3.7 Conclusion and Key Issues

3.7.1 Characteristics of Manufacturing Sector of Konin Province

(1) Position of manufacturing sector

The economic position of the manufacturing sector in the whole country and in Konin Province are summarized in Table 3.7-1

Table 3.7-1 POSITION OF MANUFACTURING SECTOR IN ECONOMY, 1995

(Unit: %)

	Value added		Employment	
	Konin	Poland	Konin	Poland
Agriculture	11.6	7.5	41.6	27.0
Mining & electricity	21.8	9.1	8.2	4.2
Manufacturing	19.8	23.4	13.6	20.7
Others	46.8	60.0	36.6	48.1
	100.0	100.0	100.0	100.0

Looking at the share of manufacturing, Konin is lower than the national average. The agriculture sector, however, is undoubtedly high in terms of share of employment as well as the value-added energy and electricity sector.

(2) Industries other than energy based industries

The presence of three key industries in the industry sector is undoubtedly high, but 97.5% of the total economic units in the sector are small and medium-scale enterprises (SMEs). SMEs also accounted for 60% of employment and 65% of total sales in the manufacturing sector, respectively. Nearly 70% of these SMEs were established in or after 1990. This new SME group continues growing; however, they do not have enough power to hire unemployed persons who will be out of work in the process of privatization of former and large state-owned enterprises.

Table 3.7-2 SCALE OF BUSINESS TYPE IN KONIN PROVINCE - MANUFACTURING SECTOR -

No. of Enterprises by Business Type			
1	Textiles & Garments	418	18.6%
2	Foods & Beverages	361	16.0%
3	Wooden Products	318	14.1%
4	Metal products	276	12.3%
Sales Income by Business Type			
1	Foods & Beverages	693mil.zl.	20.7%
2	Metal Products	394mil.zl.	11.8%
3	Non-metal Products	155mil.zl.	4.6%
4	Textiles & Garments	144mil.zl.	4.3%
No. of Employees by Business Type			
1	Textiles & Garments	5882	26.1%
2	Foods & Beverages	5710	25.3%
3	Metal Products	3253	14.4%
4	Machinery & Equipment	3206	14.2%

Looking at the above statistical data, after taking the metal products sector which consists of large-scale enterprises such as HUTA Aluminum into consideration, the largest sectors among SMEs are the following three. They account for 48.7% of the total number of enterprises in Konin Province.

- Textiles & Garments
- Foods & Beverages
- Wooden Products

Most of the manufacturing enterprises, excluding a part of food processing and non-metal products, are buying materials from outside the province (including from abroad), and selling the processed products either in Konin Province or other domestic markets. Even so, aluminum sheet and raw wood, are also shipped outside the Province without any processing. They are also producing many general consumer products such as garments, foodstuffs, etc. but there is a lack of manufacturers of mechanical parts and durable consumer goods in the province.

(3) Current status of privatization in Konin Province

In Konin Province, there were 38 state-owned enterprises in the process of ownership transformation as of December 1996. Another 15 state-owned enterprises were already liquidated in the province before December 1996,

and 21 other enterprises are still waiting to enter the privatization process in the province.

Although the number of state enterprises a waiting the privatization process in Poland was not available, the growth rate of the number of state enterprises engaged in ownership transformation in 1996 was 7.4%, which was 1.8% higher than that of Konin Province, 5.6%.

Table 3.7- 3 STATE-OWNED ENTERPRISES ENGAGED IN THE PROCESS OF OWNERSHIP TRANSFORMATION

(In number)

	As of 1995.12.3	As of 1996.12.3	Growth rate (%)
Poland	5,206	5,592	7.4%
Konin	36	38	5.6%

3.7.2 Major Problems in the Manufacturing Sector

Major problems and difficulties which exist in the manufacturing sector of Konin Province can be summarized as follows;

(1) Slow progress in privatization

The progress of the privatization process in Konin Province is dragging. One reason is the financial condition of the remaining state-owned enterprises. Naturally, the state enterprises in good financial condition were privatized through either commercialization or direct privatization. State enterprises in unhealthy financial condition have difficulty in finding investors. For such enterprises, liquidation for terminating their operations is also time-consuming because of interested parties such as employees and creditors.

On the other hand, new enterprises, originally privately incorporated, have emerged since 1989. Such enterprises with entrepreneurial spirit are vigorously conducting their businesses. In the near future, they will partly facilitate privatization by absorbing the assets and manpower of the remaining state enterprises.

(2) Weakness of internal linkage in the provincial industry

There are a small number of large-scale manufacturing enterprises in the province, so a support structure in the manufacturing industry has not emerged. They are not conscious of developing downstream industries outside of their enterprises. Most of the manufacturing enterprises including SMEs have been mainly obtaining the parts and materials from outside the province and selling outside too.

(3) Decrepitude of machinery and production plants

No matter what scale of enterprise, their production facilities are rather out of date, so they face a problem of low productivity and difficulty in selling products to export markets. There is no wide-ranging impact on preservating the environment, which also requires a large amount of capital for facilities replacement.

(4) Small number of foreign-affiliates in the province

The small number of foreign-affiliated manufacturing enterprises which are regarded as an important factor for district economic development have lost vitality for activating industry. Promotion of investment and export is partially done by them in general.

(5) Lack of management know-how

Management know-how has not taken root in business under the transitional period to a market economy. Commercialization leads to changes in work regulations and introduces new enterprise management, but commercialization itself cannot provide managerial staff experienced in the system of a market economy. Lacking the practical experience of an advanced management, it is difficult for enterprises to pinpoint their own problems.

(6) Lack of business support systems

Business support systems such as financial service, business advisory service and industrial infrastructure are insufficient for small and medium-scale enterprises (SMEs). Demand for these support systems increases in

proportion to the popularity of establishing new businesses, but the efforts of administrative organs cannot cope with the situation.

3.8 Direction of Development of Industry Sector

3.8.1 Development Potentials and Constraints

(1) Development Potential

1) Presence of three key industries

There are three key industries--brown coal mining, electric power generation, and aluminum smelting--in the Konin province. The industries can supply to new industries abundant industrial resources (brown coal and aluminum) and industrial utilities (electric power and heat). At the same time, it is possible for the three key industries to effectively utilize the technologies and skilled labor that have long been accumulated in those industries.

2) Availability of immense, inexpensive industrial sites

The Konin province may be viewed as an agricultural province. Actually, however, large proportions of arable land are not very fertile (over 52% of all the soils belongs to the V or VI valuation class). In the future, they may be converted to industrial sites. At present, land prices are still relatively low.

3) High potential to improve existing industries

The existing industries in the Konin province, including the three key industries, have a potential to improve efficiently in production and management. If they successfully improve their technology and management skills, the existing industries in the Konin province will gain much more international competitiveness.

4) Availability of abundant labor

The Konin province can supply as labor not only young persons fresh from school but also workers having experience and skill, including the potentially jobless or surplus employees in the existing industries.

(2) Development constraints

1) Transition period to market economy.

Like the other provinces, the Konin province is now under way to move to a market economy. This fact incites a delay in privatization of state-owned enterprises, unstable price system, and inactivity of some of the newly organized administrative agencies. All these will hamper the promotion of industries for the time being.

2) Small scale of Konin's economy

The Konin province has a population of some 480,000, many of whom are engaged in agriculture. Because of this, Konin's average per-capita income is relatively low. Besides, some industries require a large scale of market in the vicinity of the production base. That is a reason why industrial diversification does not make progress as expected in the district. Furthermore, the small scale of Konin's economy causes several secondary problems. For example, due to the small economy in the area, there are a small number of branch offices of financial institutions in the area.

3) Shortage of persons having a high academic career

The Konin province has few higher educational institutions and research institutes. Besides, they are small in scale if they exist. It is said that those students who wish to have a college education must move to some other province. This results in the a fact that highly educated people rarely return to the Konin province for employment. In this context, the present shortage of persons with high academic backgrounds can hamper the promotion of industry in the area.

4) Unfavorable image of Konin Province

The Konin province is generally known in Poland as a polluted area. This unfavorable image has arisen in connection with brown coal mining, electric power generation, and aluminum smelting, which are the key industries and big polluters at one and the same time in Konin. Such an unfavorable image can indirectly influence domestic investment in this province and hamper the promotion of industry.

5) No industrial site with well-equipped infrastructure

Potential investors generally expect to get good industrial sites which are well prepared with reliable utilities supply and infrastructure. From this viewpoint, there are no developed industrial sites fully equipped with an infrastructure. This will be a constraint in attracting potential investors to the Konin province.

3.8.2 Development Concept, Strategies and Projects

(1) Development concept

" Diversification and invigoration of industry in the Konin province. "

The participants in PCM workshops held in August 1997 agreed upon a core objective of the industry sector as "Industry is diversified". That is a conversion of "Industry is not diversified," which was the core problem in the problem tree. This is a target or sector development concept in the industry sector. This development direction also stemmed from the result of the field survey and questionnaire survey. The reasons are stated below.

The industry of the Konin province is characterized as an energy-based industry, that is brown coal mining, power generation using brown coal and aluminum smelting works using plenty of electric energy. In fact, these energy-based industries hold a high position in the districts economy in terms of employment, corporate income, investment amount and contribution to society. However, the brown coal reserves will be exhausted by the 2030s or 2040s, and the loss this of basic resource will force significant changes in the electricity and aluminum industries. These situations will strongly demand diversification of industry in the province.

The manufacturing sector itself is not well developed in the province. There is low internal linkage in the sector and a low variety of business types or sub-sectors, while the rationalization being carried out at large enterprises has not met people's expectations so far. As a result, diversification and invigoration of the manufacturing sector including SMEs has also becomes an urgent task for the industry of the Konin province. In conclusion, Konin'

industry needs much more investment, and the structure of industry should be consolidated through diversification and invigoration.

(2) Development strategies

In order to achieve the sector development concept, the Team identified seven approaches categorizing similar means which appeared on in the objective tree agreed in PCM workshops.

(A) Problems of Big Enterprises
(B) Investment
(C) Management of SMEs
(D) Manpower
(E) Technology of SMEs
(F) Profitability of SMEs
(G) Policy and System

The Study Team modified the seven approaches into four strategies from the viewpoint of formulation of feasible implementation schemes.

(Strategy 1) Investment promotion of new manufacturing industries

Approach (B) is transferred to this strategy as it is.

(Strategy 2) Restructuring of enterprises in transition to privatization

Approach (A) is transferred to this strategy as it is.

(Strategy 3) Invigoration of Small and Medium-Scale Enterprises (SMEs)

Approaches (C), (D), (E) and (F) are consolidated into this strategy.

(Strategy 4) Establishment of an institutional support system

Approaches (D) and (G) are consolidated into this strategy.

(3) Strategies and their projects

(Strategy 1) Investment promotion of new manufacturing industries

This clearly indicates the necessity of new investment for diversification and invigoration of industry, especially in the manufacturing sector; therefore this strategy was agreed on at the PCM workshop. Small and medium-scale enterprises have been born since 1989 in the province. It is necessary to on a promote this phenomenon and also promote new export-oriented investment on a larger scale for the province.

From the viewpoint of promoting new export-oriented or medium-and large-scale investments in the province, it seems to be difficult to ask this task of the former state-owned enterprises which are under restructuring, and there are no financial (business) combines in Poland. New investment by local enterprises cannot be expected for the time being. Therefore, it is absolutely necessary to encourage foreign investment in Konin province. In fact, some foreign investors are looking for a site and one of them has already decided to invest in the province. For these reasons, the following projects are proposed.

Project ID-1 "Establishment of a one-stop investment service center"

The objective of the project is to establish a comprehensive investment information service center for potential investors, especially foreign investors, so that potential investors do not need to visit several places to collect information. Promotional activities in foreign countries are also included in this proposal. Details are described in the Project Report.

Hereunder, two prospective projects which make use of local raw materials are proposed for internal and external potential investors. Prospective projects in the three key industries are mentioned in Chapter 2 of the Sector Report.

Project ID-2 "Development of a Konin woodworking industrial park"

Project ID-3 "Construction of foodstuff processing factories"

Project ID-2 is aimed at development of sawmill processing by utilizing cut timber in the province, since about 70% of cut timber has been shipped outside the province without any processing. The project also includes producing a new type of wood-based products by utilizing modern technologies. Project ID-3 is related to revitalization of the agricultural sector, too, and is aimed at development of food processing industries based on the planned production of agricultural products in Konin Province. Details of both projects are also explained in the Project Report.

(Strategy - 2) Restructuring of enterprises in transition to privatization

This strategy aims to revitalize manufacturing industries in Konin Province by improving the competitiveness of local enterprises which are in the process of privatization or already privatized. There are many privatized enterprises as a matter of form, but most of them are still operating under the former management and production know-how. This tendency can be seen especially among enterprises with more than 500 employees in Konin Province.

Re-education of managers must take precedence to achieve the aim of the above strategy. Managers have to learn modern management techniques, advanced production control methods, feasibility analysis methods for plant renovation and so on. As far as the Team surveyed local factories, their productivity seems to be low due to much waste in operation. From this viewpoint, the following project is proposed.

Project ID-4 "Re-education of managers on management and production technologies"

The project is organized to provide an occasion for the management of enterprises to learn ways of doing business by means of a combination of seminars, workshops and site (factories) visits.

There are many talented people among retired employees, especially from large enterprises, and they have already mastered practical technologies. It

is ironically said that talented people tend to change their employment despite a manager's expectation. The team met with many entrepreneurs in the field survey who are spinning off from large enterprises and establishing their own businesses since 1989.

As a problem of the manufacturing sector in the province, the point of "underdeveloped SMEs are akin to the problem of lack of entrepreneurship" was agreed on at the ZOPP workshop. For these reasons, Project ID-5 is proposed for restructuring of enterprises and also revitalization of SMEs. The project aims to encourage new entrepreneurs by providing financial assistance.

Project ID-5 "Establishment of financing assistance scheme for new entrepreneurs"

The next project is the proposed project in the sector of manpower development. However, it is also useful to promote the industry sector for providing job-finding information to job less people who are laid off by restructuring enterprises. Details are described in a part of the manpower development sector and the Project Report.

Project MP-4** "Establishment of a job intermediary center with database"

(Strategy - 3) Invigoration of SMEs

Industry diversification in Konin Province means development of SMEs in a sense. This understanding and the above strategy was agreed on at a workshop. Creation of new SMEs is mainly promoted by Project ID-5; therefore the following projects are aimed at modernization of SMEs.

In general, awareness of SMEs on quality control is rather low in Konin Province, but it might be seen throughout the country. Methodology and understanding on quality control management such as TQC are not diffused well are over the Province so far, but some seminars such as one of ISO 9000 are popular at present. The industry-specific technologies of local enterprises also depend on old-fashioned facilities and production methods.

Therefore, the products can be accepted only in the domestic market, and cannot compete in the overseas market.

As a countermeasure to these problems, the following two projects are proposed. The first one is to execute a traveling clinic service for SMEs, providing management and production technologies guidance on the spot, so that SMEs are able to know how to effect guidance. This is the aim of Project ID-6 and defined as separate guidance to SMEs. Project ID-7, however, aims to promote the technology level in the whole of the manufacturing sector. Details are mentioned in the Progress Report.

Project ID-6 "Execution of traveling clinic services for SMEs"

Project ID-7 "Movement of diffusion for TQM/Kaizen (improvement)"

The following proposed projects under other strategies are also related to Strategy 3.

Project ID-4* Re-education of managers on management and production technologies

Project ID-5* Establishment of financing assistance scheme for new entrepreneurs

(Strategy - 4) Establishment of Institutional Support System

Strategy 4 is defined to support the other Strategies (1 to 3) for increasing their effectiveness. The JICA Report will be a basis for making the action plan for diversification and invigoration of Konin's industry. Several workshops related to the Study have been held so far. Nearly 40 participants for each workshop now have a common understanding of all of the 70 projects on a long list. Meetings by these people should be held periodically after this, and they have to confirm the direction and development policies of Konin Province. Project ID-10 is intended to organize a meeting place or the organs to mold opinions into a consensus and support project implementation.

Project ID-10 "Organization of Economic Forum 2010"

As mentioned in Strategy 3, revitalization of SMEs requires various activities. Therefore, establishing an implementing institution for coordinating these activities is necessary. this institution will also provide other consulting services on management, production and so on. Project ID-8 is proposed from this viewpoint. It is more realistic to materialize the project in order to start providing an information service first, instead of constructing the facilities for the institution.

Project ID-8 "Establishment of SMEs consulting center "

The following project for supporting a specific sector is proposed as an example. The mainstream of the textiles and garments industry, which is the largest industry in the Province in terms of number of enterprises and employment, is garments, especially in the apparel industry. For example, LODZ was originally famous as a textile center; however, the industry turned to producing apparel as a result of excessive competition. The industry is confronted with a sort of crisis.

Most of the apparel enterprises in the province are operating on the consigned basis with foreign partners (OEM basis). That is only piecework based on relativing low wages. Consequently people predict that they might be defeated by China in price competition. For the future existence of the apparel industry in the province, the industry has to turn to a medium and high price (or quality) market from a low price market where China is strongly competitive. Thus, they have to get out of the OEM business and produce products of their own design to increase value-added. This project is proposed for these reasons.

Project ID-9 "Establishment of an apparel design center"

Table 3.8-1 INDUSTRY: DEVELOPMENT CONCEPT, STRATEGIES & PROJECTS

Remarks: (*) indicates duplication with a project that has been listed in the same sector.
(**) indicates duplication with a project that has been listed in a different sector.

Concept	Diversification and invigoration of industry in the Konin Province	
Strategy	**Aims of Strategy**	**Projects**
(1) Investment Promotion of new manufacturing industries	Positively appeal to domestic investors as to the advantage of locating industry in Konin Province and foster a positive image of the Province through sporting events, academic conferences, tourist development, etc. In addition, promote foreign investment by creating a good climate for foreign investors and organizing investment invitation activities.	ID-1 Establishment of a one-stop investment service center ID-2 Construction of a Konin woodworking industrial park ID-3 Construction of foodstuff processing factories
(2) Restructuring of enterprises in transition to privatization	Support and promote the movement of rationalization and reorganization being carried out at large enterprises, thereby enabling them to emerge as really competitive enterprises. The strategy also aims to at general improvement of business administration, effective utilization of Konin's manpower including the potential labors.	ID-4 Re-education of managers on management and production technologies ID-5 Establishment of financing assistance scheme for new entrepreneurs (MP-4) ** Establishment of a job intermediary center with data base
(3) Invigoration of small and medium -scale enterprises (SMEs)	Reinforce the foundations of small and medium-sized enterprises which account for the great majority of the enterprises in Konin, thereby activating Konin's industry and consolidating the structure of manufacturing enterprises	ID-6 Execution of traveling clinic services for SMEs ID-7 Movement of diffusion for TQM/"Kaizen (improvement)" (ID-4) * Re-education of managers on management and production technologies (ID-5) * Establishment of financing assistance scheme for new entrepreneurs
(4) Establishment of institutional supporting system	Coordinate and improve systems for industrial promotion and strengthen functions of executive organs, thereby promoting and backing Konin's industry.	ID-8 Establishment of an SMEs consulting center ID-9 Establishment of an apparel design center ID-10 Organization of "Economic Forum 2010" (LD-13) ** Construction of industrial parks for general

Chapter 4

PHYSICAL DISTRIBUTION AND TRANSPORTATION

Chapter 4 PHYSICAL DISTRIBUTION AND TRANSPORTATION (INCLUDING INFRASTRUCTURE)

Before 1989, every aspect of the physical distribution and transportation system was controlled by the central government and people were not concerned about the marketing system. After the revolution of 1989, the central government decided to split up the huge governmental distribution companies such as PKP and PKS, and in most cases, the transport functions of industries were separated from the companies and used as the core of new transportation companies. At the same time, enormous distribution companies were established and they started business activities.

