Prof. Ryszard Krystek
Joanna Żukowska, M.Sc.

THE GAMBIT STRATEGY OF ROAD SAFETY IMPROVEMENT IN POLAND

1. The road safety improvement system over the last decade

This June twelve years will have passed since Poland changed its economic strategy by making a transition from the centralised to a free market economy. This triggered numerous both economic and social changes one could not have foreseen beforehand. Many of the cities found their infrastructure unable to cope with the new conditions affecting the quality of life of the population. Probably the hardest hit was the structure of spatial planning which was originally based on a concept of inexpensive public transport. The process of privatisation had its effect on public transport operators who were not ready to take the change both in organisational and legal terms. This marked the beginning of a decline of public transport systems affecting mainly the residents of suburban residential areas who commute to work. As a result, individual transport was in demand assisted by the opening of the western borders. Today, Poland's level of motorisation is such that with a relatively low GDP of 370 thousand USD in 1997 there were 220 passenger vehicles per 1000 people. To compare, Germany reached a similar rate at 11.4 thousand USD. The population's high preference for motorisation is only too clear.

As the absolute number of vehicles grew and passengers swapped public transport for their own cars, traffic volume grew fast. Parallel to that the state budget was in dire straits and road construction expenditure was drastically down (the share of the state budget went down from about 5% in 1990 to 1.9% in 1999). Consequently, within a few years the number of road deaths in Poland doubled reaching its maximum in 1991 (7901 killed; 21 killed/100,000 population). This rapid increase in fatalities caused the alarm of many individuals and institutions among them the World Bank which in 1992 sent a group of road safety experts to Poland.

The report they made "Road Safety in Poland" contained a critical evaluation of the state of road safety and recommended that a central body be established to take responsibility for road safety and elaboration of a long-term integrated road safety improvement programme. In 1993 the government appointed the National Road Safety Council and in 1994 commissioned an Integrated Programme of Road Safety Improvement GAMBIT which after several alterations continues to be the basis for regional and local programmes following the top-bottom principle. The recent version of GAMBIT 2000 was approved by the National Road Safety Council in December 2000 and passed on to the Council of Ministers by the Transport Minister for acceptance as Governmental Programme.
2. Road safety in Poland now

Against the background of OECD countries, Poland continues to top the list of countries where road traffic poses a high risk. This is illustrated in Fig. 1.

Despite Poland's high rate of risk in traffic which now is about 17 killed per 100,000 people, there has been a steady drop in the number of killed at about 2% yearly.

In-depth analysis of road safety showed that the biggest risk in Poland's road traffic comes from speeding and young drivers. The recent police data show that every fifth road accident (22%) was caused by excessive speed or driving too fast for the traffic conditions. In the group of drivers who have caused accidents 35% were aged 18-24. It is important to stress that this age group makes up only 14% of passenger car driving license holders, 12% of passenger cars drivers and 10% of Poland's population.

From the perspective of road traffic victims, vulnerable road users are the greatest concern. Almost 40% of accidents involve pedestrians or cyclists which next to vehicle crashes is the most frequent type of accidents. In 1999, pedestrians made up 40% and cyclists 10% of all road deaths in Poland, built-up and rural areas combined. Conurbations have the biggest number of killed vulnerable road users. In Warsaw this number is as high as 60% which moves this problem to the top of the city's transport issues list.

3. The goals and assumptions of GAMBIT 2000

The long-term road deaths forecast for Poland developed using the methodology of the Dutch road safety institute SWOV shows that for a moderate increase in passenger cars number (350,000 yearly) and with the start of the work indicated in the Programme, it is possible to achieve a drop in fatalities, illustrated in Fig. 2.
Based on some analyses, the following quantitative targets were adopted:

- short-term target: reduction in the number of road deaths to 5,500 in 2003
- long-term target: reduction in the number of road deaths to 4,000 in 2010.

