHINA

Date started: 2006 Date finished: Ongoing (2009)
Partners: Beijing Transportation Research Center (BTRC), Beijing Technical University (BTU), BTMB, GRSP
Cost/time/resources: 220,000 CFH (GRSI funding)

Through the Vulnerable road user project in Beijing, low cost engineering measures have been implemented and piloted in 6 high-risk intersections to improve safety for the pedestrians and bicyclists. Evaluation shows that all intersections today are safer. This project is of high importance, as China has gone through rapid development and motorisation, with bigger and faster cars being used by mostly new drivers. Drivers, bicycle riders and pedestrians are going through a steep learning curve as they get to know new traffic rules and how to avoid conflicts within a changing mix of traffic. The presented low-cost engineering measures can assist the users and lower the number of conflicts and by that reduce the number of injuries.

Summary project sheet.

Objectives and scope

The overall objective of this project is to increase the safety for vulnerable road users with a focus on urban intersections in Beijing. According to official statistics, more than 50% of urban crashes, and more than 30% of suburbs collisions, occurred at intersections in 2004 and 2005. Of these, 43% of the crashes involved vulnerable road users. Therefore, the main objectives of the project are to:

- focus on the high-risk intersections
- improve the safety at selected intersections by using low-cost engineering measures (channelization, barriers, pedestrian islands, road signs, etc.)
- provide a good practice guide for other cities in China

Activities

The main activities of the project comprise of the following phases:

- data collection and analysis (police records)
- determine the high-risk intersections and risk factors
- carry out behaviour studies using video techniques
- develop key indicators for before-and-after data analysis
- suggest low-cost countermeasures for improvements
- implement the counter measures by local authorities
- carry out after surveys and conduct the before/after data analysis
- collect the experiences in a good practice manual

Conclusion and main lessons learnt

Based on the survey, the partners chose six high-risk intersections then implemented appropriate, safe countermeasures. An evaluation of those improvements has shown that the number of serious conflicts has gone down in all selected intersections: more bicyclists are using two-phased crossing (instead of diagonal); and the speed of right-turn vehicles have been reduced. These are all indications of safer intersections. Currently the experiences are being collected for a manual of good practice, which will be published in 2009.

Quote: Liu Xiaoming, Director of Beijing Municipal Committee of Communication

"Through multi-sector collaboration, Beijing GRSI Project in Vulnerable Road Users at Intersections not only trained road safety professionals in the city, but also improved the pedestrians and bicyclists safety on the road effectively".