Both the physical flow of commodities and the system of marketing are described in this report. Through analysis of the channels of distribution, problems of the distribution system and the marketing system in Konin Province will become clear.

Furthermore, to understand the physical distribution and transportation sector we must be aware of the condition of the existing infrastructure. Analysis of trafic infrastructure is a premise of the sector study.

4.1 National Current Condition and Future Plan Concerning Physical Distribution and Transportation Sector

4.1.1 Supervision by Ministry of Transport and Maritime Economy

MTME is in charge of railways, public roads, public transport, sea ports, inland waterways and air transport.

MTME has been restructured dramatically since 1990. It is not too much to say that the main short-term role of MTME is the reduction of its own roles and functions. MTME's responsibility and authority are limited to major policy issues, budget-making, monitoring transport demand and monitoring the financial performance of state-owned transport enterprises. The state-owned enterprises have been introducing independent management systems and budgets. MTME is making an effort to reduce the heavy burden of subsidies to its related enterprises, and is putting priority on vital projects. Recent policy of MTME is concentrated on provision of infrastructure, construction and maintenance of roads. Physical distribution and transportation itself is going to be left to the market economy.

4.1.2 Current Situation and Future Plan of Traffic Infrastructure and Operation of Transport Service

4.1.2.1 Road Transport

(1) Construction of motorways

1) Existing construction of toll motorways

The construction of toll motorways is regarded as one of the most ambitious investment undertakings in the post-war history of Poland. Envisaged is the construction of about 2,300 km of motorways within twenty years at a cost of about nine to ten billion US dollars.
The network consists of four motorways, two east-west, and two north-south, namely;

A-1 (597 km) Gdansk - Torun - Lodz -Katowice - the Czech border

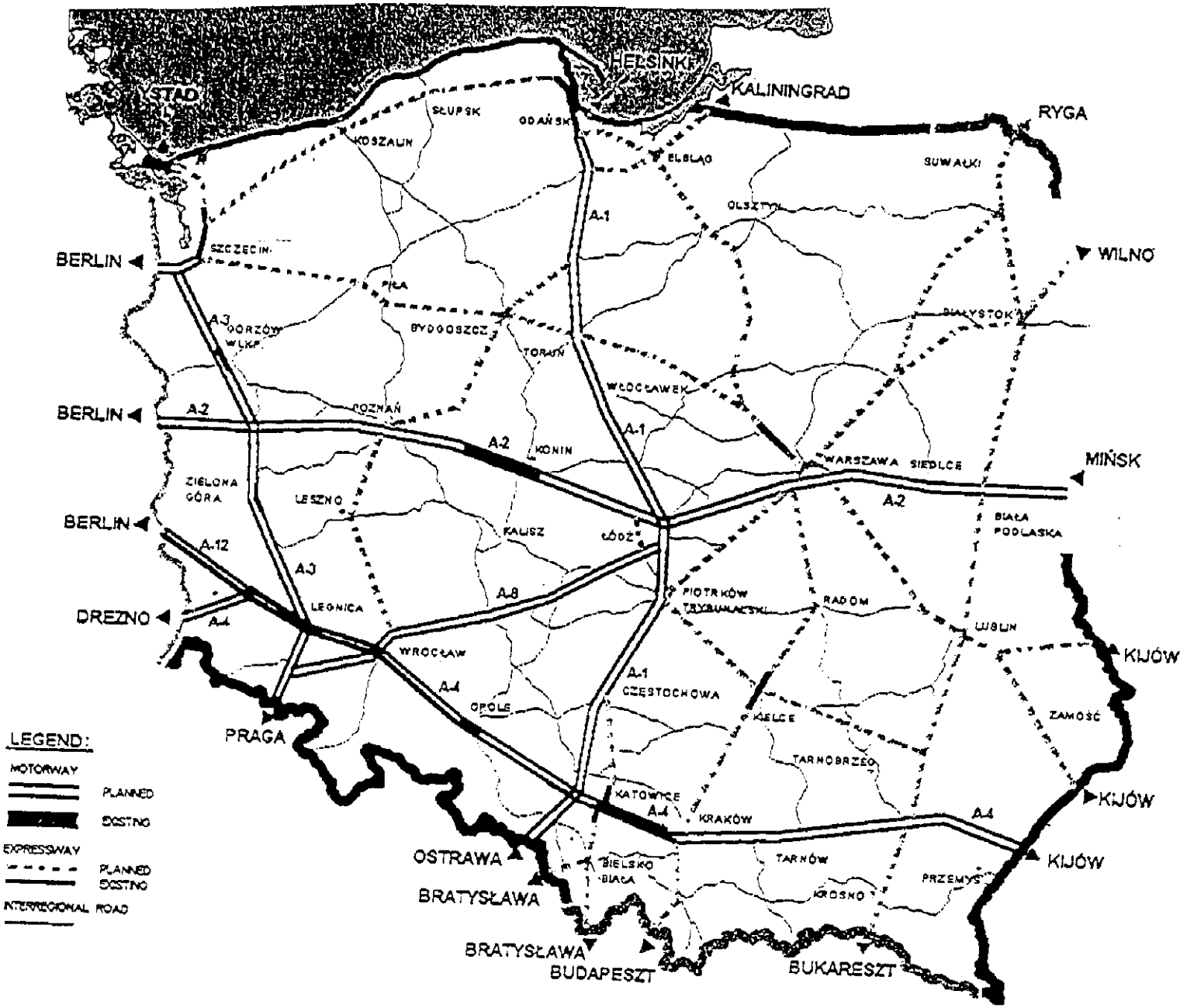
A-2 (626 km) Polish-German border with crossing in Swiecko, then running onwards to Poznan - Konin - Warsaw and Belarussian border

A-3 (365 km) Szczecin - Gorzow - Zielona Gora - Legnica Lubawka - Czech border

A4/A-12(738 km) Polish and German border with crossing in Jedrzychowice, running onwards to Wroclaw - Opole - Gliwice - Katowice - Krakow - Rzeszow - Ukrainian border

The master plan of the main road network is shown on the next page.

Figure 4.1-1 MASTER PLAN OF MORTERWAY AND EXPRESSWAY NETWORK IN POLAND



As the map indicates, only the length of 50km is open to traffic at present. A2's route has been opened from Poznan to Konin for several years, however, the rest of it has been left incomplete. In 1994, the government resumed the motorway construction projects. Motorway A2 is regarded as the most significant route and has first priority among the motorway construction projects. Completion of A2 is one of the conditions necessary for Poland to be admitted to the European Union. The project has been promoted by the central government following the procedure mentioned below.

2) The role of the agency for motorway construction and operation

The Council of Ministers determined that motorways should be built and operated as toll roads. The Act of 27 October 1994 on Toll Motorways designated the MTME as the chief authority responsible for construction and operation of motorways. The Minister of Land Development and Construction also has authority for motorways projects. In order to consider opinions about policy for motorways, the Motorway Council was organized.

At the same time, the Agency for Motorway Construction and Operation, (hereafter called the "Agency") was established under supervision of MTME. The main duties of the Agency are as follows;

To conduct studies on motorways, including their impact on the environment;

To cooperate with the authorities responsible for land development, national defense, environmental protection and others.

To elaborate criteria for the evaluation of proposals in the tender process and hold tenders.

To control the construction and operation of motorways

The Agency conducts financing activity on its own account. Revenues of the Agency consist of proceeds from the Agency's activities, proceeds from concession fees and proceeds from other sources. The Agency also receives grants that are set annually in the state budget for motorway construction projects such as studies and documentation, acquisition of real property, indemnification annual dues and fees for the protection of farm and forest lands, integration and exchange projects, technical and environmental preservation research and preparation of the results thereof.

However the current motorway construction funding amounts to only 15% of the estimated construction cost. Therefore the promotion of private investment and establish a fund is one of the most significant roles of the Agency.

3) The location of the motorways

As shown by Figure 4.1-1, Master Plan of Motorway Network, the proposed routes of the motorways were based on the present and prospective traffic volume. The master plans evaluated the economic effectiveness of motorways, recommended the number of lanes, and prioritized construction in the most efficient way.

After accepting the master plans prepared by several study teams, the government has been translating the plan into reality.

According to the Act, after consideration of environmental issues, voivode offices make a decision on the detailed route of the motorway, inform other parties about its decision, and gives placing notices to the gmina offices. As far as acquisition of land required for the motorway is concerned, after the initiation of expropriation proceedings upon the request of the President of the Agency, the voivode issues a permit for the immediate take-over of the land designated for the traffic lanes of a motorway. Voivode offices by ordinance have the authority to decide on traffic lanes and acquisition of land. However, the general location and procedures might be mostly controlled by the organizations higher in the government hierasely. It is important to put the motorway construction project to practical use for regional development.

(2) Public road network

1) Road administration and classification

The General Directorate of Public Roads (GDDP) has overall responsibility for national roads. 17 regional directorates are subordinated to the GDDP Road Network Development Planing Office (BPRSD) contributes suggestions for monitoring and planning to GDDP. Polish roads are categorized according to four types and are supervised by each responsible organization. The next table indicates the categories of roads and their length.

Table 4.1-1 PUBLIC ROAD NETWORK CATEGORIZED BY LEVEL OF ADMINISTRATION

Category	Length in km		
	Out of town	Town	Total
National roads	43,018	2,657	45,675
Provincial roads	114,470	14,214	128,684
Communal and municipal roa	147,667	35,716	183,383
Company roads	16,086	1,162	17,248
Total	321,241	53,749	374,990

Source : BPRSD, as of Dec. 31,1996

The budget for national roads is provided by the central government and the of budget for provincial roads is allocated from the central government to the Voivode offices. The communal and municipal roads is done using funds from the gmina budgets. Most company roads are going to be absorbed into the category of municipal road's within a year. The table makes the length of national roads seems shorter, however, because the volume of traffic is much higher and the width of roads is broader, the maintenance is much higher than municipal roads.

In addition, there is a classification according to the roads' quality and width. The following table given the length of each class of inter-regional national road in 1996. Motorways in Poland are generally of dual two-lane roads with a 120 km/hr design speed. The use of motorways is restricted to motor vehicles capable of maintaining speed of at least 40 km/hr and stopping on the hard shoulders is limited to emergencies only.

Table 4.1-2 LENGTH OF INTER-REGIONAL NATIONAL ROAD, BY ROAD CLASS (as of 1996)

Road Class	Length (km)	%
Motorway	258	0.6%
Express road	263	0.6%
Dual carrigeway	803	1.9%
Single carrigeway	3,232	7.5%
Others	38,462	89.4%
Total	43,018	100.0%

Source : BPRSD

2) Condition of national roads

At the present time, the major difficulty forced by GDDP is the maintenance of existing roads. According to the assessment of the

technical inspection of road surface, which is indicated in the table below, 37% of regional roads are in need of immediate repair, and 21% of roads are regarded as require repairing within two or three years.

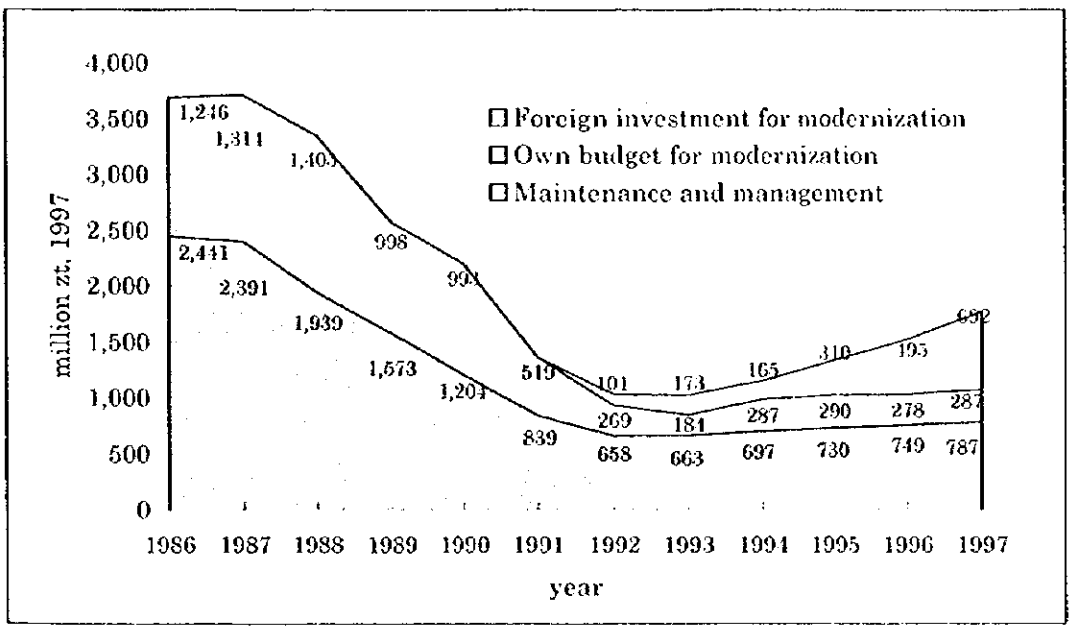
Table 4.1-3 ASSESSMENT OF THE TECHNICAL INSPECTION OF PAVEMENT OF REGIONAL NATIONAL ROADS

	1994	1995	1996	
	%	%	length	%
Bad condition	23%	36%	15,917	37%
Unstisfactry condition	57%	44%	18,068	42%
Good and satisfactory condition	20%	20%	9,034	21%

Source : BPRSD, 1997

Thus, the ratio of bad-condition roads is gradually increasing. In particular inter-regional national roads are getting worse if compared with urban areas. Fiscal constraints mean that the national budget can not provide funds for repair of inter-regional roads. The next figure illustrates the national budgets for inter-regional roads, since 1986. Most roads in Konin Province are classified as inter-regional roads.

Figure 4.1-2 EXPENDITURE ON REGIONAL NATIONAL ROADS

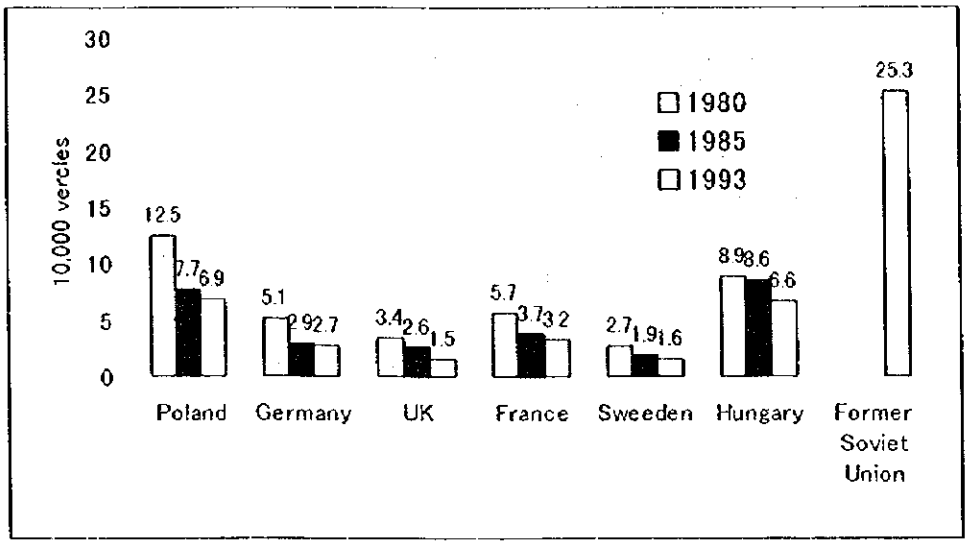


Source : BPRSD,1997

Although the budget for modernization and new investments is increasing due to acquisition of foreign funds, the expenditure for maintenance of roads has not recovered yet. In recent years, road durability has been getting worse because of heavy rain, floods, hot and long summers and transport demand that has increased beyond expectations.

It is said that road conditions are causing an increasing number of accidents in local areas. The incidence of fatal accidents on inter-regional roads is higher than on urban roads. Such a situation is a serious one for Poland. The next figure is a comparison of the number of accidents per 10,000 vehicles in other European countries.

Figure 4.1-3 FATALITIES IN ROAD ACCIDENTS IN POLAND AND OTHER EUROPEAN COUNTRIES

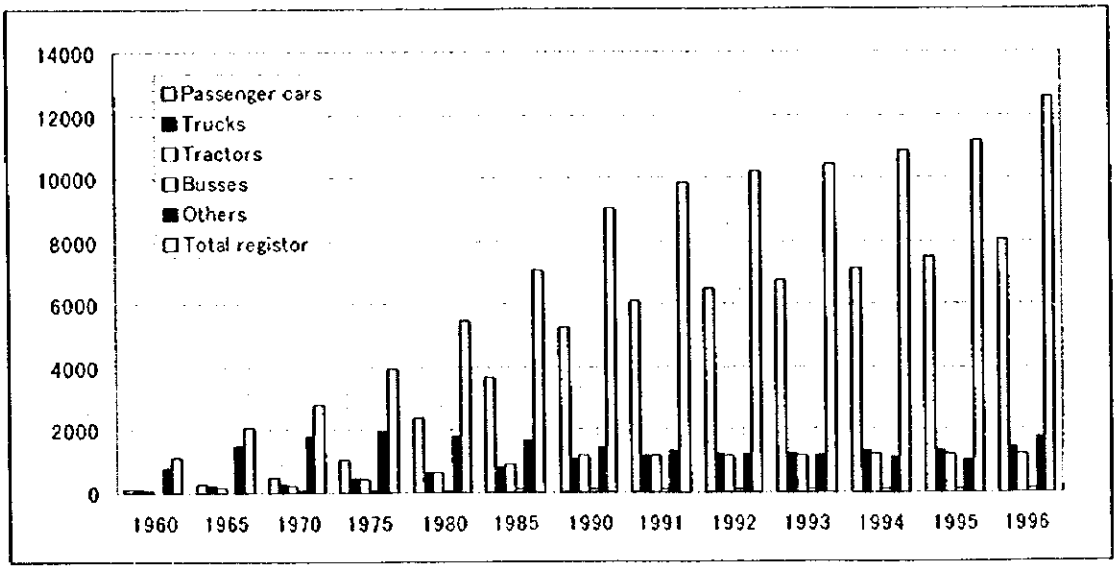


Source : BPRSD,1997

Figure 4.1-3 shows that the probability of death accidents in Poland is 3 times higher than in western European Countries.

The next figure shows the number of registered vehicles in Poland.

Figure 4.1-4 NUMBER OF VEHICLES IN POLAND



Source : Transport Results of Activities for 1996, GUS

During the last seven years, the average number of newly registered vehicles was 583,000. It has been estimated that the total number of passenger cars, buses and trucks will reach 14,719,000 in 2005. The government is being pressed to improve the traffic and roads infrastructure immediately.