These targets can be achieved on the condition that the main Programme assumptions are fulfilled:

- continuation of the strategy adopted in the first National Road Safety Programme GAMBIT ’96
- reduced number of priority targets because of the limited (modest) resources in the budget
- increased effectiveness of government administration and better management of road safety at the regional and local level
- providing local authorities with the legal and technical framework to enable effective local road safety work
- more funds for pilot projects to promote best practices.

4. Strategy for developing a road safety system

Road safety is one of the major indicator of a quality of life. Yet it remains a problem that politicians know very little about. There are many reasons why, including:

- lack of solid information about the road traffic risk, i.e. how big the problem really is. As a result, the public do not demand the politicians to undertake any preventive steps
- non-existent or poor legal framework to allow systemic preventive measures; e.g. the road traffic law versus the problem of young drivers, construction law versus road safety audit, etc.

GAMBIT 2000’s implementation strategy is to pursue two areas of activity at the same time:

- a system of road safety
- low budget road safety improvement measures.
4.1. How to develop a road safety system

A road accident is preceded with a very complex process which shows that in order to avoid an accident the problem has to be approached in a systemic manner using in-depth multi-disciplinary knowledge. Those countries that are still in the economic transition phase limit prevention to law enforcement activities. There is very little knowledge about training or collecting and processing of road data and in particular about promoting safe behaviour in road traffic, about safe road design or managing traffic.

Therefore, the Programme GAMBIT 2000 includes four main tasks that are the pillars of a road safety system:

- improvement of the road safety management structure
- development of a road safety information system
- implementation of a system of road safety audits
- implementation of a system of continuous education for road safety professionals.

The road safety management structure: needs a lot of modification and improvement, mainly due to the new administrative reform introduced on January 1, 1999. The country’s administrative division was changed and the former 49 voivodships (regions) were replaced with 17. In addition to that four management levels were introduced: the central, voivodship, powiat (county) and municipality level. Also the authority is divided between government agencies (government appointed) and self-governing bodies (elected). Because of the changes the newly formed road safety management bodies (in 1997) had to be replaced with new ones to match the country’s organisational structure. Figures 3a and 3b show the new structures.

The programme also sets out the division of authority between the government agencies and self-governing bodies (local authorities) to accommodate the needs of GAMBIT 2000.

The Programme indicates the importance of a draft Health and Life Protection in Traffic Act that Parliament should pass. This act is a means that will enable a cohesive and comprehensive coverage of road safety and help co-ordinate it with other regulations. In particular, the act should regulate the principles of appointing and establishing the responsibilities of the National Road Safety Council, Regional Road Safety Inspectorates and Regional and County Road Safety Councils. It should also detail the preventive tasks to be undertaken by local authorities and how they should allocate and manage road safety funds.

Development of a road safety information system the task is to modify the existing databases and bring the system of data collecting and processing up to international standards. Poland has already taken the first step by joining that group of OECD countries two years ago that maintain the IRTAD (International Road Traffic Accident Data) database.

At present, work is under way on producing an integrated database on roads, traffic, drivers, vehicles and road accidents. This would be an important step towards joining the European CARE data bank.

The Programme also plans to introduce a comprehensive system of information about road safety – an adaptation of the Dutch SIS system.
Fig. 3a. National structure of road safety management.
Implementation of a system of road safety audits; this means prevention at the level of planning, designing and use of roads through the implementation of procedures for independent and professional road safety evaluations. The first stage is about the development of a concept of how road safety audit should be organised in Poland. Following that audit procedures and guidebooks will be developed, after which pilot audits will begin (at first in road administration). A national course for future road safety auditors is being delivered as we speak.

Implementation of a system of continuous education for road safety professionals; planned to continuously deliver qualified road safety professionals. The education will be delivered on three levels of the road safety structure:

- central level for the management of central entities including all members of regional road safety councils
- regional level; at the existing Regional Road Traffic Centres road safety training centres will be established to train regions and counties
- local level for municipalities and members of NGOs and voluntary workers who want to be a part of road safety improvement work.
4.2. Implementation of road safety improvement measures

Because the resources and funds are only sufficient to deal with the main road safety problems, GAMBIT 2000 focuses on four priorities:

"Speed"; aimed at curbing the excessive speed in particular in built-up areas. Work on this priority begins with a campaign to inform road users about the risks of excessive speed. Next, changes will be introduced into curricula of driving schools and examinations. One important issue is a change of the legislation by introducing a 50 km/h speed limit in built-up areas (Poland's speed limit is 60km/h) and automatic speed checks.

