

National road safety programme GAMBIT 2000

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Abstract - In 1989 Poland gained political and economic independence and moved from a centralised economic system to a free market one. The new social and economic conditions facilitated Poland's quick economic growth and the rate of motorisation is one of its indicators. Unfortunately, the growing motorisation was not accompanied either by preventive action or road network construction. As a result, the number of road accidents and casualties soared.

It was only after the World Bank published its 1992 report "Road Safety in Poland" that the government appointed the National Road Safety Council, followed by a 1994 decision of the Minister of Transport to commission the "Integrated Road Safety Programme", under the acronym of GAMBIT'96. The Technical University of Gdansk was asked to co-ordinate work on the multidisciplinary project.

In 1999 the World Bank initiated Global Road Safety Partnership, a world-wide project which in Europe was to be carried out by three countries: Hungary, Romania and Poland. The main reason why Poland was selected for the GRSP Europe project was no doubt the Integrated Programme GAMBIT'96, a network of regional road safety councils and several regional implementations of the GAMBIT Programme.

The start of the Polish GRSP coincided with a contract for a new version of the road safety programme called GAMBIT 2000 commissioned by the Minister of Transport. The programme was approved by the Council of Ministers in May 2001 as the National Road Safety Programme for Poland for the period 2001-2010. By virtue of the decision the programme has received the status of a national programme that would enable allocation of funds from the central budget in the top-down budget line.

1. Introduction

This June 14 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. We can now look back on the past decade of Poland's road safety efforts. The number of road deaths went down from 7901 in 1991 to 5827 in 2002. Quick growth of motorisation, lack of preventive measures and a slow pace of road network construction and modernisation are the characteristics of the majority of developing countries. Keeping track of the success and failure stories experienced by other countries is worthwhile so that at least to a small degree we could avoid the mistakes others have already made.

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 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. Consequently, within a few years the number of road deaths in Poland doubled reaching its maximum in 1991 (22 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 Council of Ministers as National Programme for Poland for the period 2001-2010.

Raising social awareness of the risk to health and life in road traffic, in particular, requires an in-depth study of the process in other countries. Similarly, the economic losses incurred by road accidents, are just as important, especially because the public or even government administration are unaware of the size of the problem. The size of social and material loss annually borne by Poland in road accidents expenditure (2.7 % GDP) are sufficient justification of allocating funds to finance the activities. Therefore, road safety work should be conducted above the political and geographical divisions. It is obvious that we are all at risk regardless of our citizenship or place.

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 15 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. Recently, 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.