(3) Operational condition of road transport

1) Volume of road transport

Road transport is the most important mode for in Poland transport of goods. According to the statistical data in "Transport Results of Activities for 1996, 1,087 million tons of goods were transported in 1995, and 1,092 million tons were transported in 1996. Due to economic transformation that started in 1990, the volume of transport at first declined drastically, but, it has been stable for the last five years. The declining of volume after 1990 might have been the result of increasing efficiency of transport.

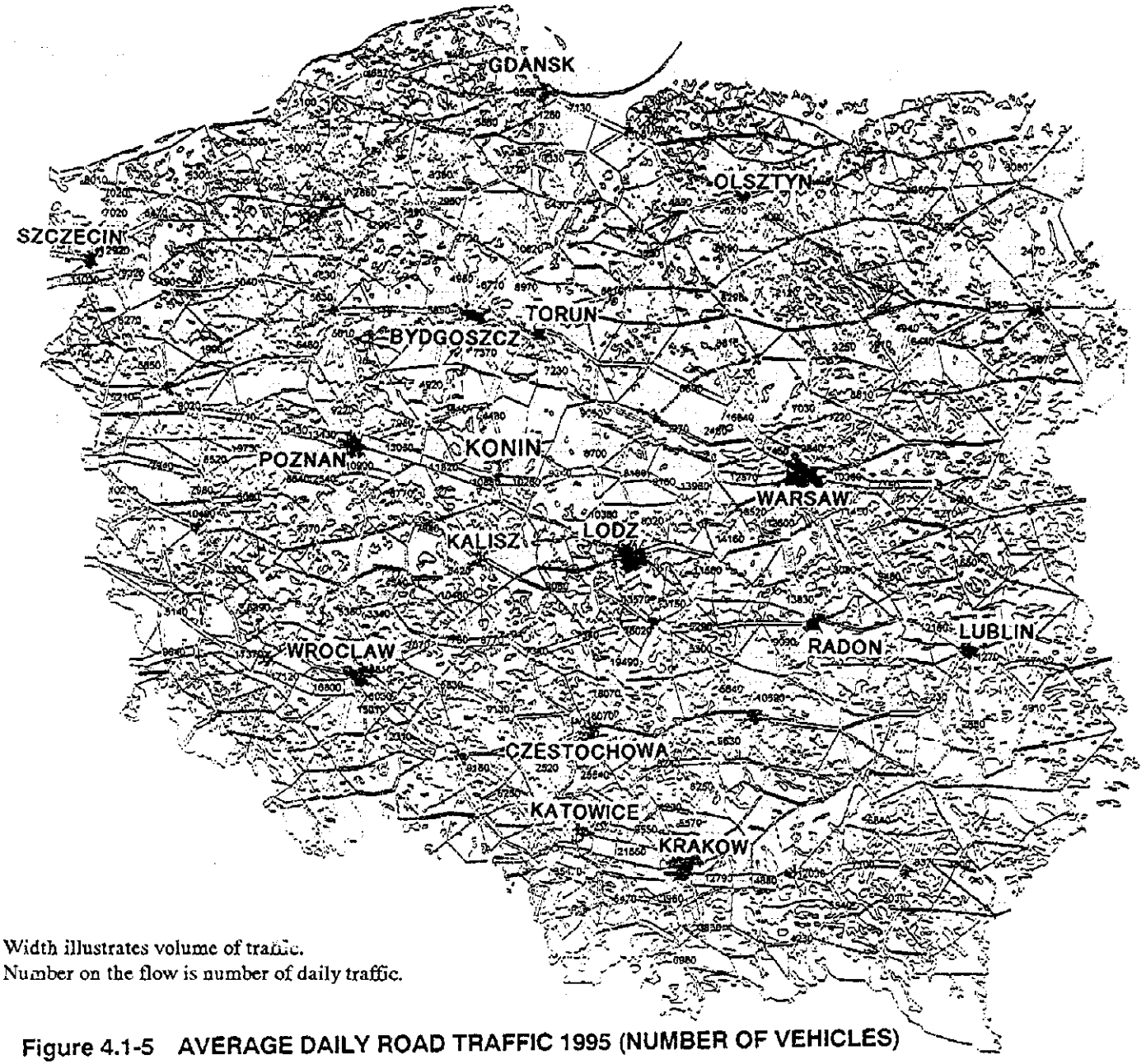
Of the total amount of goods transported by road, 29% was transported by vehicles owned by enterprises, the main type of activity of which was road transport, and 71% were goods transported by enterprises, the main activity of which was other than road transport such as manufacturing, producing, processing and so on. Most road deliveries required travel over short

distances, as the reason for the shipment was after deliveries of materials, raw materials and semi-manufactured products to industries, etc. As the result of the restructuring of the Polish economy, the role of road transport has been steadily diminishing since 1992, but this mode of transport still dominates the freight transport sector.

2) Average daily road traffic

Figure 4.1-5 shows average daily road traffic in terms of gross number of vehicles, as investigated by MTME in 1995. This kind of research which counts the number of vehicles passing check points is supposed to be executed every five years. Daily volume of east-west traffic through Konin Province was over 10,000 vehicles.

In addition, the report "Development of Traffic Forecasts for International Rail Corridors," which was prepared by BCECOM French Engineering Consultants, forecasts that the average daily road traffic will increase under the influence of GDP, mobility, motorization, population, regional economies, local economies and the economies of neighbor countries. The forecast of average daily road traffic in 2020 is indicated in Figure 4.1-6. The estimation of east-west traffic volume through Konin City is 37,710 vehicles.



Width illustrates volume of traffic.
Number on the flow is number of daily traffic.

Figure 4.1-5 AVERAGE DAILY ROAD TRAFFIC 1995 (NUMBER OF VEHICLES)

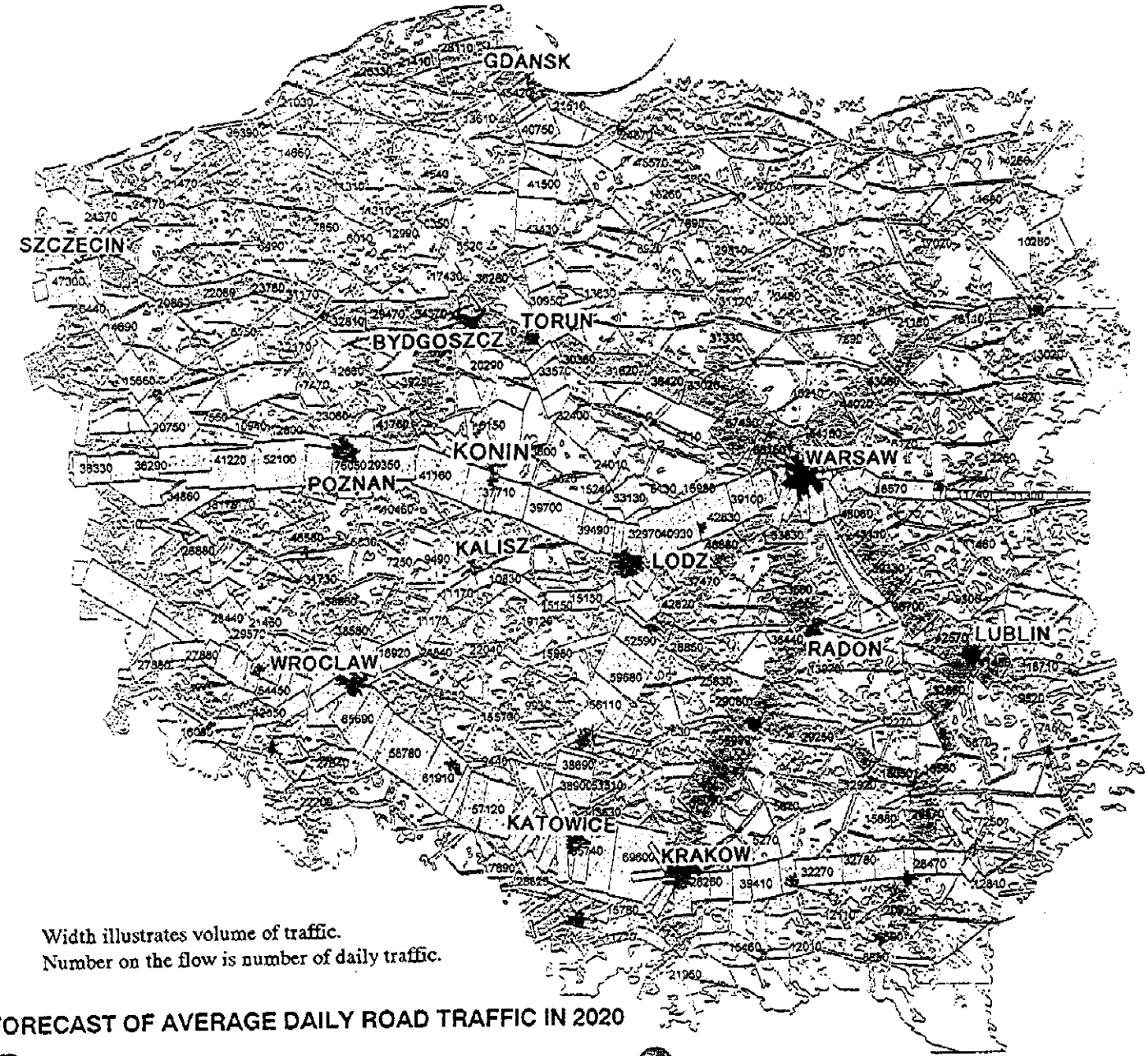


Figure 4.1-6 FORECAST OF AVERAGE DAILY ROAD TRAFFIC IN 2020

4) Structure of transport companies

The following table shows the number of transport companies classified by their size. Nearly 90% of transport companies are private by owned, and about 83 % of private companies are small companies, which have five or fewer vehicles. Although the ownership of transport companies owning over 100 vehicles is not specified in the table, below, they can be regarded as state owned.

Table 4.1-4 RATION OF TRANSPORT COMPANIES CLASSIFIED BY ITS SIZE

Form of ownership	Number of vehicles						Total
	n.a.	up to 5	6-9	11-50	51-100	over 100	
State owned	0.00	1.01	0.25	2.02	2.77	0.00	6.05
Private	5.04	79.35	2.27	2.52	0.50	0.00	89.68
No answer	0.50	2.76	0.00	0.00	0.25	0.25	3.76
Total	5.54	83.12	2.52	4.54	3.52	0.25	99.49

Source: Motor Transport Institute

Tables 4.1-5 and 4.1-6 show major aspects of analyzed transport companies. Since there is no registration of freight transport companies, except for those engaged in international transport, the classification of transport companies is rather difficult. Note that, this survey allowed plural answers.

Table 4.1-5 ACTIVITY OF TRANSPORT COMPANIES

Activity	Responding companies (%)
Domestic transport	85.64
International transport	14.36
Forwarding	3.27
Loading works	4.30
Supporting activity	5.54
Others	6.80
No answer	1.76

Source : Motor Transport Institute, 1997 second quarter

Table 4.1-6 LOADS OF TRANSPORT COMPANIES

Kind of load	Companies (%)
Mass goods	26.20
Small articles	29.72
Construction material	37.28
Agricultural products	12.09
Crude oile & products	1.26
Metals & products	9.82
Woods & products	16.88
Dangerous materials	2.77
Others	14.11

Source : Motor Transport Institute, 1997 second quarter

Table 4.1-7 shows road transport demand by kind of load in region 3 where Konin Province is located. In this region, demand for carrying agricultural and metal products is relatively higher. Since region 3 includes Poznan and Bydgoszcz, it is not possible to specifically comment about transport companies in Konin Province. In order to understand the situation regarding local transport companies in Konin Province, the Team distributed questionnaires to some of them. Results of survey are discussed in "4.3 Social and Geographical Conditions of Konin Province in the Physical Distribution and Transport Sector".

Table 4.1-7 KINDS OF LOADS OF TRANSPORT COMPANIES, BY REGIONS

% of remark / Kind of load	Regions								
	1	2	3	4	5	6	7	8	9
Mass goods	27.9	19.1	39.6	28.6	27.3	19.6	-	18.1	28.2
Small articles	25.6	38.1	24.5	33.3	18.2	32.6	-	29.2	30.8
Construction material	37.2	23.8	41.5	31.0	50.0	43.5	-	38.9	38.5
Agricultural products	7.0	4.8	13.2	4.8	9.1	6.5	-	4.2	18.0
Crude oile & products	2.3	0.0	0.0	0.0	4.6	0.0	-	0.0	2.6
Metals & products	2.3	0.0	13.2	14.3	13.6	10.9	-	12.5	10.3
Woods & products	23.3	23.8	9.4	9.5	9.1	17.4	-	8.3	15.4
Dangerous materials	4.7	0.0	3.8	7.1	4.6	0.0	-	4.2	5.1
Others	18.6	14.3	11.3	16.7	22.7	13.0	-	19.4	10.3

Source : Motor Transport Institute, 1997 2nd quarter

*reference of region number is on the last page of chapter 4.4

5) Reorganization of state owned transportation companies

As mentioned above, the road cargo transport market has been entirely liberalized. Competition among truckers has intensified, and consequently, truckers have been struggling to survive.

The state-owned companies, PKSs, are in the process of reorganization. The number of employees of PKS used to be more than 180,000 when PKS was operating 90,000 vehicles, including buses and trucks. PKS's organization was managed on the basis of dividing the nation into 19 districts.
After 1990, PKS was and some responsibility was also transferred to Voivode offices. Although all PKSs -- there are more than 300 -- are still state owned, because of the function of passenger transport is subsidized by the government, the cargo transport sector has been operating under the market system.

SPEDPOL, which used to be a state-owned freight company (PSK), was established in 1997 under an agreement between the Polish and Swedish governments. Bilspedition Transport & Logistics AB (BTCAB), of Sweden, is one of the biggest forwarding companies in Europe. It has provided capital, Volvo vehicles and computers, but also the logistic system for transport and forwarding business, to PSK. A huge domestic network has been created, with 30 main terminal branches. At present, 1,400 employees work for SPEDPOL, that owns about 1,000 trucks.

4.1.2.2 Rail Transport

(1) Railway network and development plan

The total length of railway lines in use at the end of 1995 was around 24,000 km, 327 km shorter than in 1994. Railway transport, especially passenger transport, has been replaced by bus traffic and private motor transport and unprofitable lines have been canceled gradually since 1990.
Further, the modernization of the rail network for international and combined lines is considered to be important.

According to "Polish Transport Policy", a dourness released by MTME in October 1996, the modernization of E-20 line (Warsaw-Terespol section),

E-65 (Gdansk-Warsaw-Katowice-Zebrzydowice) , E-59 (Swinoujscie-Szczecin-Poznan-Wroclaw), and E-30 (Zgorzelec-Wroclaw-Katowice-Przemysl) will be done supported by the PKP's financial sources, the European Investment Bank, European Bank for Reconstruction and Development and PHARE grants. Figure 4.1-7 below shows the main rail roads which are planned to be renovated.
The amount of rolling stock will be increased by more than 8,000 goods carriages, and more than 300 passenger carriages, 50 high-speed engines and 195 electric trains.

Figure 4.1-8 presents the total annual freight flows of 1995 calculated by the MTME. The freight volume between Gdansk and Katowice, Szczecin and Wroclaw shown in it seems huge. These railways specialize in bulky cargoes such as coal from the south. The report, "Development of Traffic Forecasts for International Rail Corridors", estimated that the annual freight flows of these lines will decrease a little, no later than 2020.
Incidentally, the rail lines for bulky cargo transport between Katowice and Gdansk pass through the eastern part of Konin Province. However, practically all cargoes pass the small stations in Konin Province without stopping.

E-20 is regarded as the most important line for international transport between Western Europe and Russia. It passes through Konin Province, and therefore, is expected by local people to contribute to the development of the Konin Province. However, during the study, it was found that the central government does not have any specific plan for Konin province at the moment. From the point view of international railroad transport, as a big potential market.

The conditions of and the potential for railways in Konin Province are described in another section below.

