

4.

POLAND – THE PRIVATE CAR AND PUBLIC TRANSPORT IN CONFLICT

by *Edvard Menes*

4.1 The private car in Polish history

The development of individual motor transport in Poland was for a long time arrested by the socialist authorities for ideological reasons. The communist idea of society did not allow for spectacular individualism or conspicuous consumption.

1971 became a turning point for private transport. The new cabinet of E. Gierek decided to back individual consumption. This brought about a substantial increase in efficiency and productivity of work. But the economic breakdown of the seventies and eighties, along with the imposition of martial law, impeded the development of individual transport once again. The situation underwent a radical change in 1989 when Poland regained liberty. The car became a tangible symbol of that liberty and was just what millions of Poles dreamt of.

Poles have a very emotional attitude towards the car. It suits their national character which highly praises freedom, mobility and dynamism. The results of such a state of affairs is clear. Home budget surveys covering the years 1989–1991 revealed the largest rise in the number of cars in the lowest income groups: from 8 to 31.7 cars per 100 households.

4.2 The road network

The Polish car population moves over a road network which cannot be referred to as modern and which is also characterized by a low level of road maintenance. However, with respect to amount it does not depart far from the average European road density and equals 109 km/ 100 km².

Polish car market profile

The Polish passenger car market (cars in use) is different from the west European market in several respects. It is still highly homogeneous: home produced cars constitute 60 per cent of cars in use, it has a small proportion of self-combustion engine cars (5 per cent), a large number of small-engine cars (over 35 per cent), and some two-stroke engine cars, which can no longer be registered but which still constitute about 10 per cent of the market.

It is also characterized by the high mean car age. This is 9–10 years, while there are currently 2.3 million cars over 13 years old on the roads. The high average age of vehicles means that they are in a bad state of repair.

The structure of the passenger car market in Poland in 1994 in respect to engine capacity was as follows: vehicles with an engine of up to 1000 cm³ accounted for 42 per cent; those from 1001 to 2000 cm³, 53 per cent; Those from 2001 to 3000 cm³, 4.9 per cent and those over 3001 cm³, 0.1 %.

The most popular makes are:

Maluch (the small) Fiat 126	(over 33 per cent of the market)
FSO – Fiat and Polonez	(22 per cent)
Skoda	(4 per cent)
Volkswagen	(4 per cent)
Lada	(about 3 per cent).



“Maluch”

The Polish roads

Poland has 360,900 km of roads, including 45,600 km of national roads, 99.9 per cent of which have an upgraded surface. On the whole, 63.4 per cent of all roads in Poland have an upgraded surface.

According to the most recently available studies, the heaviest volume of traffic, between 10,000 and 15,000 cars per 24 hours, only occurs in a few places on the most frequently used routes: Gdansk–Gdynia, Warszawa–Ostrow Mazowiecki, Warszawa–Piotrkow Trybunalski–Katowice, Tarnow–Krakow–Katowice–Opole, Konin–Poznan, and Lodz–Piotrkow.



The combined length of roads where traffic density exceeded road capacity was assessed to be 2,500 km at the beginning of the nineties. This included roads with bridges, large city bypasses, and so on.

Most car traffic was concentrated on national roads. However, even on the national roads, the average daily volume across the whole country in 1990 was only 2,273 vehicles. In 1995 this figure had increased to 3,227. Thus the rise in road traffic volume between 1985 and 1990 was 22 per cent, and between 1990 and 1995 42 percent. A similar dynamic increase in volume of some 7 per cent per year is estimated for future years, as is the continuing dominance of passenger transport. At present, all kinds of cargo road transport amount to one-third of all road transport.

The road network in Poland has numerous weak points. The most notorious of these are:

- an insufficient number of multi-carriageway roads (there are only 4,136 km of such roads);
- general accessibility of all roads, including those where traffic travels at high speed, to all types of road-user (including horses, pedestrians and cyclists);
- poor condition of road surface: 28 per cent of the roads need surface repairs immediately and 54 per cent need them within the next two years;

- poor condition of existing engineering facilities;
- lack of city ring-roads, level intersections including railway crossings, pedestrian subways etc..

In 1993, a long-term plan for the building of motorways and main roads was accepted. It is forecast that in the next 15 to 20 years about 2,600 km of motorways will be built at a cost of 18 billion new zloty. Also, more than 1,000 km of international roads will have to be modernised which demands another 2.5 billion new zloty. The plan will be carried out by enormous investment which will be partly financed from private capital, amounting to 75 per cent of the total amount needed. The programme is obviously of extreme significance for the whole country's economic system, in addition to its importance for the transport industry itself. The real possibility of its being carried out is based on, and depends on, the assumption that road traffic volume will significantly increase.