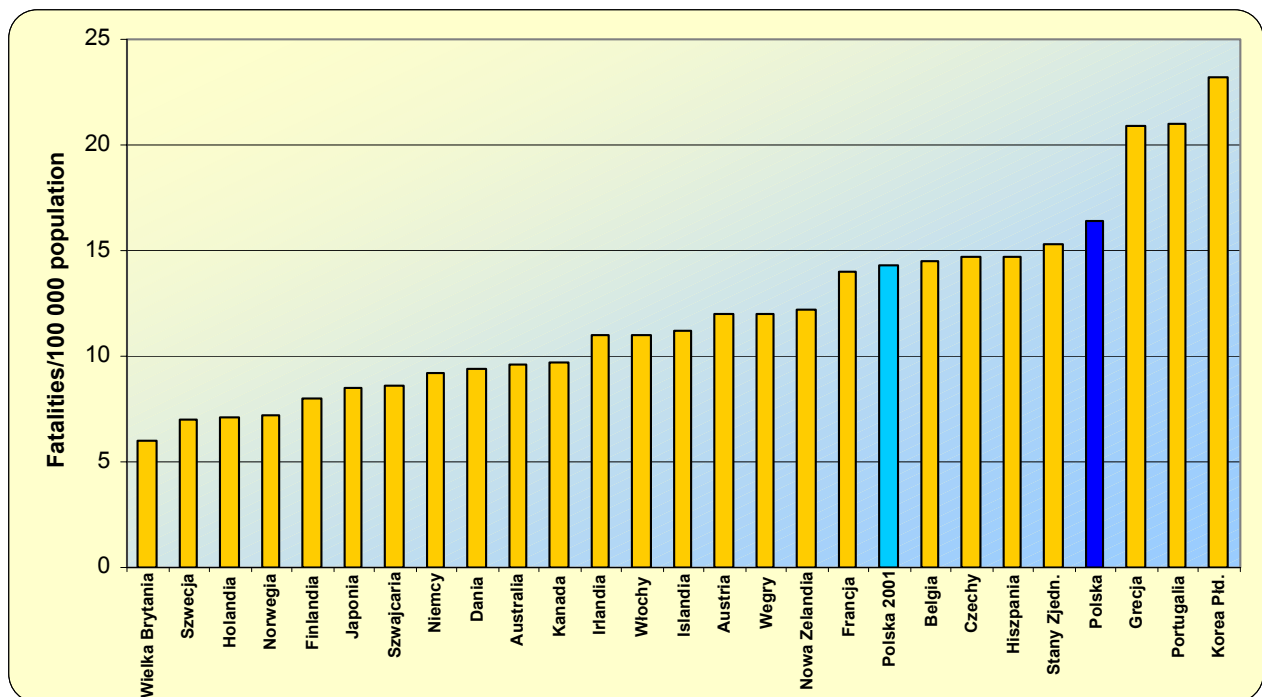


Fig. 1. Road deaths per 100,000 people in OECD countries (2002).

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 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.

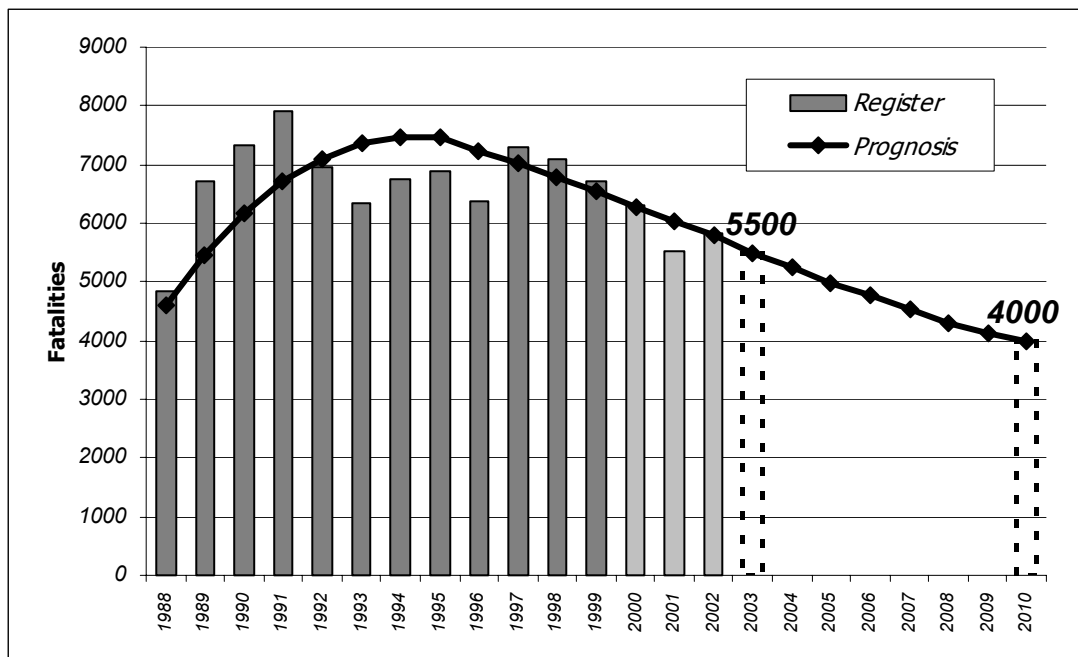


Fig. 2. Actual and forecasted number of road deaths; Poland 1998-2010.

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.