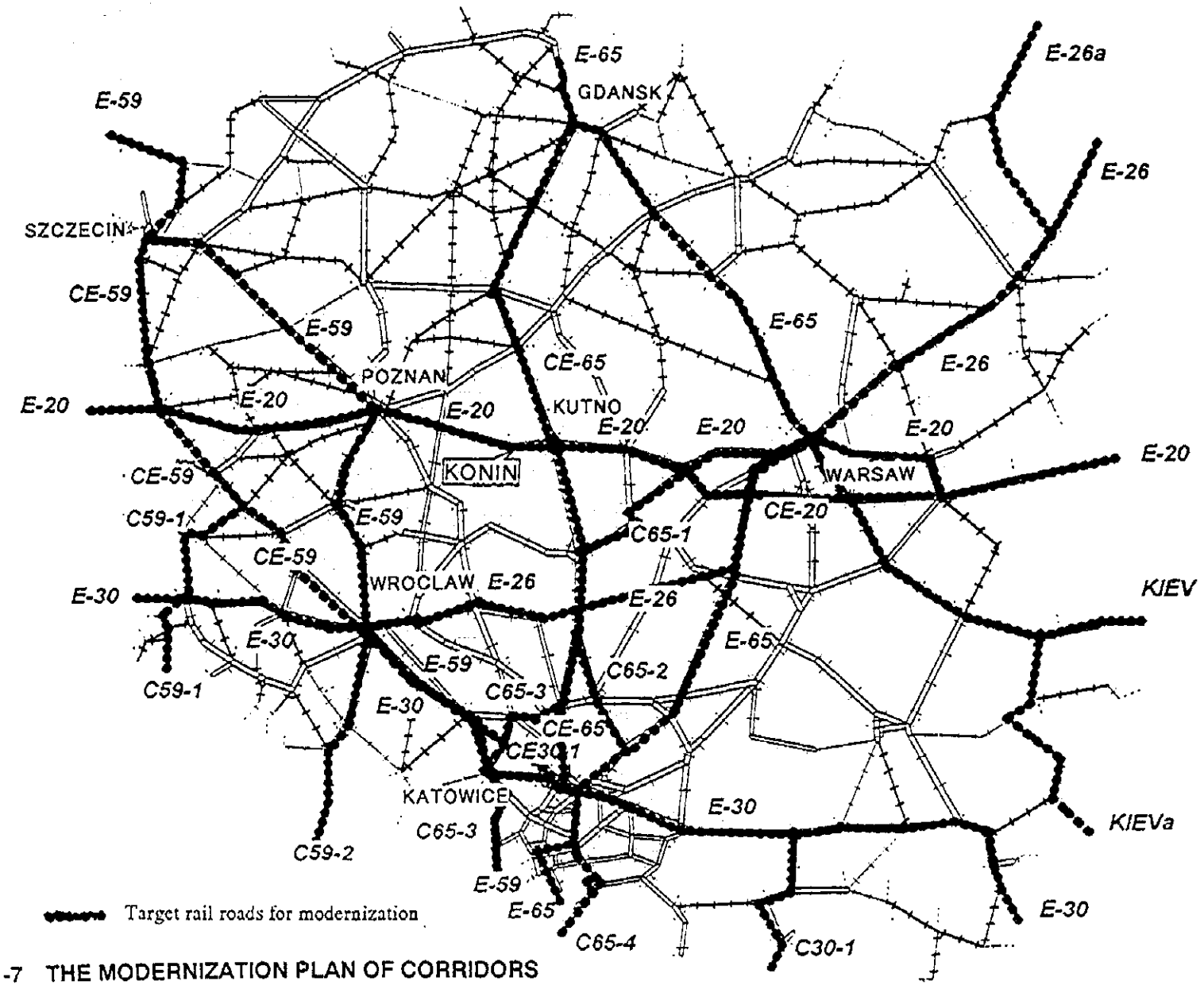


Figure 4.1-7 THE MODERNIZATION PLAN OF CORRIDORS

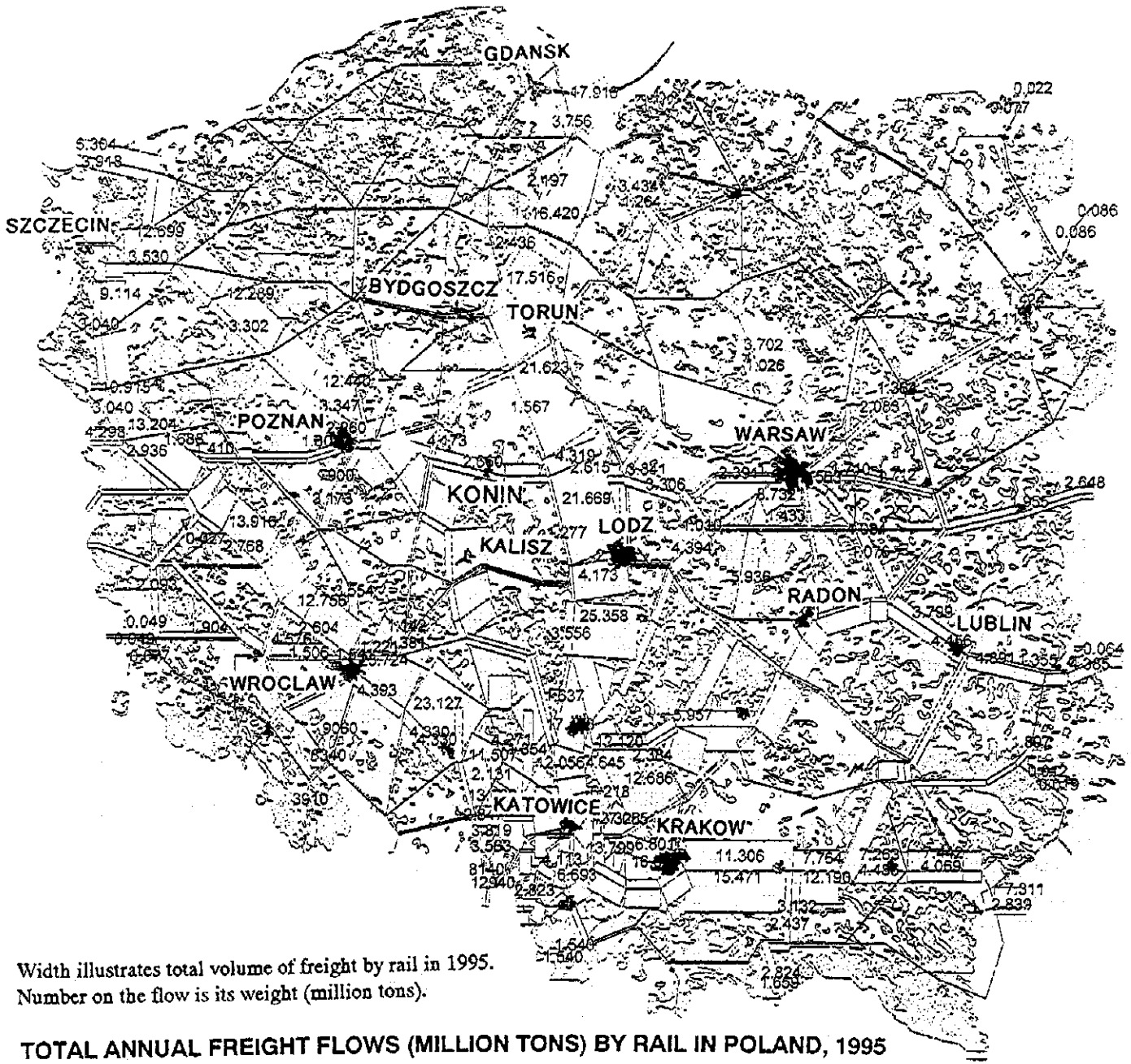


Figure 4.1-8 TOTAL ANNUAL FREIGHT FLOWS (MILLION TONS) BY RAIL IN POLAND, 1995

(2) Role of railway transportation in Poland

Although the PKP has operated at a loss, the railroad has been well used both for passenger and freight. Even if motorization is going to increase, the role and responsibility of railway transportation will still be significant for Poland.

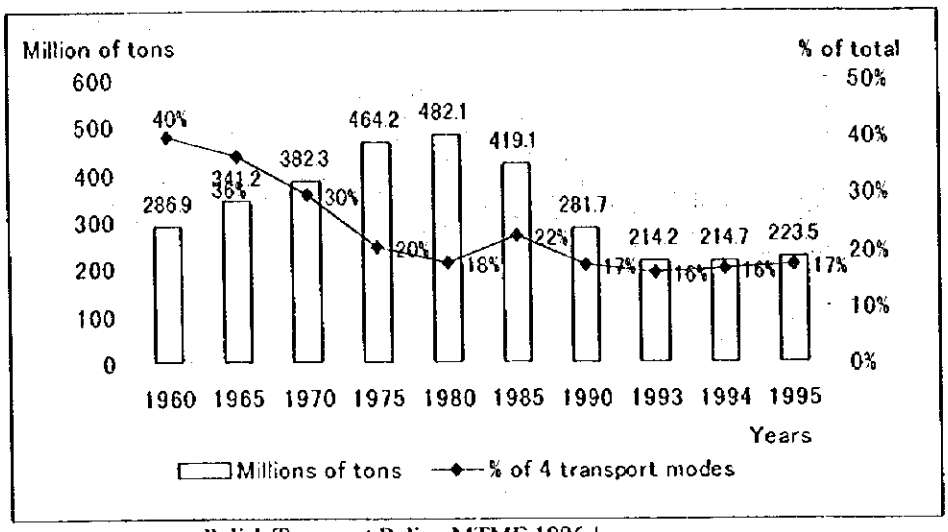
Figure 4.1-9 is statistical data for railway transportation. The volume of railway transportation in recent times has been rather small when compared with the volume in 1960, but, the ratio of railway freight transport volume has never been below 15%. In addition, from Figure 4.1-10, regarding ton-km of freight, 51.3% of total freight ton-km was carried by train in 1995.

Figure 4.1-10 compares the utilization of four means of transport by ton-km. It shows a decrease in railways' share. On the other hand, it is evident compared with the tonnage in Figure 4.1-9 that railway transportation is used especially for rather long distance transport when.

The volume of railway transport in 1990 was 83.5 million tons-km. It declined to 57.7 million in 1992 and after this record low, the utilization of railways increased to 69.1 billion ton-km in 1995. In 1996, the volume decreased a little because of the recession, caused by change in the exchange rate between the Polish zloty and the DM.

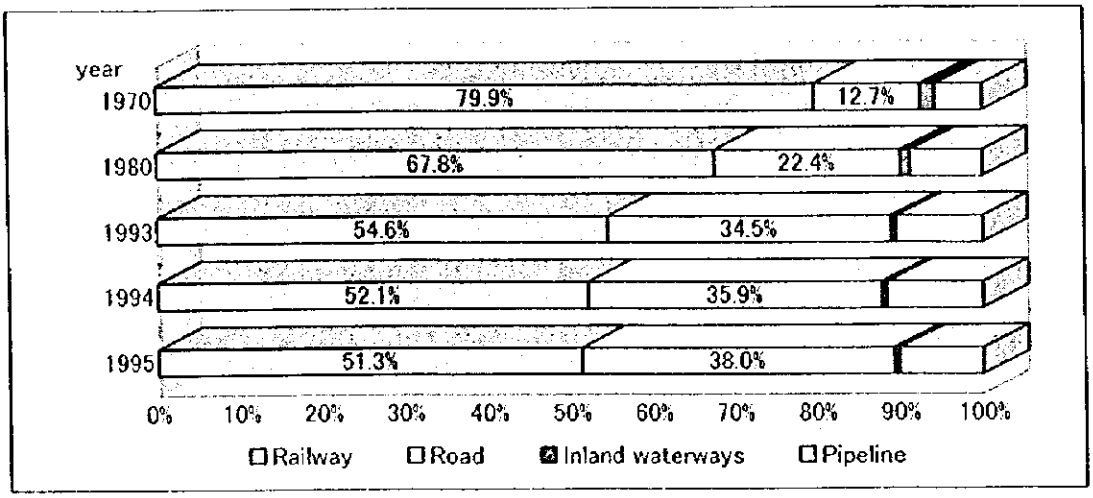
Although the government, partly out of concern for environmental issues, encourages industries to use the railroad, further motorization is certain.

Figure 4.1-9 RAIL TRANSPORTATION OF GOODS IN POLAND IN 1960 - 1995 (in millions of tons and % of total)



source : Polish Transport Policy,MTME,1996 /
Transport Results of Activities for 1996,GUS

Figure 4.1-10 SHARE OF FREIGHT TON-KM 1970 - 1995



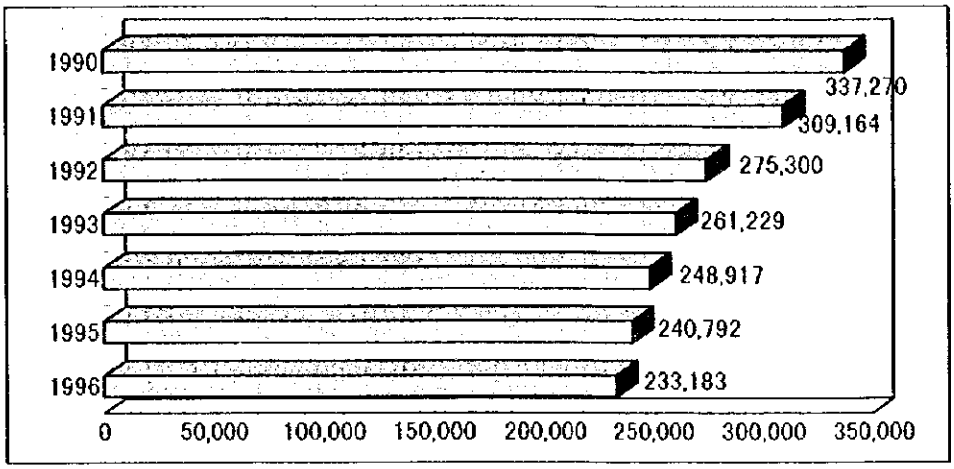
source : Annual report of PKP, 1997

(3) Organization of PKP and its restructuring

The organization of the Polish State Railway Company, PKP, has changed drastically, and is still in the process of restructuring.

The number of employees gradually decreased from 337,270 in 1990 to 233,183 in 1996. PKP has been making efforts to make their activities more efficient.

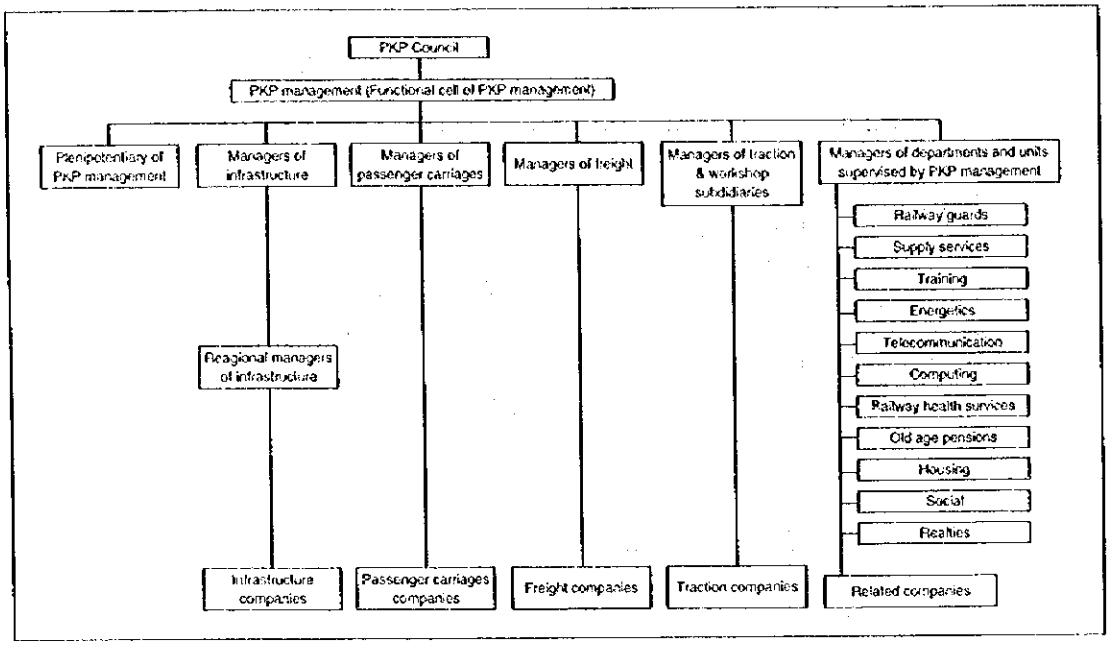
Figure 4.1-11 NUMBER OF PKP EMPLOYEES, 1990 - 1996



source : Annual Report of PKP, 1996

PKP has only reduced the number of employees, but is also in the process of reorganizing the management system. The division going to change from the current eight main departments of Warsaw, Poznan, Katowice Krakow, Wroclaw, Szczecin, Gdansk and Lublin to 30 units by the end of 1998. Most functions of management will be transfered from the central office to regional departments and each departments will be required to take responsibility for operation and budgeting. Through the process of restructuring, Konin Province office of PKP will be absorbed into the new Poznan region unit, the same as before. The following figure is the future organization scheme of the PKP which was released to the public in the 1996 annual report. Each regional PKP unit would be reformed in compliance with this scheme.

Figure 4.1-12 THE FUTURE ORGANIZATION SCHEME OF PKP



Source: Annual report of PKP, 1996

4.1.2.3 Inland Water Transport

The Polish inland waterway system was developed a long time ago. It used to be utilized for the transport of agricultural products, then to cope with coal mining and industrial development, the inland waterway system was greatly expanded.

The main inland waterway system in Poland consists of the following;

a. The Odra River from Kozle to Dabie Lake
b. Gliwicki Channel (41km) and Keedzierzynski Channel (6km)
c. Warta River, connecting the Odra River and Wisla River through Warta, Notec, Bydgoski, Brda (294km), and the stretch of the Warta River from Lubon near Poznan to Notec link up with the Odra (185km).
d. A short stretch of the upper Wisla and a stretch of the lower Wisla from Plock to Wloclawek (50km) and from the mouth of Brda to the sea (169km)

Rivers are classified into four classes by their capacity.

Figure 4.1-13 shows the Inland Water Transport Network, this is from a dourness prepared by a JICA study team in 1992.

Inland water transport has been under-utilized in recent times. The volume of freight by water transport calculated in ton-km in 1996 was nearly one third of the volume in 1980.

Table 4.1-8 UTILIZATION OF INLAND WATER TRANSPORT, 1975 -1996

Unit \ Year	1975	1980	1985	1990	1995	1996
Million ton-km	na	2,375	na	1,034	876	851
Thousand tons	14,893	22,245	14,537	9,795	9,306	9,000

Source : Transport Results of Activities for 1996, Small year book 1997

The Odra river has attracted a great deal of attention recently because of natural disasters, namely serious floods caused by heavy rain. The government is obliged to consider means of dealing with natural calamities. Furthermore, the Odra river has been a sensitive political problem as it is the border between Poland and Germany. Recently, both countries began consultations on the matter of utilization and management of the Odra river, which flows from Wroclaw, Szczecin to Berlin via a the canal. It is also said that the Odra river has great potential for transporting international trade.

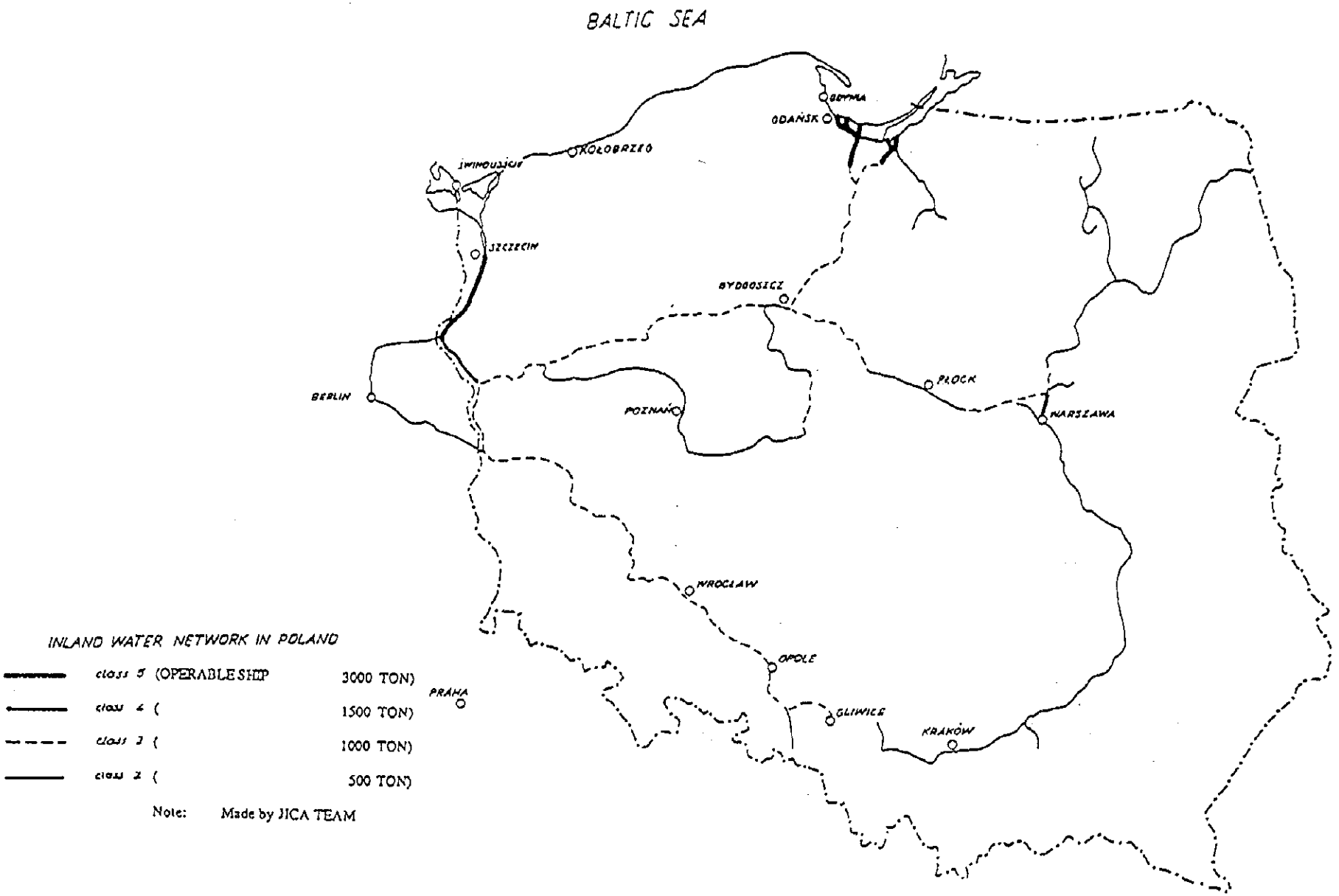


Figure 4.1-13 INLAND WATER TRANSPORT NETWORK

4.2 Regulations Concerning Physical Distribution and Transport

4.2.1 The Type of Regulation

Since 1990, most regulations concerning this sector have been amended in order to adjust to the market economy. In the process of deregulation, most transportation laws have been annulled. In outline, regulations are now classified into the following types.