On the basis of preliminary data, it may be assumed that Polish drivers can afford to pay 2 to 3 cents per 1 km of a motorway. That leads to the conclusion that the amount of money collected from toll fees in the unlikely situation of at least 30,000 vehicles a day using a particular piece of road, would only cover the interest payments. At present, the volume of traffic using future motorways can be estimated at slightly over

10,000 cars per day. This situation results from the limited usage of passenger cars.

It is easier to purchase a car than to run it as the cost of petrol, insurance, repairs and spare parts is relatively high.

4.3 Mobility

Mobility in Polish society is relatively low in comparison with the European mean and is a consequence of the current Polish economic situation. Mobility is estimated at about 4,800 paskm/person (paskm = passenger kilometre) a year, or 13 km a day. (about 188 billion paskm in total).

Today it is already over 50 per cent of that distance that is travelled by passenger cars. The general mobility of society is expected to increase with the rise of the GDP. The growth will mainly be in car transport.

According to some forecasts, out of a total passenger distance travelled of 250 billion paskm in the year 2000 and 377 billion paskm in 2010, 60 per cent and 65 per cent respectively will be travelled by cars.

4.4 The public transport crisis

Poland has not managed to protect its public transport from degradation, although it was previously well developed. So far, Po-

Air pollution from private cars in Poland

According to 1992 estimates, private motoring, which used over 70 per cent of the total amount of the petrol (3.2 million tonnes) and 6 per cent of the diesel oil (300,000 tonnes) consumed, was responsible for emitting large amounts of air pollutant

	absolute amount (tonnes) emitted by private cars	relative to all combustion sources
CO	600 000	48 %
CH	160 000	44 %
NO _x	75 000	16 %
Pb	500	
SO ₂	6 000	
CO ₂	6 700 000	

land has not drawn any practical conclusions from the experiences of the highly motorized western countries. 'Market realities' have forced public transport companies to increase their prices repeatedly. As a result, the number of services has declined, especially when compared with the developing private means of transport.

This decline has been caused by a number of factors:

- reduced commuting by country people as a result of unemployment increasing by several per cent, and
- changing standards and style of life: the video replacing the cinema, the possibility of shopping in the neighbourhood and greater opportunities for people to live close to where they work or study.

The data in Figure 4.2 demonstrate the falling trend in the number of services rendered by public transport.

4.5 Adverse effects of private transport development

As private transport is taking over substantially from public services, the range of its adverse influence on the natural environment increases.

Existing road and vehicle conditions, transport organization and the quality of petrol used explain that the existing flow of transport in Poland is much

more destructive to the environment than a comparable flow in the west.

Transport-waste constitutes another serious problem. Today, only a small proportion of oil and tyres used is recycled. It is worth remembering that an appropriate industrial base exists and that the system of collecting and delivering used products only struggles along, mainly because of the small profit that comes from recycling.

As a result, for example, out of the 300,000 tonnes of oil consumed (of which about 25 per cent is used by private cars) only about 10 per cent is regenerated. As regards low-temperature gelling liquids (used by private transport to the amount of about 15,000 tonnes a year), brake fluid (2,500 tonnes), battery electrolyte (4,300 tonnes), car tyres (27,000 tonnes) and the use of damaged

cars' bodies, the situation is even more disturbing.

4.6 The community's attitude towards pollution from traffic

Polish society is just beginning to perceive motorization as being responsible for the emission of toxic pollutants. In a 1993 opinion poll on environmental threats, the word 'pollution' was cited by 29 per cent of those questioned and respondents placed it as high as fourth in a list of suggested dangers. It should be added that it is popularly believed that it is the industry that constitutes the greatest danger.

It is therefore not surprising that, in the last parliamentary elections on the 19th of September 1993, only seven of the main nineteen parties underlined the significance of ecology and none of them made it a primary issue. Emerging ecological movements and groups have until now had a local or community character and they have a long way to go before it will be possible to compare them to similar organizations in western Europe in terms of popularity and scope of activity.