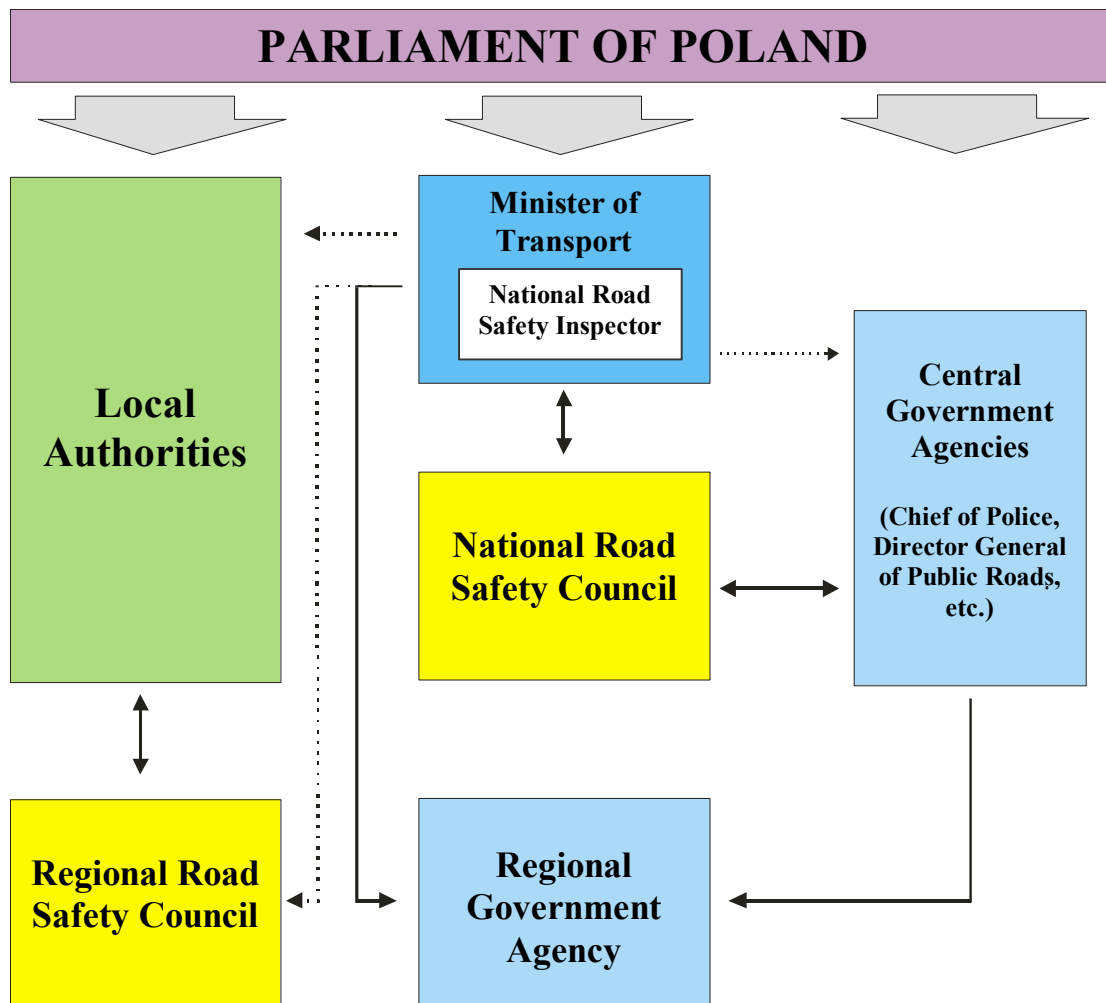


Fig. 3. National structure of road safety management.

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, poviát (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 3 and 4 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.

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.



Fig. 4. Regional (voivodship) structure of road safety management.

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 drivers"; 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 2002 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.

Other Eastern European countries which made the shift in 1989 to a free market economy and were previously members of the so called Socialist Block, have made a similar experience. Three of them – Poland, Romania and Hungary - joined the World Bank's GRSP programme and we each came across similar problems. This has to do with a lack of public awareness of the road traffic risk, a lack of political will to solve the problem of road accidents, insufficient road safety funding and no road safety management organisations or training.

The Seminar GAMBIT 2002 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.



Fig. 5 GRSP countries

6. Economic activity vs. risk on roads

Last years saw both successes and failures. While the first can be seen as rewards for hard work, the latter should be treated very carefully as possible threats to the GAMBIT programme. As we analyse the number of killed in road accidents over the recent years, we cannot fail to notice 2001 with its unexpected reduction in fatalities. We expected about 6000 fatalities, and the actual number was 5534. When the Police published in early 2002 its road accident report for the previous year, the results were welcome, in particular by government administration. Radical MPs would even go as far as to demand cuts in road safety spending to use the funds for other purposes.