(1) Regulation for state-owned transportation companies

The PKP's roles, property, finances, organization and by-laws were amended by the July 6 1995 Act.
A specific PKP Act does not exist any more. PKP and other state-owned transportation companies conform to general regulations for state-owned companies which mainly cover their shares and assets.

(2) Regulation regarding motorways

There are several Acts concerning Motorways. The law indicates the procedure to be used for Motorway construction projects including the responsibility for each activity, as mentioned earlier in this report.

(3) Transportation laws

This Act, issued in 1984, was amended in 1991 and 1994 and it is intended to amend it again at the end of 1997.
The regulation mentions the condition of vehicles, registration of vehicles, driving licenses, license of passenger transport businesses, traffic rules and so on.
There are no regulations restricting the business of freight transportation. Anybody who has a driving license can be involved in the transportation business under general traffic regulations. Even if an entrepreneur has no driving license he/she can establish a transportation company without specific transport licenses. The transportation companies are regarded as normal companies, so the price of freight also depends on the market economy.

(4) Laws for international transportation

Although there are no specific regulations for domestic transportation, there are strict regulations for international transportation. The main regulations are as follows;

- Quality of vehicle is regulated followed by foreign countries
- Certification is needed to get international licenses
- There are three kinds of permit such as permanent, temporary and single use
- Charges for international licenses are collected and used as funds for Motorway construction projects

International license are issued by the International Transportation Union supervised by MTME. The Union requires a membership fee. It does not function as a pressure group and also has no information service.

4.2.2 Role of Voivode Office in Regulating Transport

Voivode offices have no special authority and obligation for this matter. In line with the law, they just collect tax.
Policemen are responsible for traffic control.

4.3 Social and Geographical Conditions of Konin Province in the Physical Distribution and Transport Sector

4.3.1 Traffic in Konin Province

(1) Volume of traffic

1) Road traffic in Konin

As shown by Figure 4.1-5a "Average Daily Road Traffic 1995", approximately 10,000 vehicles pass through Konin Province in the east-west directions. According to Figure 4.1-5b "Forecast of Average Daily Road Traffic in 2020", the volume of east-west traffic will reach 37,000 vehicles per day.

Flow from Konin - Turek - Lodz, 5,000 vehicles, is smaller than expected. The volume of traffic between Konin and Lodz was estimated by a previous forecast to increase to 39,000 vehicles, i.e., it would be about five times higher than in 1995. This forecast is based on the assumption that the construction of motorway A-2 would be completed as scheduled.

The north-south line from Gdansk to Lodz turns away from Konin province towards Krosniewice in the adjacent province. Approximately 8,700 vehicles on north-south road E-75, and 9,000 on east-west road E-30, use the cross road in Krosniewice.

The volume of daily road traffic in Konin province is presented in Figure 4.3-1. This survey was implemented in 1995 by MTMA.

According to the MTMA, the percentage of heavy-goods vehicles (trucks) passing through east-west road of Konin are estimated to be about 25% of all trucks using that road. This means that 2,500 to 3,000 trucks paned between Warsaw and Poznan , on average. The percentage and number of trucks on this road is relatively high in this east-west road.

There is a survey of traffic from foreign countries.

Figure 4.3-2 shows the volume of foreign vehicles, based on the license plates on the bodies, in 1990. According to this figure, 1,470 vehicles (24% of all traffics) passing through the Konin area had foreign plates. The number of vehicles in 1990, estimated at 6,125, was half of the number in 1995, 11,820. If the ratio of foreign vehicle were to be the same as in 1990, the estimation of the volume of foreign traffic in 1995 is 2,837.

From the above two surveys, the number of long-distance trucks that use the east-west road in Konin is estimated at 2,500 to 3,000 per day.

Figure 4.3-1 THE VOLUME OF ROAD TRAFFIC IN KONIN PROVINCE, 1995

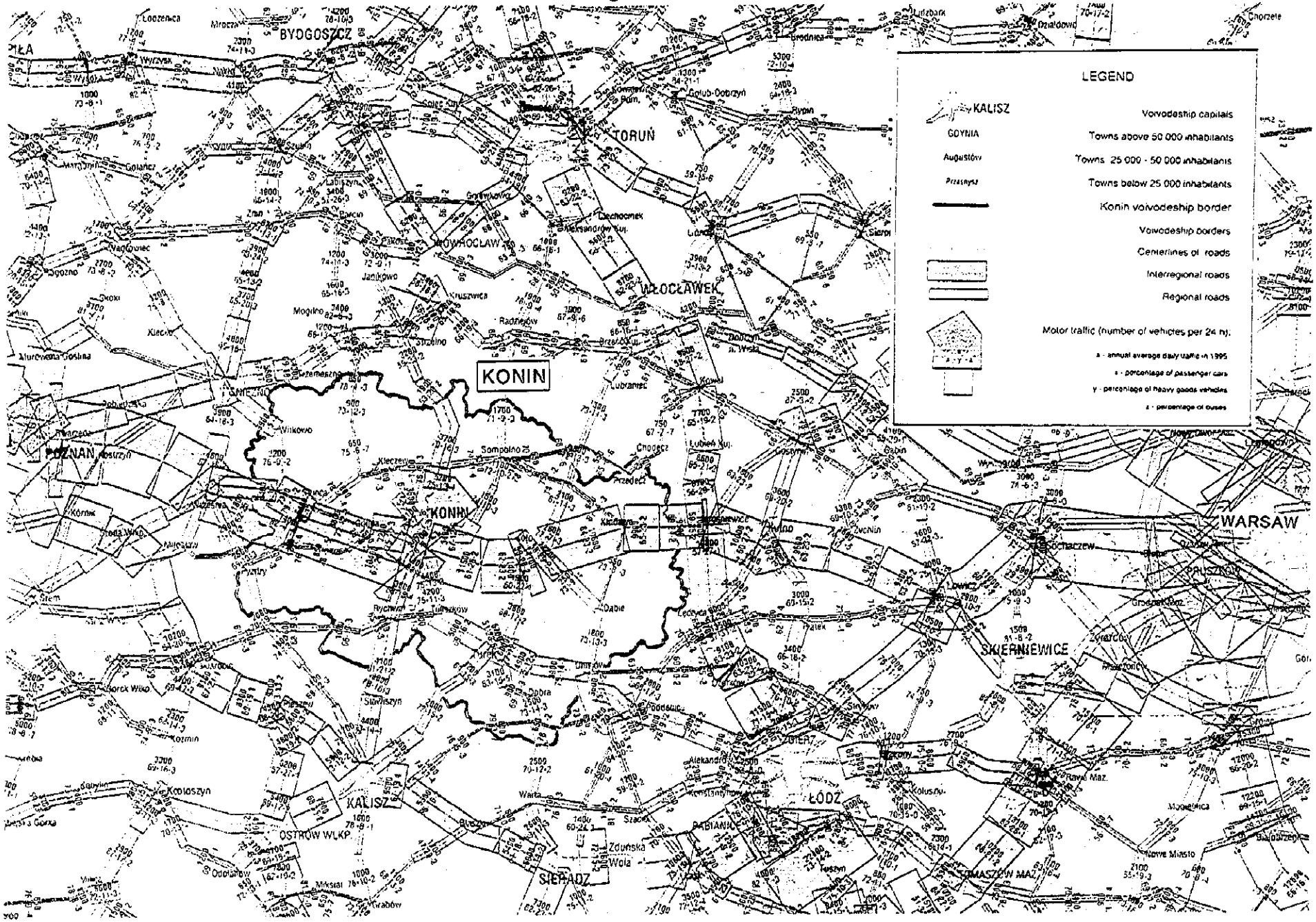
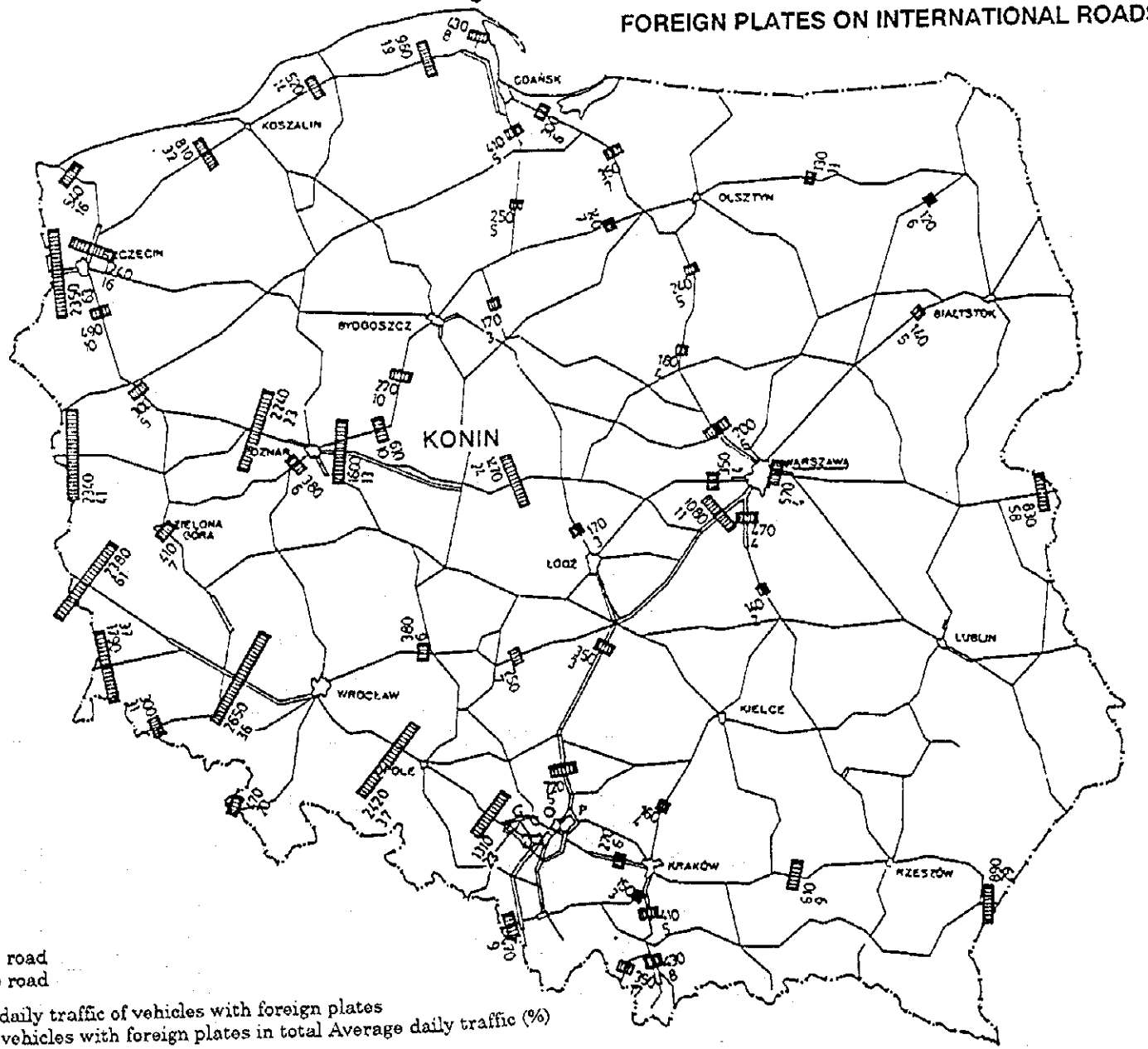


Figure 4.3-2 AVERAGE DAILY ROAD TRAFFIC OF VEHICLES WITH FOREIGN PLATES ON INTERNATIONAL ROADS IN 1990



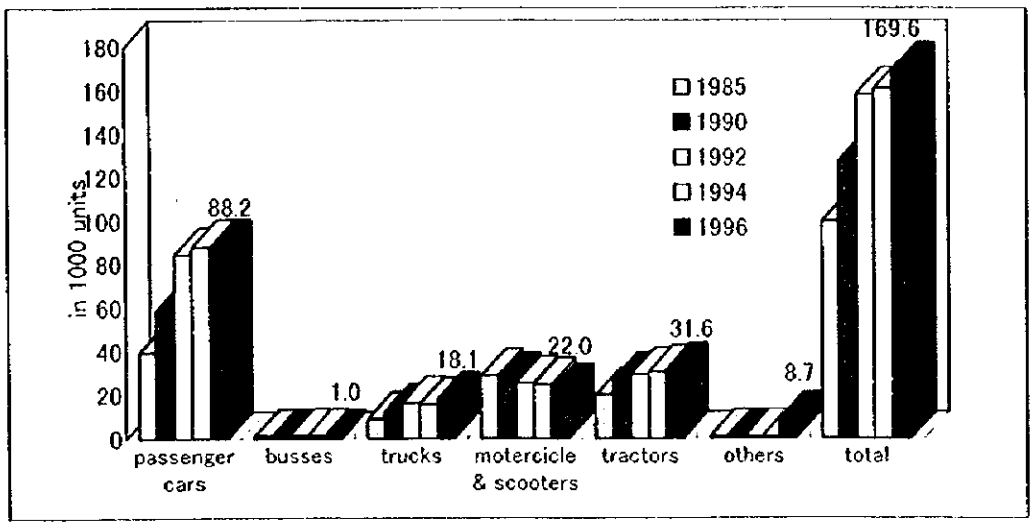
2) Railway traffic

In comparison with road traffic, railway traffic in Konin has few problems. 2,660 million tons of freight cargo were carried in 1995, and according to the forecast mentioned before, this volume of freight will not change till 2020. The biggest volume of freight, 21699 million tons, between Katowice and Gdansk is not produced, bought or sold in Konin and merely passes through Konin Province .

(2) Number of vehicles in Konin Province

The total number of vehicles in Konin Province is increasing. The number of passenger cars and tractors is increasing gradually, and the number of vehicles which are categorized as "others" is increasing at a particularly high rate. "others" includes vehicles with special specifications such as refrigeration equipment.

Figure 4.3-3 NUMBER OF VEHICLES IN KONIN



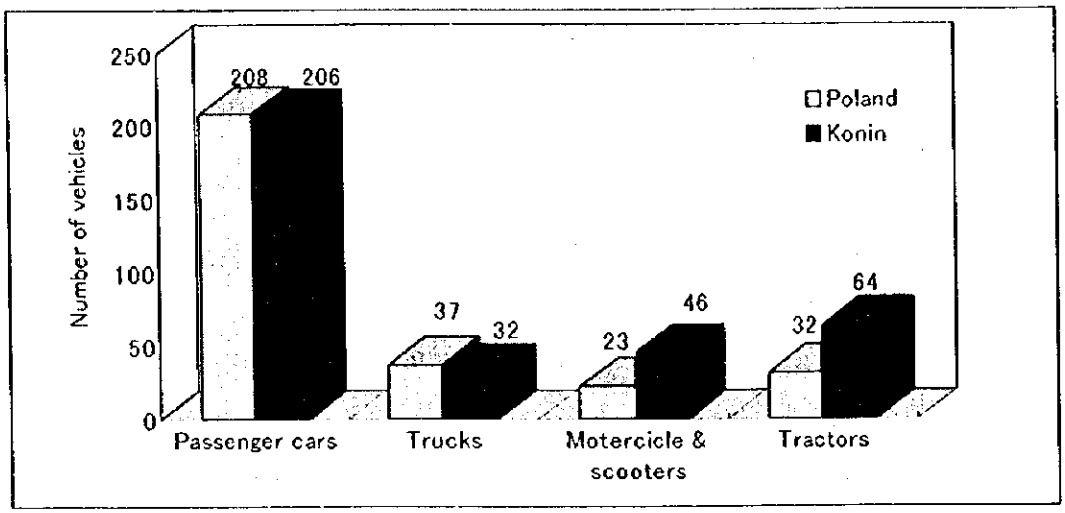
Source : Statistical Office of Konin

The following figure shows that the number of vehicles per 1,000 people in 1996. Due to the industrial structure of Konin Province, the number of tractors (for agriculture) is much higher than the Polish average.

Farmers often use tractors to carry produce to the processing companies. However, as the speed of tractors is limited, they are not practical to carry the produce to distant companies. Besides, since the minimum legal speed

on expressways is 25 km per hour, it is impossible for farmers to move produce by themselves. An efficient collection and distribution systems is vital. This issue is discussed later.

Figure 4.3-4 MOTOR VEHICLE AND FARM TRACTOR PER 1,000 PEOPLE



Source: Transport - Result of Activities for 1996, GUS

4.3.2 Scale and Field of Physical Distribution

Three cities, Poznan, Bydgoszcz and Lodz, are located within 100 km of Konin city. It takes 1.5 hours to Poznan and 2.5 hours to Bydgoszcz and Lodz. Warsaw itself is only 3 hours away.

Nevertheless, the volume of products from Konin Province transported to these cities is not great. This phenomenon is not only caused by physical problems such as a shortage of proper trucks but also by the marketing systems.

Most commodities circulate within Konin province. At discussions in meetings in the voivode office in Konin, it was found that agricultural producers tended to think that there is a shortage of agricultural processing industries in Konin Province. It is necessary to broaden their thinking. Development of market channels is a record important task for the future.

Although much freight in carried through Konin Province, very little of it comes from Konin Province.

Although Konin province is rather rich in infrastructure such as railways, roads and river, it is easy to access the bigger cities, people do not utilize this potential. The details of the potential will be discussed later.

4.4 Current Condition of Freight Transport Enterprises in Konin

As mentioned in paragraph "4.2.2 Regulations Concerning Physical Distribution and Transport", in order to begin a private transport service one a special license is not required and all that is needed is to register in a public office. It can be claimed that road transport is the sub-sector of the Polish economy which is the most advanced in the process of privatization. There have been are bankrupteies, companies, but some newly formed businesses are succeeding.

Among the firms providing transport services in Poland, one enterprise has a fleet of 1,150 trucks. Only 17 enterprises own more than 80 vehicles, and over 60,000 enterprises are one-man, one truck business.

General information about the freight transport companies is given in "4.1.2 Current Situation and Future Plan of Traffic Infrastructure and Operation of Transport. Here, the activities and the characteristics of the freight transport companies in Konin Province are described on the basis of the scale of enterprises, the items carried, and the distance goods are carried.