"Pedestrian and cyclist"; this priority aims to implement low-budget, easily available road safety measures to protect vulnerable road users. The start was made by introducing on January 1, 2001 no parking on pavements and pedestrian zones. The main tasks involved here include a review of the technical requirements of design, construction and maintenance of pedestrian, cyclist and disabled facilities. An important issue is to promote urban transport systems to accommodate the needs of pedestrian and cyclist traffic by launching pilot projects.

"Young driver"; the objective of this priority is to adapt western methods to evoke changes in the attitude of young drivers. This means mainly changes in driver licensing and training and creating driver re-education programmes – for frequent offenders. This work aims to bring the Polish system to the standard of the system the European Union is working on.

"Road"; this priority focuses on black spots, i.e. those segments of roads where the risk is highest. There are plans to implement methods of identification and methods for the evaluation of the economic effectiveness of road safety improvement measures once they have been applied. There are also plans to publish catalogues containing the most effective solutions, i.e. best practices.

5. How to promote road safety

So far road safety has not been a favourite among campaigning politicians. It is only natural because any major road safety improvement measures are costly and long-term. As a result, any activity a politician could begin at the beginning of the term of office would yield the results only after the next election which makes it unattractive to use during election campaign.

Because of this a programme aimed at improving the road safety situation should contain low-budget and short-term action that yields effects and makes the authors credible. Such work should be aimed at vulnerable road users as this is the area where success is possible using inexpensive road safety measures.

Using the effects of short-term programmes as the basis, long-term projects can be elaborated and made to become an element of a sustainable transport system.

In the case of GAMBIT the plan of a promotion campaign has three fundamental directions: seminars held in Parliament for MPs interested in the issue to present the GAMBIT programme and draft of the Health and Life Protection in Traffic Act presenting the Programme in the media: TV, radio, press public discussion on the Programme during the International Seminar GAMBIT 2000 attended by the Transport Minister. The Seminar's motto was "Global Road Safety Partnership" in association with GRSP Europe.
The presentations in Parliament paved the way for an amended road traffic act introduced by the Transport Minister. We are expecting significant changes in the law to reflect the Geneva Convention and European Union requirements. The biggest change will be a speed limit of 50 km/h in built-up areas.

Presentations in the media have increased public awareness of the road traffic risk leading to the formation of first NGOs in Poland whose members are citizens who have suffered a personal tragedy. The organisations fall into two types: those of a preventive nature aiming to reduce the risk in their neighbourhood and of protective nature working for road traffic victims and their families.

The public discussion on the Programme GAMBIT 2000 was continued on a forum of specialists, including international experts. With the Minister attending the Seminar and delivering a paper the authors of the Programme felt their work of many years was rewarded. By attending the meeting the minister showed political will to solve the problem of road safety in Poland.

The Seminar GAMBIT 2000 coincided with the establishment of the GRSP Committee and served as a platform where the private sector, government agencies and local authorities had the opportunity to discuss joint road safety work. The objective of GRSP Poland was to interest the private sector in the road traffic risk and raising awareness of the seriousness and urgency of the global road safety problem. It was a condition of organising a meeting of the National Road Safety Council and the main partners from a private sector, who had declared readiness to collaborate for road safety. During the first year of joint activities a few interesting projects come to existence. Most of them has been realised or their realisation actually goes on.

As we supposed the idea of GRSP faced with a great interest in Poland both of administration authorities and private sector. The Deputy Minister took a lead of the GRSP Committee. The projects presented in an Appendix A illustrate a scope of the undertaken activities within a 3E formula: education, engineering and enforcement.