More research was required to identify the real causes of the reduction. We had to be careful and not allow the government to misinterpret the figures. If the reduction is not attributed to the reduced level of economic activity, and in particular to fewer miles travelled by passenger cars and trucks, we run the risk of the Parliament, government administration and the public underestimating the problem of road safety. We warned that the figures were the result of the economic downturn. In June 2002 at a meeting of the Parliamentary Infrastructure Commission, that has responsibility for overseeing the implementation of the National Road Safety Programme GAMBIT 2000, we presented a report that demonstrated the connection between unemployment and the number of killed in road accidents. In March 2002 we said we expected an increase in fatalities in 2002. The same report was presented on Channel 1 of public television.

In 2002 there were 5827 fatalities, i.e. 293 people more than last year, confirming our hypothesis. The change was short-lived and the actual data are now as given in the long-term prognosis. We are afraid, making the politicians and the public accept again that road risk continues to be high is going to be a difficult task, especially given the enthusiastic response to the 2001 casualty reduction.

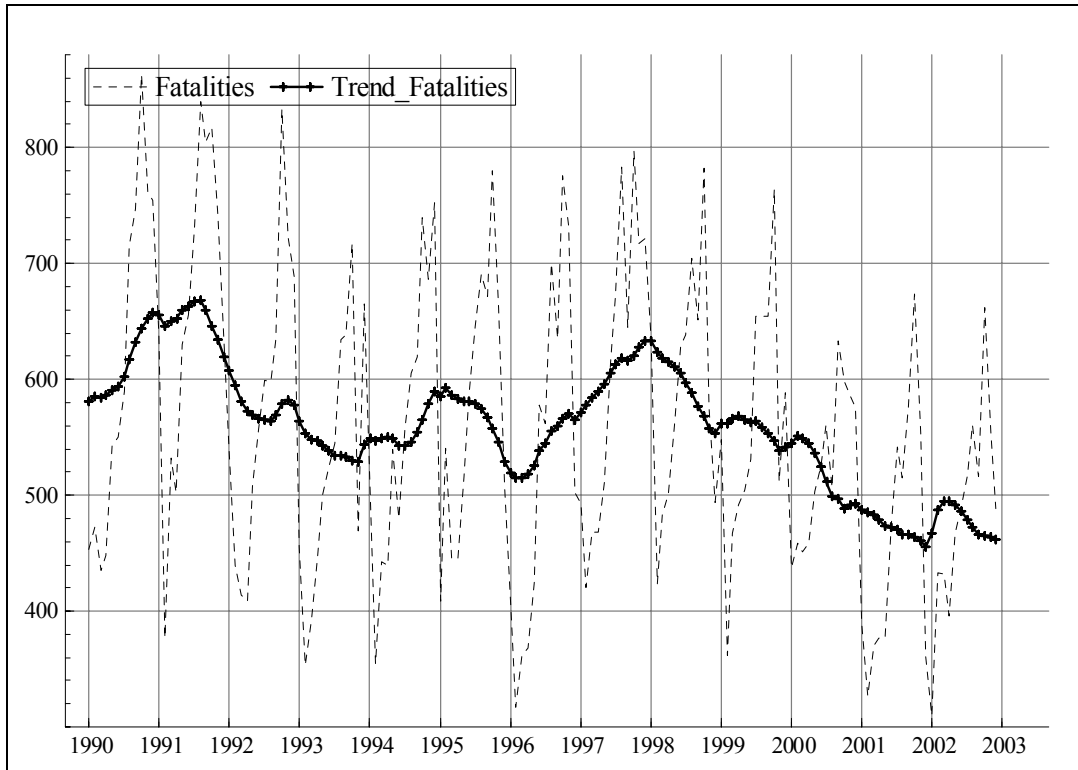


Fig. 5 Monthly road deaths data in Poland and the 1990-2002 trends

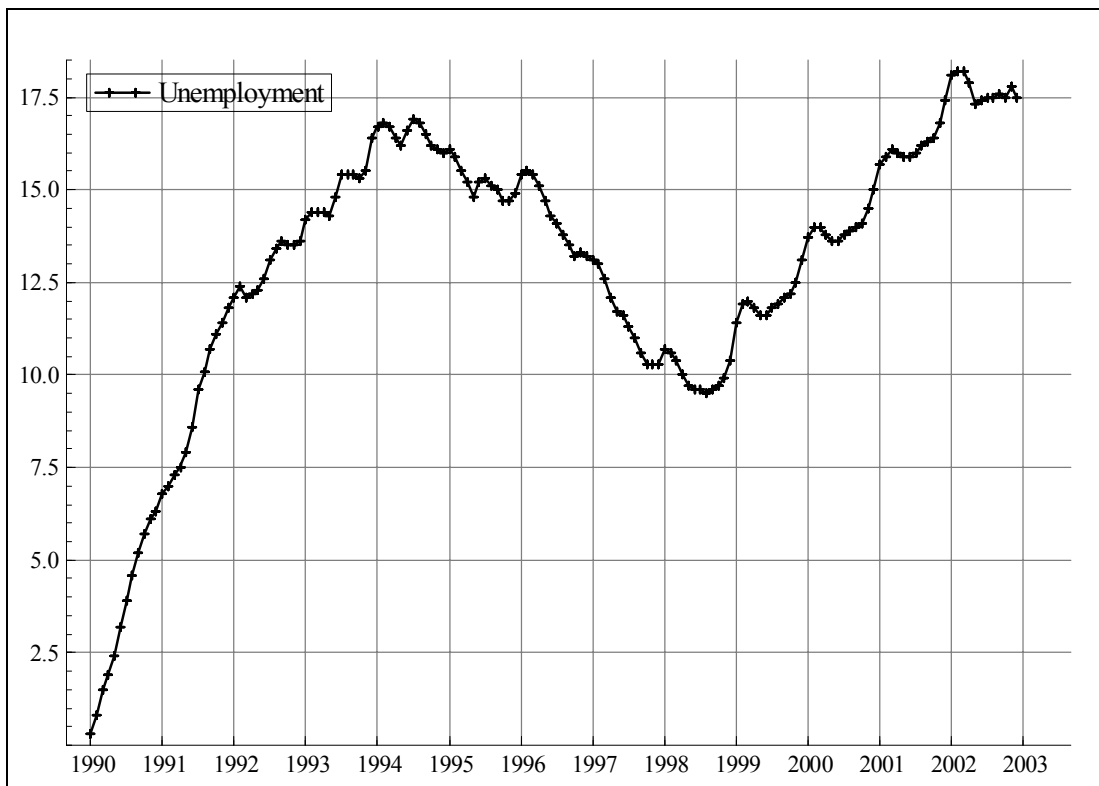


Fig. 6 Poland's monthly unemployment data 1990-2002

In arguing that there is a correlation between the number of fatalities and economic activity in the country, international researchers analyse the unemployment rate (Thorensen et al, 1992). What we find is that an increase in unemployment is accompanied by reduced vehicle mileage, which is known to be one of the factors affecting road safety. The same rule seems to be apply to Poland as well.

Please note the difference between the absolute number of killed and the related trend. Figure 2 shows 1997 to be the first year with a downward tendency in the number of killed. Figure 5, however, shows 1998 to be the year of the actual change where from January 1998 to December 2001 there is a clear casualty reduction.

As we developed our 1999 prognosis for GAMBIT 2000 we assumed that economic activity would continue to grow monotonically. What happened was that 2001 saw a severe economic crisis. In the spring of 2001 the government published its first budget deficit paper estimated at 12 billion USD. Please note that the economic losses caused by road accidents were estimated in GAMBIT 2000 at 3 billion USD annually.

In mid 2002 we presented the following conclusion to the Parliamentary Infrastructure Commission: "With the reduced level of public activity, the result of the current economic crisis, the need for transport has gone down, reducing the overall vehicle miles travelled. This in turn has reduced the number of road accident fatalities. Would it be true to say that 2002 and successive years that the government thinks will bring economic growth and lower unemployment rates, will see an increase in road traffic risk? – Yes, it would, because accident data for the first six months of 2002 show such developments to be highly likely". Sadly, our projections proved right.

7. 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 4 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.

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 Council of Ministers in May 2001, 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.

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