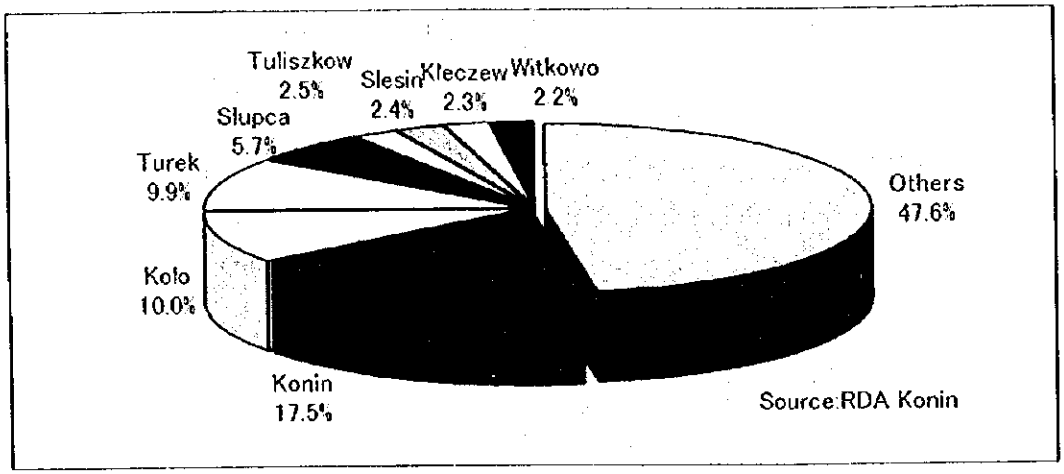
4.4.1 Classification of Freight Companies

(1) Location of freight companies

In order to grasp the current condition of transport companies in Konin Province, we extracted the freight companies from the companies list made up by the RDA in Konin. According to the list, 969 companies are considered as engaged in the transport business in Konin province.

According to the list, the number of transportation companies according to their location in Konin province are : 170 in Konin city, 97 in Kolo and 96 in Turek. Of the total of 969 companies, many are engaged in other lines of business such as car repair, warehousing, trading and processing. Since there is no specific law or institution for defining the activities of professional transport services and registering their business at the present time, there was difficulty in classifying the 969 companies into groups by type of activity .

Figure 4.4-1 LOCATION OF TRANSPORT COMPANIES IN KONIN



Consequently, the Team decided to deliver questionnaires to a sample of 52 freight companies to ascertain the details of their activity.

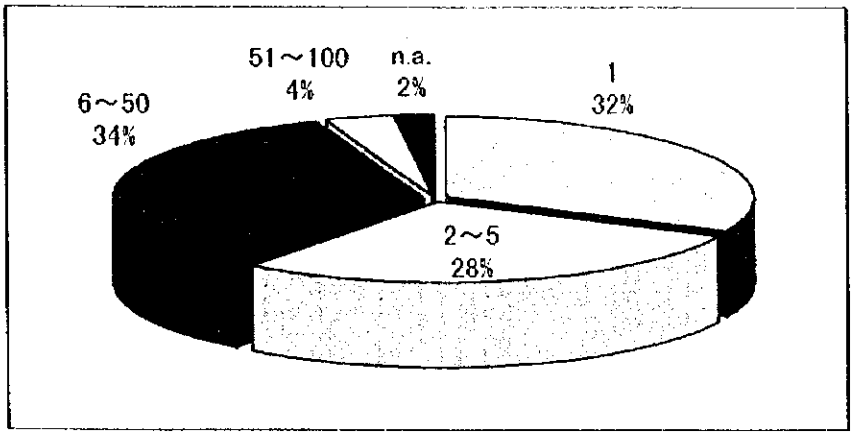
(2) Classification by categories

Of the 52 responses, 26 (51%) companies are specialized in freight transport services, 5 (10%) are dealing with both cargo and passenger service, and 18 (35%) are providing transport service as a side business.

1) Number of vehicles owned

Many of the companies said that they are of the minimum business scale, which means owing only one vehicle, and necessarily not operating a trucking business constantly. As the result of the survey, respondents are categorized into four types by the number of vehicles as shown in Figure 4.4-2.

Figure 4.4-2 THE 52-COMPANY SAMPLE CLASSIFIES BY NUMBER OF VEHICLE



2) Year of establishment

Information from RDA indicates that most of the transport companies were established after 1989.

Figure 4.4-3 shows the shares of respondents classified by the year of establishment

Figure4.4-3 THE 52-COMPANY SAMPLE CLASSIFIED BY YEAR OF ESTABLISHMENT

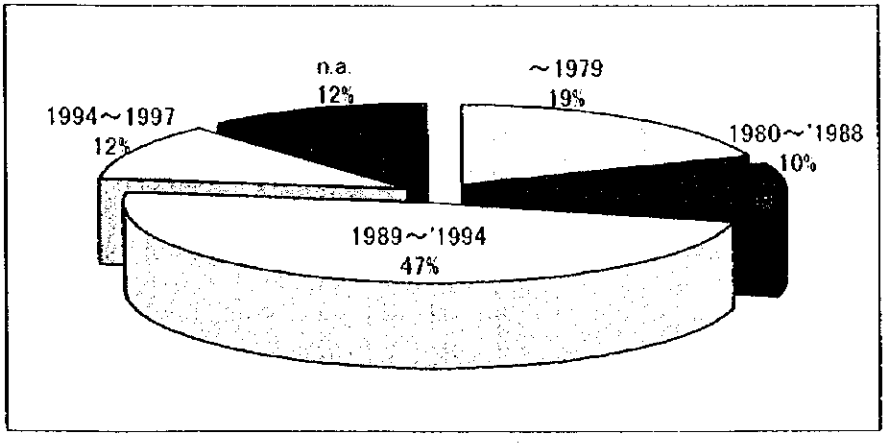
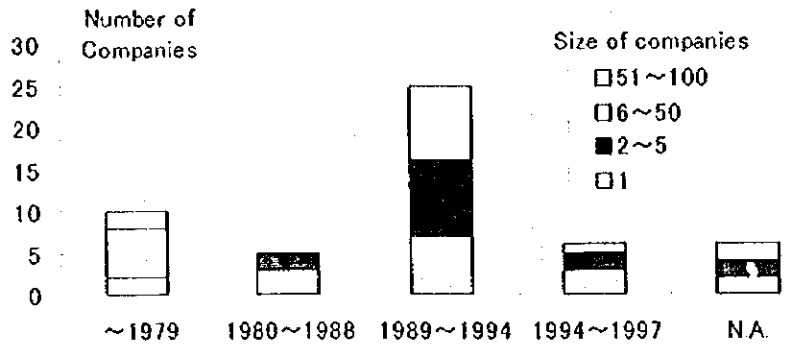


Figure 4.4-4 shows the scale of company by the year of establishment. Two relatively bigger companies were established before 1979. They were established during 1962 - 63 when the central government strengthened the control systems. There are new medium scale companies which were established by privatization or diversification of state-owned companies.

Figure4.4-4 SCALE OF COMPANIES BY YEAR OF ESTABLISHMENT



3) Volume of cargo

Table 4.4-1 shows the volume of cargo carried by the freight companies. The company scale is classified by the number of holding vehicles.

Table 4.4-1 VOLUME OF CARGO

Company scale (No. of Vehicles)	Average of cargo volume			
	Tons/Month	Km/month	1,000 Ton-km/ Month	1,000 Ton-km/ Year
1	83	4,892	407	4,884
2～5	334	10,800	3,607	43,284
6～50	3,939	71,540	281,796	3,381,552
51～100	12,907	231,211	2,984,240	35,810,880
Total	2,908	41,268	120,000	1,440,000

4.4.2 Activity of Freight Transport and Forwarding Enterprises in Konin

(1) Activity of large state-owned transport companies in Konin

Most large and medium size transport companies in Province are state owned. The biggest is PKS Konin which employs 600 people. PKS Konin has 300 vehicles including 218 buses, 35 trucks and 47 other cars. The company has reduced the number of employees from 1,400 and the number of vehicles from 500 since 1990. Its main service is passenger bus operation. They also engage in freight transport, trading, warehouse renting, repair workshop and sale of spare parts.
There are PKSs in Tulek and Kolo too.

The activity of Kolo Transport is of great interest to our study. After separating from Kolo Meat Co., they changed their line of business from domestic transport to international transport. They make the best use of their refrigeration experience, and handle fresh products which need cold storage. The forwarding company "POLFROST Poland" in Warsaw, which was established in 1990 by a German invetor, uses this transportation service mainly to Germany and Russia. Since Kolo Transport is a state-owned company supervised by Konin's Voivode office, the Kolo transport can not have a joint venture with POLFROST Poland at this moment. However, after the completion of necessary procedures, they intend to cooperate more closely.

There is a branch office of SPEDPOL, which is mentioned above, in Konin City. SPEDPOL specializes in domestic cargo transport. The profit of Konin branch office was the top among 30 branches in 1995, however, since PKS Konin acquired SPEDPOL's biggest client, namely "Huta Aluminum", SPEDPOL Konin's ranking went down from first to third. It is said that the reason for which Huta Aluminum withdrew its business is that SPEDPOL is a forwarding company without its own trucks.

(2) Activity of small size transport companies in Konin

Most of the small transport companies in Konin conduct their daily business independently, and some cooperate with forwarding companies. Since forwarding companies charge a fee for getting business, transport companies wonder whether they can make direct contract with customers. However, the network created by forwarding companies is useful became it can reduce the time losses needed to make delivery.

Small and medium size freight companies are easily influenced by business fluctuations. Recently, international transport companies are facing problems presented by the exchange rate since they contract in DM. When the PLN becomes strong, the advantage of Polish freight companies against western European countries decrease.

(3) Trend of business activities

The main loads carried by freight companies in Konin province are given in Table 4.4-3 below. Valid answers to the survey question on this are 40 and some of them gave multiple answers.

According to the answers, the main loads carried by freight companies in Konin Province are agricultural produce and construction materials. Although the sales amounts by each type load are not evident in this data, most freight companies are dealing with these kinds of loads.

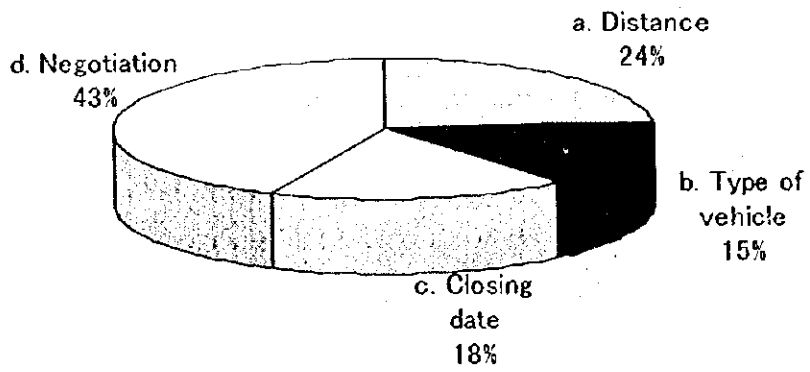
Table 4.4-2 SORTS OF LOADS OF FREIGHT COMPANIES IN KONIN PROVINCE

	No. of Answers	% of the 40 valid returns
Mass goods	4	10.0%
Small articles	3	7.5%
Construction materials	14	35.0%
Agricultural products	16	40.0%
Metals & products	9	22.5%
Woods & products	2	5.0%
Others	1	2.5%

Source: JICA Study Team

The answer to a question of how to decide on the carrying charge is illustrated in following Figure 4.4-5. Multiple answers who acceptable.

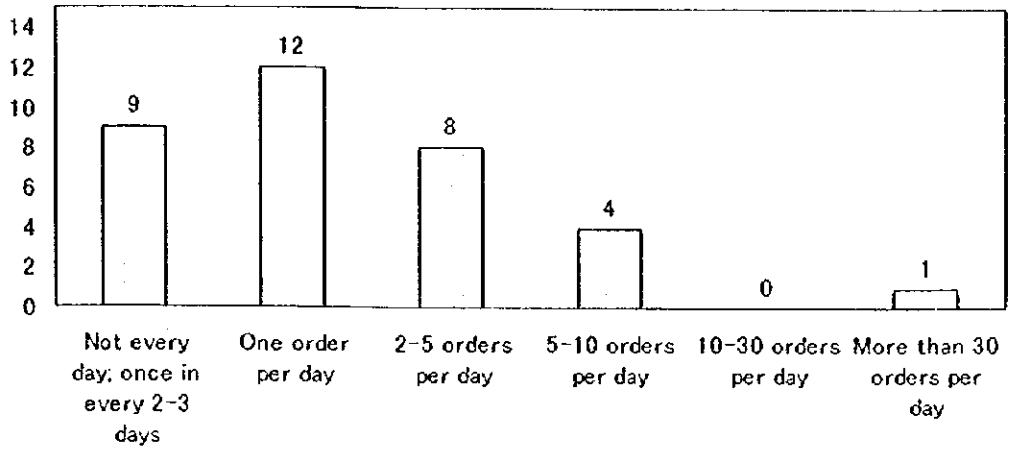
Figure 4.4-5 BUSINESS FOR DETERMINING TRANSPORT CHANGES



61% of respondents have regular customers. The ratio of orders from the regular customers accounted for 85% of average orders received.

Although only 34 answers were available for the question which asking how often the companies orders receive from clients, a general view on the business opportunity can be evaluated. As shown in following figure, most of companies receive orders once per day or 2-5 times per day. 26% of companies do not receive orders everyday.

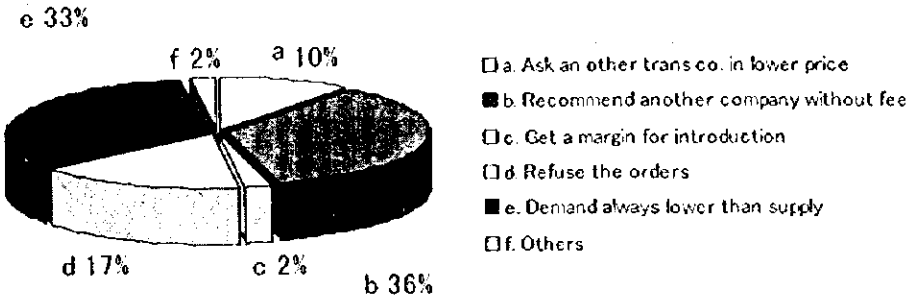
Figure 4.4-6 FREQUENCY OF ORDERS



The answer for the question that asked what they did in case of a shortage of trucks when orders came in is shown in Figure 4.4-7.

17 (36%) of the companies introduce the clients to an other transport companies without seeking compensation. 8 (17%) of them just refuse the orders. From these answers, it is evident that most of the companies have no idea of the value of an efficient collaboration system.

Figure 4.4-7 RESPONSE WHEN CLIENTS REQUESTS CAN NOT BE MET



22 (44%) of the companies have a regular collaborative relationship with other companies. 28 (56%) of them do not have such a relationship. However, 36 (80%) of them think that the transport companies should establish their own association in order to exchange information. Other purposes/functions of association considered necessary by the respondents are as following ;

- To exchange information
- To develop higher quality of services
- To promote competitiveness
- To discuss agreed prices
- To discuss lack of parking
- To provide actual situation in transportation
- To discuss carrying cargoes when returning from the destination
- To discuss reduction of transportation cost
- To solve the problems of an unstable market
- To help each other in case of lack of means of transportation

(4) Problems

One question asked about the problems or troubles they are facing. Respondents were told they could select three from the choices below. Most of transport companies cited vehicle trouble. 54% marked "high cost of maintenance of vehicles" and 48% marked "Overage vehicle" Thus, high impedance was given to problems concerning vehicles.

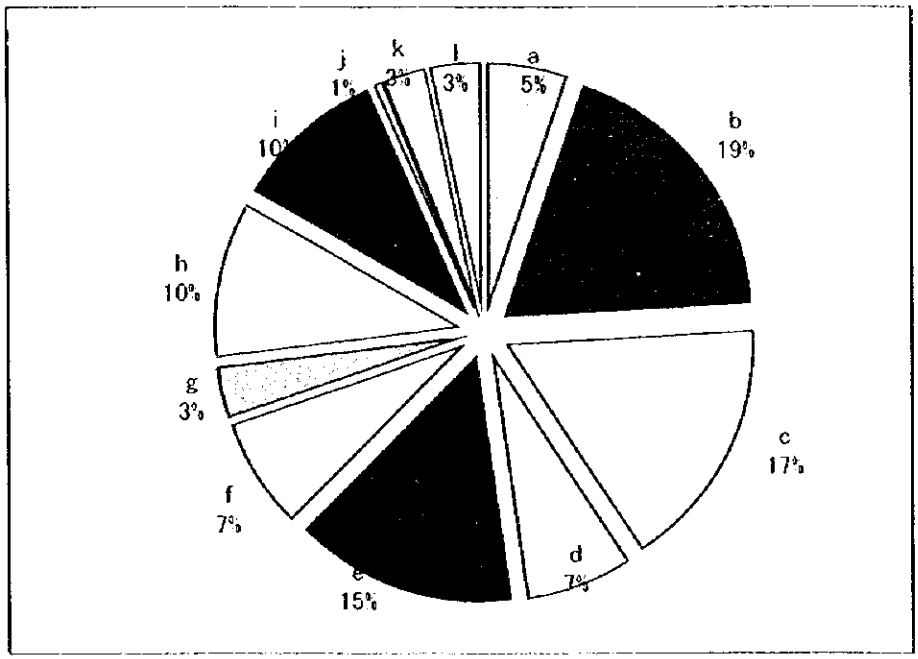
42% of them are worried about fuel cost, "e". 29% marked "h" concerning the low carrying charge caused by over competition, and "i" concerning road conditions. "f" about sales channel was marked by 21% of

respondents. Figure 4.4-7 illustrates the degree of important problems which respondents are recognized.

Table 4.4-3 PROBLEMS OF TRANSPORT COMPANIES

Problems which respondents recognize	No. of answers	Ration to total answers	Ratio divided by number of samples
a Difficulties in borrowing of loan or	8	5%	15%
b High cost of maintenance of vehicles	28	19%	54%
c Overage vehicles	25	17%	48%
d High cost of leasing vehicles	10	7%	19%
e High cost of fuel for vehicles	22	15%	42%
f Difficulties in finding sales channel(difficult to find the consignors)	11	7%	21%
g Lack of reliable business partner	5	3%	10%
h Low transportation service price by reason of too much competition	15	10%	29%
i Road conditions (unpaved road)	15	10%	29%
j Difficulties in complying with diversified customers requirements	1	1%	2%
k Shortage of drivers	4	3%	8%
l Shortage of information	5	3%	10%
	149	100%	

Figure 4.4-8 PROBLEM AREA OF TRANSPORT COMPANIES



Note: See Table 4-4-3 for legend.

4.5 Distribution of Major Economic Sectors in Konin Province

Since transportation and physical distribution are influenced by traffic infrastructure, the Team analyzed the traffic infrastructure surrounding Konin Province as reported in previous chapter. Furthermore, the freight transport enterprises in Poland have been discussed for understanding the general conditions of the transport system which is necessary for producers to distribute their commodities.
In this chapter, we analyze the distribution system and market mechanism in Konin Province.

Since most cargoes pass through Konin Province, we focus on the commodities transacted in Konin Province. Therefore, we put emphasis on agricultural products and construction materials based on the following reasons which are consequences of each sector survey.

- 41.6% of the labor force is engaged in the agricultural sector (Chapter 2, "Position of Konin Province in Poland, Table 2.2.1).
- Mineral resources apart from brown coal and rock salt in Konin Province are utilized for making a construction materials (3.3.3 "Mineral Resources for Industry Usage").
- According to the questionnaire survey for the industrial sector, one-third of manufacturing companies are regarded as concerned with the construction business (4.5.2 "Distribution of construction material").
- 16.7% of manufacturers are engaged in the food processing industry.
- Major cargoes carried by freight companies in Konin Province are agricultural products and construction materials (4.4 Current Condition of Freight Transport Enterprises in Konin).