4.7 Road safety

However, society's involvement in the problem of road safety is much larger and specialized government agents function in that field. It is due to the direct effect of the shocking number of car ac-

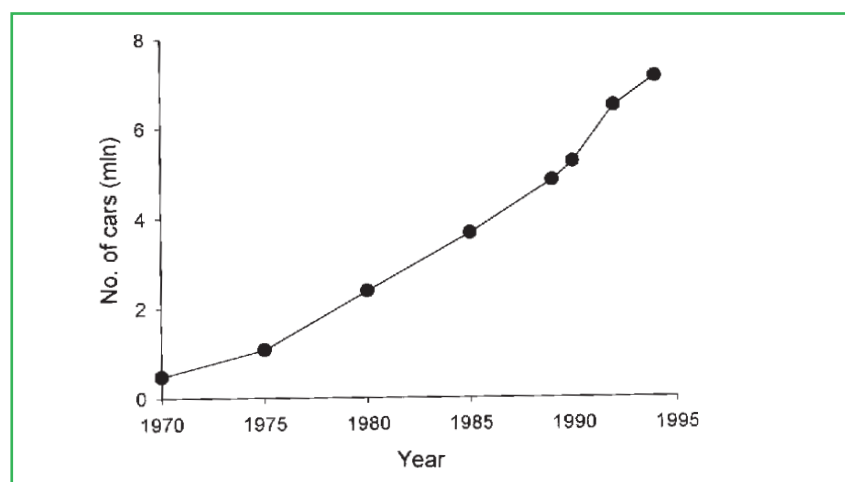


Fig. 4.1 Number of registered passenger cars in Poland 1970-1994

cident casualties which is one of the highest in Europe. In 1990, in 50,000 accidents 7,300 people lost their lives and almost 60,000 were injured. During 1992 and 1993, as a result of regulations introduced by the authorities, such as the compulsory use of seat-belts and the turning on of lights in winter, a certain fall in the number of accidents and their aftermath has been registered (In 1993, 6,300 people lost their lives in 48,000 accidents).

Unfortunately, that positive trend stopped once again in 1994 when 6,700 people died and 30,000 were seriously injured in 53,600 accidents. In 1995 6,900 people died in 56,900 accidents. It should be pointed out that over 20 per cent of accidents were caused by drivers under the influence of alcohol and the number of casualties from such incidents accounted for almost 30 per cent of all deaths from road accidents.

The great majority of problems, or at least the intensity of their occurrence, depend not only on the number of cars on the roads but also on the manner and extent of their usage. This, in turn, is a function of State activities, especially the development and competitiveness of public transport and fiscal policies on motorization.

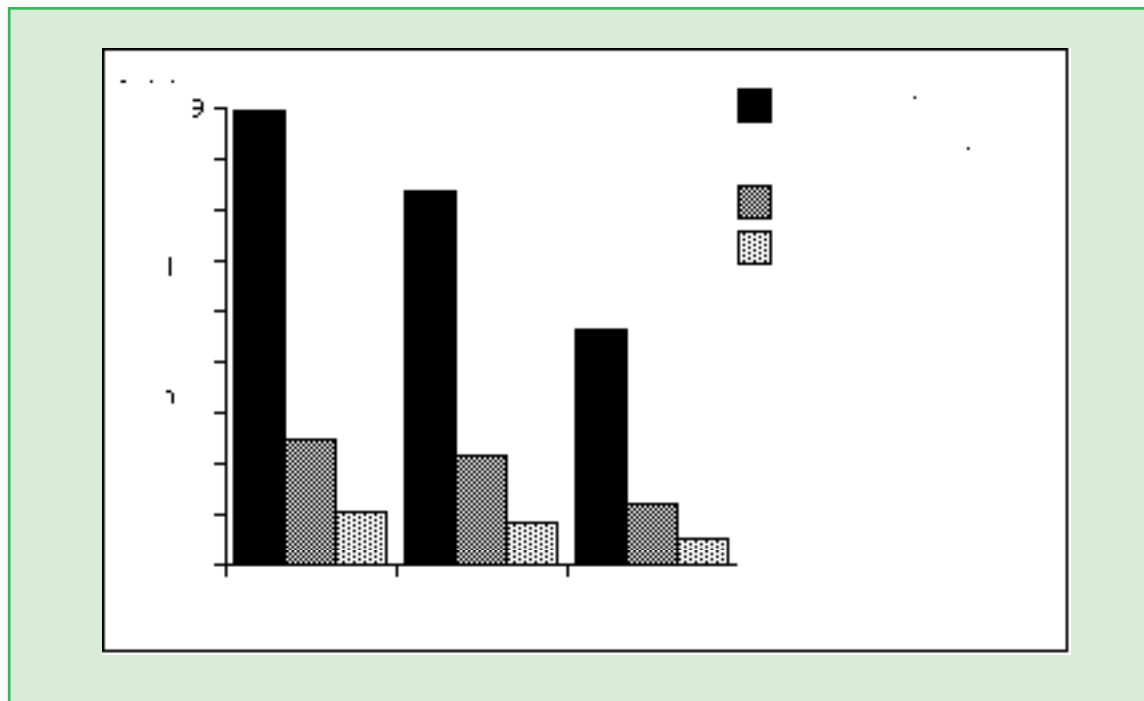


Fig 4.2 Number of passengers in the public transport systems