6. Conclusions

Over the last 10 years Poland’s road casualty trend has been decreasing. In 1991 it was almost 8 thousand and the forecast for 2010 is 6 thousand killed. Despite that the rate of the decrease is still too slow, a trend observed in other transition countries, as well. Over the last 10 years we have gathered a lot of experience; the lessons we have learned can be summarized as follows:

- Good European Union projects (e.g. World Bank Report “Road Safety in Poland”, 1992) were very helpful in the process of creating road safety organizational structures – the National Road Safety Council and Regional Road Safety Councils as co-ordinating bodies.
- Several projects were not prepared sufficiently well e.g. Phare Multi – Country Road Safety Project (1999).
- The main problem in the first stage of creating the road safety system was to convince the politicians how serious a problem road accidents are both in economic and human terms. The reason is that the results of the measures applied take a long time to show - often longer than the politician’s term of office.
- The reports of independent university centers turned out to be the most effective formula for creating a “traffic safety consciousness” among different authorities. The centers have also created the first structures of road safety staff education.
- The most harmful prevalent opinion which was commonly used by politicians and the media, was the formula: “a dynamic development of motorisation brings about an increase in the number of accidents and casualties” while the real reason was a lack
of systemic countermeasures in three sectors: education, engineering and law enforcement.

An important obstacle within the process of evaluating the effectiveness of undertaken activities was devaluation of the value of human life.

The most difficult and serious problem still to be solved is excessive speed, particularly in urban areas. Speeding is the primary reason for pedestrian casualties in conurbations with pedestrians making up 60% of road deaths. In the meantime attempts to introduce 50 km/h speed limits in urban areas met with great resistance both of the parliament and the public. The GRSP Project was very helpful in promoting the new speed limit.

Last year the Polish government accepted a document titled: “The assumptions of the national transport policy for 2000 – 2015 to achieve a sustainable development of the country”. One of the document's main assumption is the need to modify the transport policy and adopt it to European Union requirements. Therefore, The National Program of Road Safety Improvement in Poland GAMBIT 2000, accepted by the National Road Safety Council in December 2000, puts intensification of road safety activities on top of the list of priorities that will lead to a decrease in Poland's traffic risk from today's 17 to 10 killed per 100,000 population in 2010.
Appendix A

Project 1: Improvement of visibility of heavy vehicles at night.
Project leader: 3M, Poland
In co-operation with: Daimler Chrysler, IRU Poland, Chamber of Insurance Companies Poland, Shell, Siemens, Police, National Road Safety Council.

Project 2: Improving the visibility and safety at 6 black spots.
Project leader: General Directorate for Public Roads
In co-operation with: 3M, Siemens, Police, Automobile Club, National Road Safety Council.

Project 3: Improving black spots by traffic engineering measures.
Project leader: General Directorate for Public Roads
In co-operation with: Siemens, Daimler Chrysler, 3M, Police, Automobile Club, National Road Safety Council.

Project 4: Improving knowledge about safe urban traffic engineering.
Project leader: Siemens Polska
In co-operation with: Technical University of Gdansk, National Road Safety Council, Police.

Project 5: Improving the safety school children by education programs.
Project leader: Daimler Chrysler

Project 6: Promotion of the 50 km/h speed limit in Poland.
Project leader: Cityboard Media
In co-operation with: Technical University of Gdansk, National Safety Council, Police.

Project 7: The application of a policy information system for road safety.
Project leader: SWOV, The Netherlands
In co-operation with: Motor Transport Institute, GRSP secretariat, Technical University of Gdansk, National Safety Council, Dutch Ministry of Transport.

Project 8: Presentation of the GRSP Poland Program at the Gambit Gdansk Conference, May 11 and 12.
Project leader: Technical University of Gdansk
In co-operation with: All other partners.

Potential Project 9: Ice warning equipment demonstration project.
Project leader: NH Polska
In co-operation with: Road Administration GDDP, Police

Potential Project 10: Road Safety Information Book for Political and Managerial Decision makers.
Project leader: Technical University of Gdansk
In co-operation with: 3M, Daimler Chrysler
More details will follow in the next presentations.