4.5.1 Distribution of Agricultural Products and Foods

4.5.1.1 Distinctive Feature of Distribution

According to the survey of the agricultural sector, the major agricultural products in Konin Province include milk, meat, grain, sugar beet and fruits. The distinctive distribution and physical distribution of each product are as follows;

- Average daily milk production per farm is 100 liters
- Milk can be preserved in refrigerators for 3 - 5 days
- Milk processing firms collect the milk from the farmers
- Year round distribution is possible

2) Meat (pigs)

- Most farmer breeds 5 to 19 pigs
- 80% of farmers pay neighbors for transporting their pigs
- 20% of farmers can deliver livestock by utilizing the processing company's trucks
- Price is fixed depending on meat quality
- Year round distribution is possible

3) Grain (wheat, rye, etc.)

- Most farmers carry the grain to warehouses and processing companies by utilizing their own tractors
- There is no joint dispatch system for strengthening their bargaining power
- Wheat farmers are price takers
- Harvest is from August to September
- After the harvest season, the next selling peak is March or May.

4) Sugar beet

- Agreements on quantity and price are exchanged between farmers and companies at the beginning of year
- If there is a surplus of agricultural products, farmers sell it all at a lower price
- Transportation must be provided by farmers themselves

5) Potato

- Harvest is from September to October
- Most potatoes are consumed by farmers' livestock
- Some potatoes are carried to a branch office of the starch processing company in Lubon (farmers arrange transportation by themselves)

- Farmers store potatoes underground, then it is possible to sell them year round at markets

6) Fruits (apple, strawberry)

- Harvest of apple is from September to October
- Harvest of strawberry is May
- Most fruits producers do not develop regular customers
- Farmers sometime open truck stalls in wholesale markets
- Large-scale farmers grade their products by utilizing sorting machines

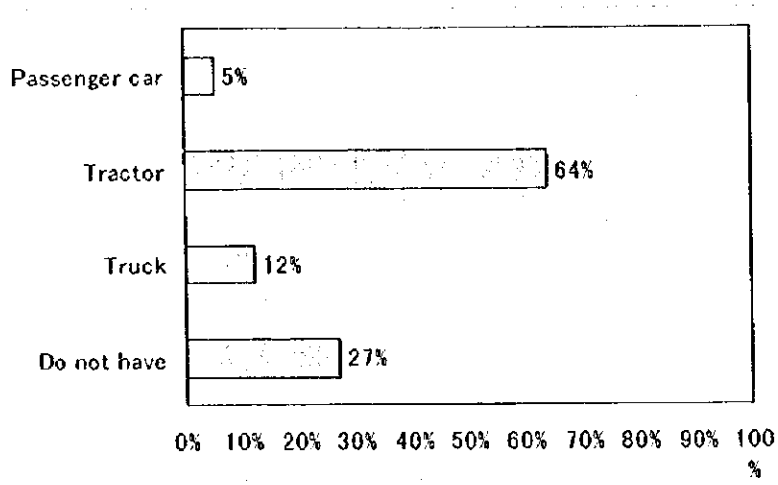
4.5.1.2 Transportation of Agricultural Products from the Production Area

The questionnaires prepared in this study to survey transport conditions were attached to the questionnaires for agricultural sector. The number of valid samples is 147. Since the general analysis of respondents is mentioned in "4.1 Agricultural sectors", this section focuses on the transport from farms. The purpose of this questionnaire was to survey how farmers move their products to buyers.

(1) Means of transportation which the farmers themselves control hold

We asked the farmers whether they own a vehicle. Some farmers marked plural choices, so the percentage are calculated as a ratio to the number of valid samples (147) and hence do not add to 100. 107 (73%) of all respondents have a means of transport including tractors. 18 (12%) of them have trucks. 94 (64%) have tractors for farm work and they sometimes use them as the means of transport. 40 (27%) of farmers do not have any vehicle at all.

Figure 4.5-1 VEHICLE OWNERSHIP BY FARMERS

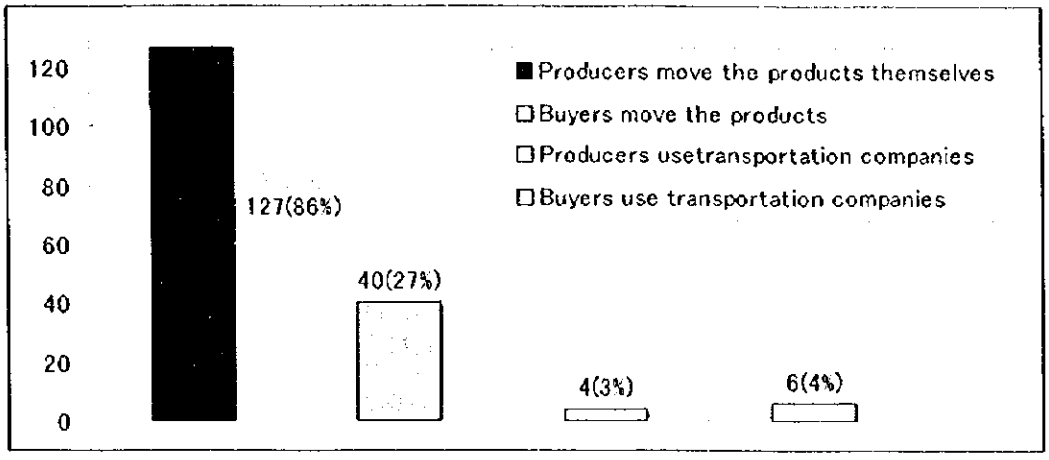


(2) Arrangement of transport

According to the responses to the question regarding the responsibility for carriage of agricultural products, 127 (86%) of the 147 respondents answered that they move their products by themselves. Cases in which farmers ask their neighbors to transport their products may be included in these answers. Some of them use horses as the means of transportation. 40 (27%) of the respondents syndicated that buyers arranged vehicles for moving the products. Most of this cases involve dairy products. The milk plants send their refrigerated trucks to farms periodically. Only 7 % of farmers and buyers hire transport services provided by professional freight companies.

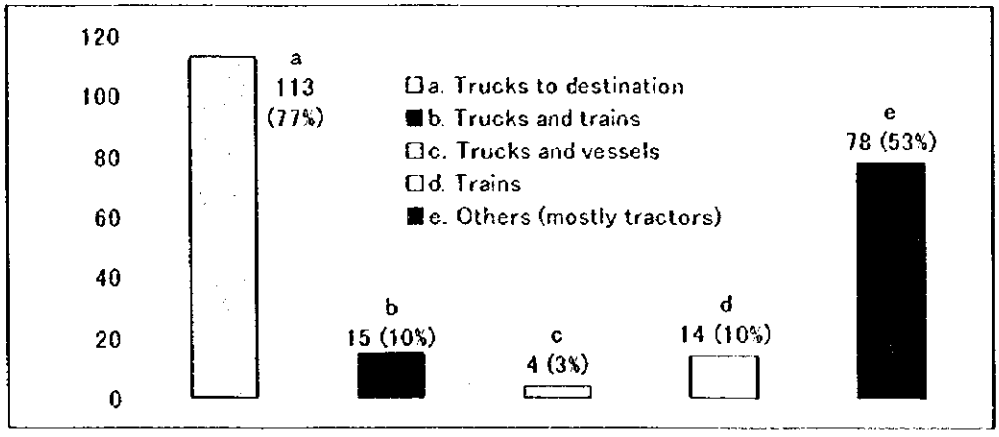
Figure 4.5-2 shows the result of this question.

Figure 4.5-2 THE NUMBER OF FARMERS GIVING EACH ANSWER



The answer to the question regarding means of transportation for carrying products to destinations is illustrated in the next figure.

Figure 4.5-3 THE MEANS OF TRANSPORTATION USED TO THE DESTINATIONS



113 (77%) of 147 respondents send their products to destinations by truck. 78 (53%) of them marked "others" and remarked that they meant tractor. There are only 7 respondents who send their products to foreign countries.

(3) Problems in transportation

The farmers face many problems. Since the general problems have already been analyzed in the agricultural sector, we concentrate have on the

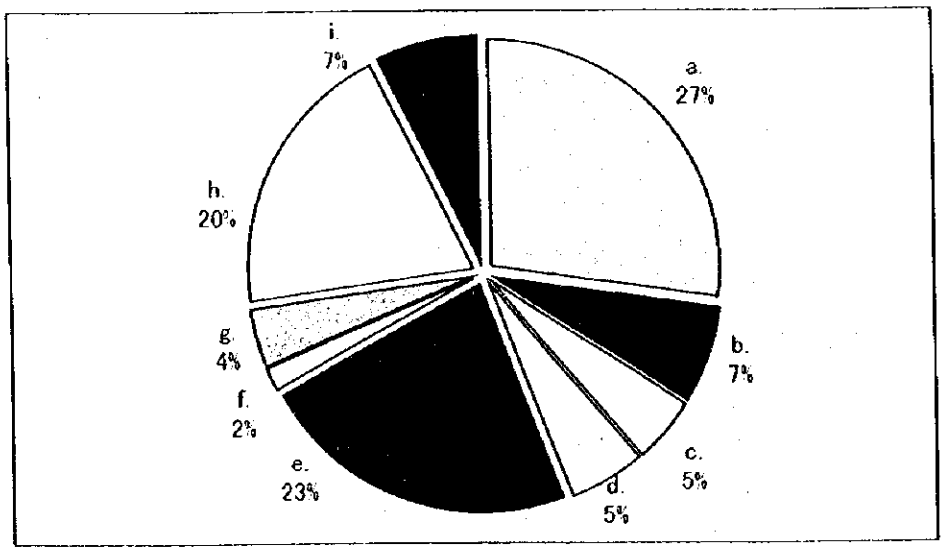
problems concerning transport and distribution of agricultural products at the farm level. 118 (80%) of respondents answered "a" that the cost for transportation is high. 99 (67%) of them marked "e" which mentioned the difficulty of arrangement of distribution channels. 88 (60%) of them marked "h" which is the problem of unsold produce. Figure 4.5-4 shows the degree of the importance of transport problems to farmers.

Table 4.5-1 FARMERS' PROBLEMS IN TRANSPORTATION AND DISTRIBUTION

	a*	b*	c*
a. High cost of transportation	118	27%	80%
b. Losses during transportation	31	7%	21%
c. The service of transportation companies are not comfortable	20	5%	14%
d. The number of transportation companies are limited	23	5%	16%
e. Arrange of distribution is difficult, because of unstable sales market	99	23%	67%
f. Custom procedures is complicated	7	2%	5%
g. Shortage of warehouse capacity	18	4%	12%
h. Unsold produce	88	20%	60%
i. Others	31	7%	21%
	435	100%	

a* is the number of answers
b* is the ratio divided by total of a*
c* is the ratio divided by number of samples

Figure 4.5-4 PROBLEMS' AREA OF FARMERS



4.5.1.3 Buyers of Products

According to the survey of the agricultural sector, 40 out of 190 farmers answer that products are consumed by producers. When we subtract the answers "not sell" and "for production", 45.3% of farmers do not sell their products to the market.

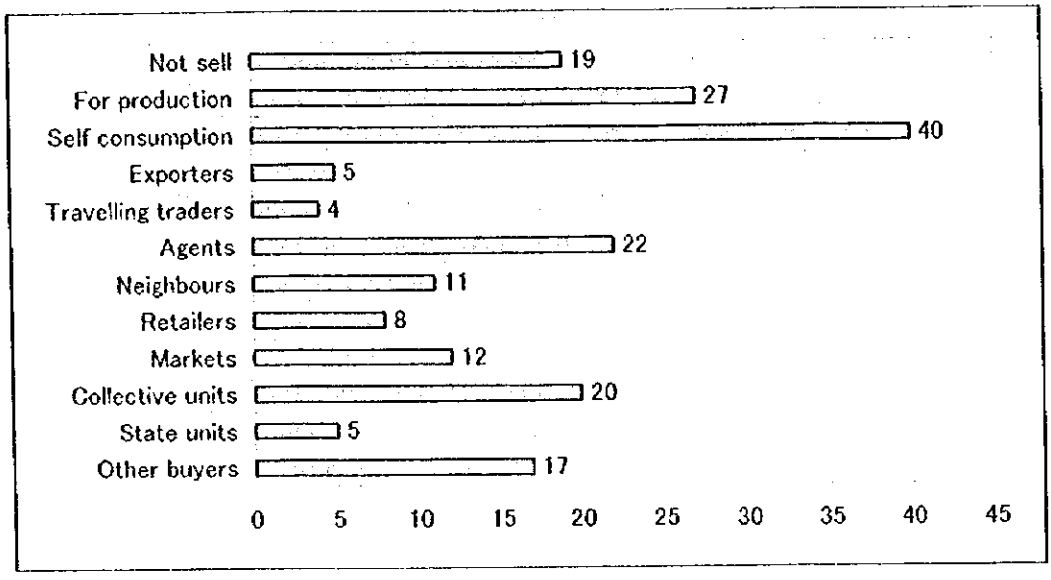
Most farmers who replied that they used agents are producers of dairy foods. The reason why these sell to agents is due to the perishable nature of milk and fresh foods which require sensitive temperature control in the process of transportation.

Products carried to processing industries such as milk, meat and grain tend to be bought by middlemen since the number of processing plants located in the vicinity are limited. Most farmers have inherited the distribution channel of the old system and it has not been very diversified yet.

However, there is another problem in that processing plants have had problems went downhill during the transition period. Processing plants could not withstand the gap between inflation and food price control by government. Many processing companies which were used to buy agricultural products went bankrupt, and therefore, the distribution channel of local products become narrow. Establishing public markets was one of the countermeasures to cope with this contraction of the market.

Fresh fruits and vegetables tend to be sold in open markets in various neighborhoods. Some farmers sell their products at their farms. The distribution system for fruits and vegetables is primitive and is regarded as being in a transition period.

Figure 4.5-5 BUYERS OF AGRICULTURAL PRODUCTS



4.5.1.4 Competitiveness of Agri-food Products

(1) International agri-food trade by product categories

Poland is preparing to join the EU, so the agricultural market is being influenced by the market of neighboring countries. People must accept the EU standard for the distribution system and technology related to agri- food products in order to survive the transition period. Since the domestic market is closely related to international trade, monitoring the international market is very important for people dealing in agricultural and food products.

Table 4.5-2 below illustrates the value of international trade and Table 4.5-3 illustrates the weight of its categories.

The data show that the excess of imports over exports is increasing in recent years. Especially, import surplus of cereals increased rapidly from USD223.6 million in 1995 to USD725.8 million in 1996. Farmers said that they held back cereals from the market due to a poor harvest in 1995 and they expected to benefit from selling their grain at higher prices. However, the international market reacted quicker than they expected. International traders imported lower-priced cereals from neighboring countries and the domestic price was kept low as a result. Because was a sufficient supply of imported cereals, many farmers lost opportunities to

sell their products. This occurrence made people realize that Polish cereal market was linked with international market and Polish cereals are not highly competitive. In accordance with analysis in the Agriculture Sector Report, the most significant reason for weak competitiveness of Polish cereals is small farm size. This circumstance is a cause of ineffectiveness of the distribution system as well.

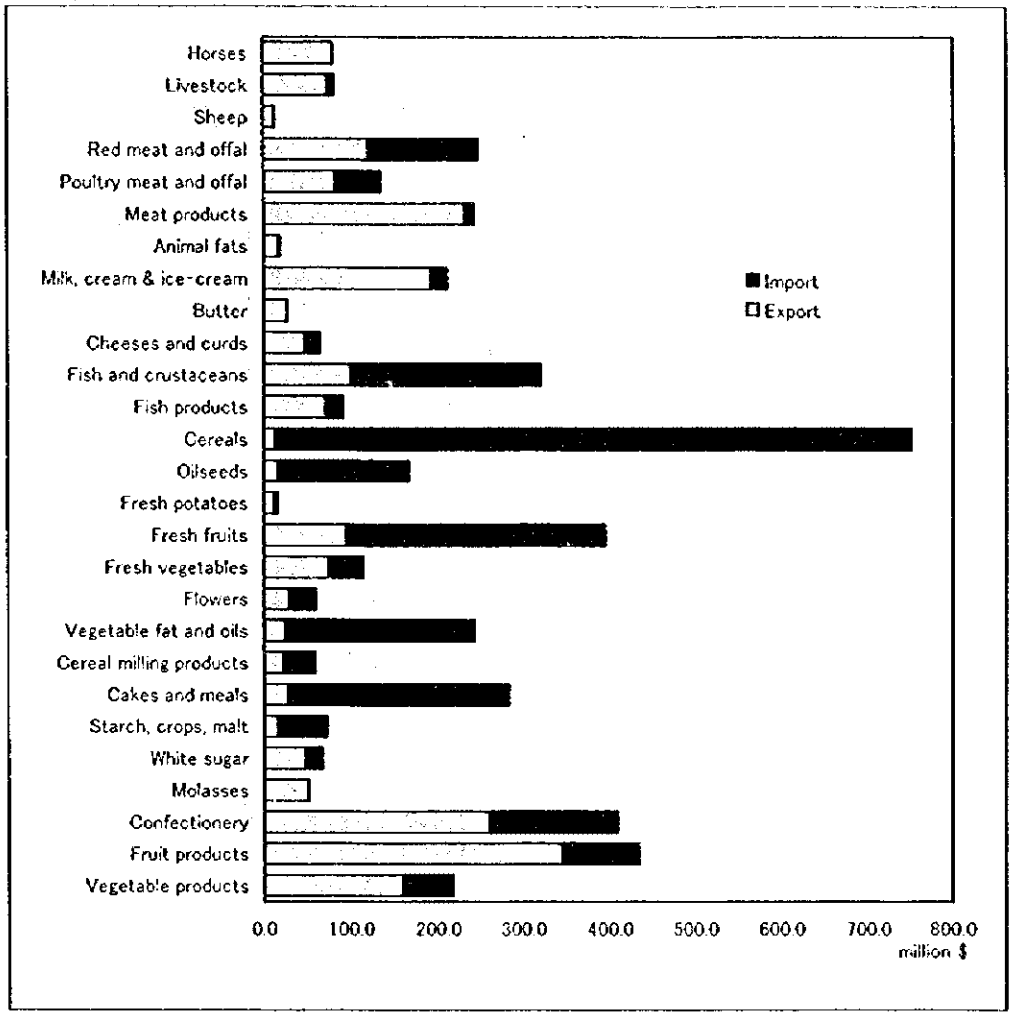
According to Figure 4.5-3, the volume of trade by product categories, trade of fresh fruits and fruit products is notable since the volume of these trade is relatively high. Thus Polish fruit market has been withstanding of hard competition, but effects of imports of fresh fruits and fruits products have been increasing. The import surplus of fresh fruits become USD206 million in 1996, by increasing from USD93.7 million in 1995. The favorable trade balance of fruit products is declining gradually, from USD268.2 million in 1995 to USD255.8 million in 1996.

Table 4.5-2 VALUE OF POLISH INTERNATIONAL AGRI-FOOD TRADE BY PRODUCT CATEGORIES

	Exports(mln US$)			Imports(mln US$)			Balance (mln US$)		
	1994	1995	1996	1994	1995	1996	1994	1995	1996
I Animal Products									
A. Live animals	179.2	180.2	175.2	58.1	36.5	42.4	121.1	143.7	132.8
1 Horses	81.7	68.1	79.3	1.3	0.7	1.3	80.4	67.4	78.0
2 Livestock	77.3	88.8	72.9	25.2	6.5	8.9	52.1	82.3	64.0
3 Sheep	16.4	15.4	13.2	0.1	0.1	0.0	16.3	15.3	13.2
4 Other	3.8	7.9	9.9	31.5	29.3	32.2	-27.7	-21.4	-22.3
B. Processed products (5~11)	440.7	604.4	720.8	252.1	184.9	230.4	188.6	419.5	490.4
5 Red meat and offal	58.4	101.7	120.8	141.8	96.1	126.6	-83.4	5.6	-5.8
6 Poultry meat and offal	61.6	71.9	83.4	61.6	37.5	51.2	0.0	34.4	32.2
7 Meat products	91.8	143.4	231.7	3.9	7.9	11.5	87.9	135.5	220.2
8 Animal fats	5.8	11.5	16.6	2.9	2.4	3.7	2.9	9.1	12.9
9 Milk, cream and ice-cream	174.2	220.5	192.9	16.6	17.1	18.8	157.6	203.4	174.1
10 Butter	11.5	21.7	27.8	4.8	0.9	0.7	6.7	20.8	27.1
11 Cheeses and curds	37.4	33.7	47.5	20.4	23.0	17.9	17.0	10.7	29.6
12 Other animal products	39.9	50.7	52.3	147.3	170.1	224.3	-107.4	-119.4	-172.0
C. Fish	122.2	154.4	171.1	170.7	183.3	243.2	-48.5	-28.9	-72.1
13 Fish and crustaceans	61.0	87.8	99.4	155.5	165.0	222.8	-94.5	-77.2	-123.4
14 Fish products	61.2	66.5	71.6	15.2	18.3	20.4	46.0	48.2	51.2
Total (1~14)	782.0	989.6	1,119.3	628.2	574.8	740.2	153.8	414.8	379.1
II Crop Products									
D. Raw materials	211.8	364.8	241.2	384.3	586.3	1,267.4	-172.5	-221.5	-1,026.2
15 Cereals	2.2	17.0	13.4	78.1	240.6	739.2	-75.9	-223.6	-725.8
16 Oilseeds	2.6	99.7	15.7	56.7	39.2	151.6	-54.1	60.5	-135.9
17 Fresh potatoes	15.6	24.7	12.4	3.4	7.5	5.1	12.2	17.2	7.3
18 Fresh fruits	100.9	136.8	95.0	188.2	230.5	301.0	-87.3	-93.7	-206.0
19 Fresh vegetables	69.5	60.3	75.5	34.8	43.4	39.2	34.7	16.9	36.3
20 Flowers	20.9	26.4	29.2	23.2	25.1	31.3	-2.3	1.3	-2.1
E. Processed products	679.3	752.7	956.1	505.2	731.3	883.8	174.1	21.4	72.3
21 Vegetable fat and oils	17.1	36.8	25.2	173.8	206.2	218.5	-156.7	-169.4	-193.3
22 Cereal milling products	10.9	17.0	22.9	13.0	20.7	36.8	-2.1	-3.7	-13.9
23 Cakes and meals	15.9	20.0	28.1	134.0	159.5	255.6	-118.1	-139.5	-227.5
24 Starch, crops, malt	10.4	9.2	15.5	12.1	45.1	57.6	-1.7	-35.9	-42.1
25 White sugar	62.2	2.5	48.2	0.1	65.0	19.2	62.1	-62.5	29.0
26 Molasses	33.3	34.4	51.5	0.0	0.0	0.0	33.3	34.4	51.5
27 Confectionery	84.9	157.8	260.7	83.2	121.1	148.9	1.7	36.7	111.8
28 Fruit products	319.0	330.9	344.9	37.5	62.7	89.1	281.5	268.2	255.8
29 Vegetable products	125.7	144.2	159.2	51.4	50.8	57.9	74.3	93.4	101.3
30 Other crop products	126.0	163.4	211.6	235.3	298.1	309.4	-109.3	-134.7	-97.8
Total (15~30)	1,017.0	1,280.9	1,408.9	1,124.9	1,615.6	2,460.6	-107.9	-334.7	-1,051.7
Total (I + II)	1,798.9	2,270.6	2,528.2	1,753.0	2,190.4	3,200.8	45.9	80.2	-672.6
III Other Products	285.5	240.1	228.8	657.8	796.6	788.3	-372.3	-556.5	-559.5
31 Coffee, cacao, tea	28.0	48.6	70.8	413.4	515.9	463.5	-385.4	-467.3	-392.7
32 Tobacco and preparations	53.5	27.0	43.6	141.2	163.3	165.2	-87.7	-136.3	-121.6
33 Spirits and alcoholic drinks	76.0	101.9	73.7	36.8	42.7	67.2	39.2	59.2	6.5
34 Waters and non-alcoholic drinks	120.3	50.8	23.6	7.3	10.6	17.2	113.0	40.2	6.4
35 Other	7.7	11.8	17.1	59.1	64.1	75.3	-51.4	-52.3	-58.2
Total III (31~35)	285.5	240.1	228.8	657.8	796.6	788.3	-372.3	-556.5	-559.5
Total (I + II + III)	2,084.4	2,510.7	2,757.0	2,410.8	2,987.0	3,989.1	-326.4	-476.3	-1,232.1

Source: Polish international trade in agricultural and food products in 1996, FAPA

Figure 4.5-6 VOLUME OF TRADE BY PRODUCT CATEGORIES IN 1996



Source: Polish international trade in agricultural and food products in 1996, FAPA

Table 4.5-3 below is the weight of agri-foods export and import.

Table 4.5-3 WEIGHT OF AGRI-FOODS EXPORT AND IMPORT BY PRODUCT CATEGORIES

	Exports ('000 tons)			Imports ('000 tons)		
	1994	1995	1996	1994	1995	1996
I Animal Products						
A. Live animals						
1 Horses	49.8	37.5	45.4	1.1	0.5	0.6
2 Livestock	49.8	50.9	37.3	47.3	5.8	3.2
3 Sheep	10.2	7.7	6.2	0.0	0.0	0.0
4 Other	0.9	2.3	6.2	11.9	5.0	3.1
B. Processed products (5~11)						
5 Red meat and offal	15.7	43.0	60.4	129.7	63.4	74.8
6 Poultry meat and offal	14.4	16.9	21.2	60.8	33.6	44.1
7 Meat products	40.3	72.0	133.7	1.8	4.4	3.8
8 Animal fats	9.6	18.4	21.6	3.9	2.4	3.7
9 Milk, cream and ice-cream	126.5	115.2	109.5	22.6	20.4	12.6
10 Butter	8.0	10.5	13.1	3.0	0.3	0.4
11 Cheeses and curds	17.3	13.1	18.1	7.2	8.8	6.6
12 Other animal products	21.2	21.7	25.3	288.0	300.7	351.3
C. Fish						
13 Fish and crustaceans	36.3	53.5	58.8	193.2	182.0	209.2
14 Fish products	189.8	29.9	34.2	12.2	13.0	14.6
II Crop Products						
D. Raw materials						
15 Cereals	4.8	87.5	53.1	471.5	1,971.8	3,645.1
16 Oilseeds	7.4	370.9	51.9	133.0	66.5	397.7
17 Fresh potatoes	120.8	131.2	95.2	15.3	28.4	24.7
18 Fresh fruits	177.0	245.1	204.8	586.3	699.2	794.1
19 Fresh vegetables	247.6	148.4	173.1	118.6	144.2	106.6
20 Flowers	12.9	15.5	17.4	17.2	32.8	24.7
E. Processed products						
21 Vegetable fat and oils	42.6	61.4	48.8	280.2	263.3	297.8
22 Cereal milling products	22.9	39.1	40.9	73.1	180.9	245.0
23 Cakes and meals	120.3	164.8	172.6	599.6	708.7	907.1
24 Starch, crops, malt	91.8	59.7	107.8	49.3	144.5	155.3
25 White sugar	183.9	4.2	160.4	0.1	152.8	47.1
26 Molasses	412.2	361.9	475.7	0.0	0.0	0.0
27 Confectionery	43.5	65.5	104.5	52.8	88.2	94.0
28 Fruit products	312.9	282.3	351.0	49.3	64.7	85.7
29 Vegetable products	243.8	185.6	189.5	63.6	50.1	60.6
30 Other crop products	121.4	119.7	160.2	113.5	125.3	124.7
III Other Products						
31 Coffee, cacao, tea	10.2	12.2	19.0	192.0	192.5	210.2
32 Tobacco and preparations	4.5	5.0	10.7	44.2	47.6	43.6
33 Spirits and alcoholic drinks	99.5	131.4	81.6	61.2	57.2	81.2
34 Waters and non-alcoholic drinks	512.8	203.5	104.3	25.2	21.3	65.6
35 Other	14.1	16.6	24.8	90.5	83.6	98.3

Source: Polish international trade in agricultural and food products in 1996, FAPA

4.5.2 Distribution of Products of the Manufacturing Sector

4.5.2.1 Transport from Manufacturers

(1) Samples of collection

Following analysis of industrial sector was executed as described above, the transport of products from the manufacturers is taken up in this section. The questionnaire concerning transport was similar to the questionnaire for farmers. We distributed 50 questionnaires to manufacturers in Konin Province. Table 4.5-4 shows the characteristics of the survey.

Table 4.5-4 CHARACTERISTICS OF MOTHER GROUP OF THE SURVEY SAMPLE

type classified by commodities sold	Size by number of employees				
	1-5	6-50	51-250	251-500	total
Clothes		7	1	1	9
Furniture		7		2	9
Building materials		3	2		5
Baker's goods & cakes	2	2			4
Foods		3			3
Drinks (including alcohol drinks)		2	1		3
Concrete products (fences, window-sills, tombs)	1	1			2
Metal, plastic and plaster goods	1	1			2
Flour	1	1			2
Doors and windows		2			2
Paper bags, bags for tools		2			2
Shoes and shoes' leather		2			2
Advertising goods	1	1			2
Wooden products (flooring blocks)		1			1
Spare parts for agricultural machines			1		1
Veneers	1				1
	7	35	5	3	50

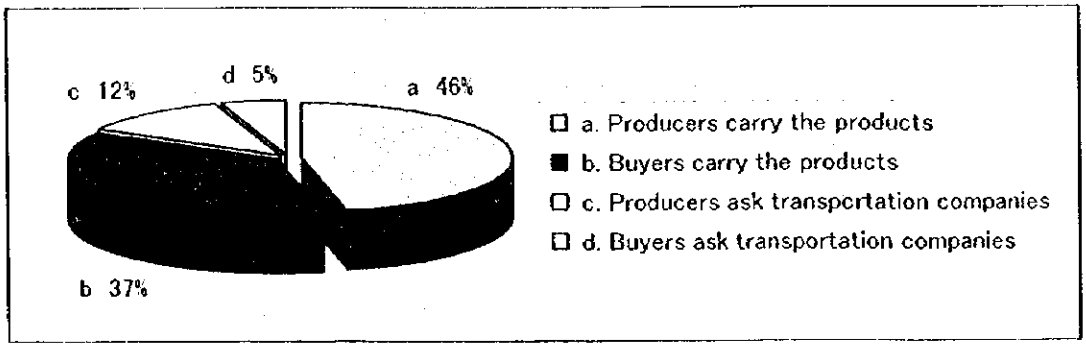
35 (70%) of manufacturers in the sample have 6 - 50 employees. There are 9 (18%) manufacturers producing clothes, and same number are producing furniture. 12 (24%) companies including bakeries, food-processing, beverages and flour-related companies are all regarded as food processing companies which purchase the agricultural products from the farmers.

(2) Transport of the commodities

35 (70%) of the respondents have their own means of transport. However, the companies do not always move their products by their own trucks. 46.8% of their commodities are carried by their own trucks average, and

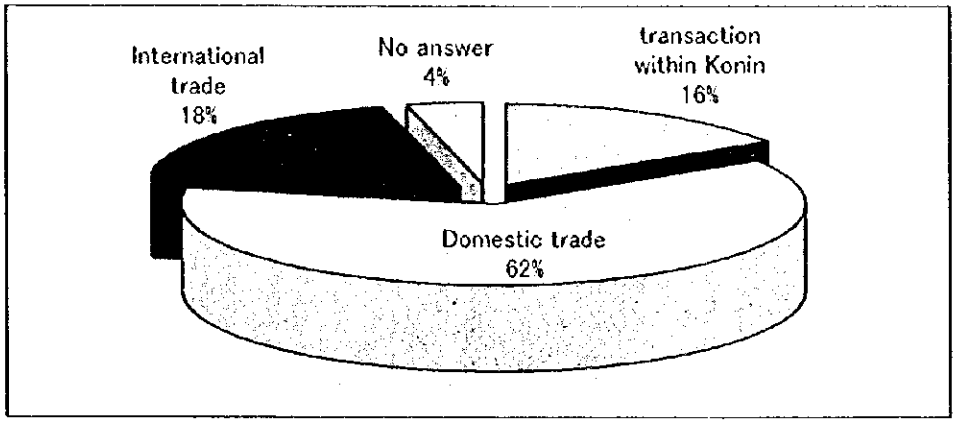
36.5% are carried by vehicles of buyers. 11.6% of them use professional freight companies and 5.1% of them answered that buyers pied for transportation services provided by freight companies. 58.4% (46.8% + 11.6%) of the companies bear the cost of transportation commodities to the destinations. Figure 4.5-7 illustrates this condition.

Figure 4.5-7 RESPONSIBILITY OF TRUCK ARRANGEMENT



The companies were asked what means of transportation they used. Only one company uses trains. Eight (16%) of the respondents sell their commodities only to clients within Konin Province. Nine (18%) export. Figure 4.5-8 shows their fields of activity.

Figure 4.5-8 FIELD OF BUSINESS ACTIVITY



(3) Transportation Problems

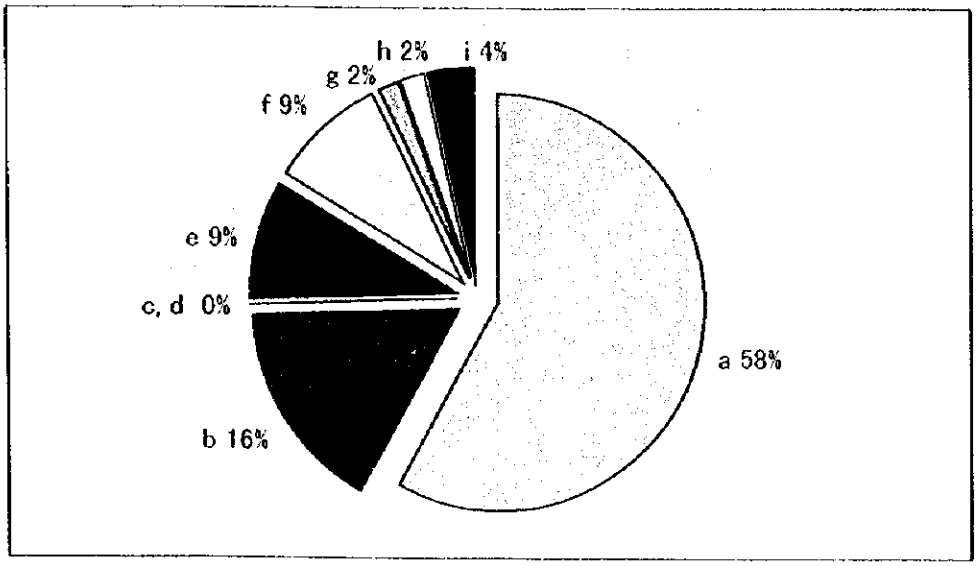
The problems concerning physical distribution were expressed as summarized in the following table. 32 (64%) of the sample are worried about the high cost for transportation. Another problem is losses during transportation.

Table 4.5-5 PROBLEMS IN THE TRANSPORTATION AND DISTRIBUTION OF MANUFACTURERS (PRODUCT)

	Problems which respondents recognize	a	b	c
a.	High cost for transportation	32	58%	64%
b.	Losses on the way of transportation	9	16%	18%
c.	The service of transportation companies are not comfortable	0	0%	0%
d.	The number of transportation companies are limited	0	0%	0%
e.	Arrange of distribution channels is difficult, because of unstable sales ma	5	9%	10%
f.	Custom procedure is complicated	5	9%	10%
g.	Shortage of warehouse's capacity	1	2%	2%
h.	Dead stock	1	2%	2%
i.	Others	2	4%	4%
		55	100%	

a* is the number of answers
b* is the ratio divided by total of a*
c* is the ratio divided by number of samples

Figure 4.5-9 MANUFACTURERS PROBLEM AREAS



4.5.2.2 Distribution of Construction Materials

As mentioned at the beginning of "4.5 Distribution of Major Economic Sector in Konin province", the distribution system of construction materials was selected for analysis .

(1) Natural resources for construction materials

According to the survey of the industrial sector, the remaining mineral resources are utilized for construction. These remaining mineral, especially natural aggregates and sand are mainly used by local construction sector. There are 67 pits of natural aggregates and total deposits are estimated as around 96 million tons. Out of this, 70,000 ton of natural aggregates are produced annually from 23 pits.

Quartz sand is used for production of concrete, bricks and other construction materials, and for molding as well. The quantity used for each major purpose is estimated as 4.8 million tons for concrete and bricks, and 1.4 million ton for molding.

Poznan loam deposits are about 3.3 million tons. The loam is mainly used for light aggregate production. White loam deposits are about 3.8 million tons and it is used for autiitertural ceramics such as bricks.

(2) Manufacturing industries related to construction materials

Owing to deposits of the natural resources, there are manufacturing industries related to construction materials in Konin Province. According to the survey of manufacturing enterprises mentioned in Sector Report "Chapter 3 Industry", 42 enterprises are categorized as "Wooden products industry", 35 as "Concrete products", 23 as "Metal products" and 19 as "Furniture". Based on the details for these products, 31% (91 out of 310) of manufacturers are related industries of construction material such as makeers of windows, concrete for walk, and furniture.

(3) Traders of construction materials

Local trader's stores dealing with construction materials are utilized by small-medium size construction companies, and individual customers. Since trading companies purchase large amount of commodities at once, they can negotiate with producers for discounts or better terms. Consequently, the consumer prices at stores are same as producer prices, in some cases. They are dealing in construction materials produced by foreign enterprises as well as national enterprises. During the survey on distribution of construction materials, the following distinctive features are discussed.

1) Distribution channel were diversified

Although distribution used to be controlled by the central government during the transition period, state monopolies engaged in distribution of construction materials were divided into more than 17 units. Most of them were privatized and several former state units were acquired by foreign investors. New traders entered the market.

At the same time, people's preference became diversified since the standards of housing which used to be controlled by the central government were deregulated.

2) Construction business prosperity

According to WIB, the construction business is prospering. The Table 4.5-6 below shows the growth rate of construction sector.

Table 4.5-6 GROWTH RATE OF CONSTRUCTION SECTOR

	1993	1994	1995	1996	III 1997
Annual growth rates (%)					
GDP	3.8	5.2	7.0	6.0	7.6
Industrial sales	6.4	12.1	9.7	8.5	7.8
Manufaturig	10.4	13.7	11.6	10.5	10.7
Construction	4.5	0.3	5.6	7.8	23.6

Source : Polish Central Statistical Office(GUS)

After 1989, the growth rate of construction sector dropped 10.7% in 1990 compared with the previous year. Since then, however, the output of the construction industry has been increasing, since 1991. Trading in construction material has been prospering as well.

3) Distribution systems for small projects and large project differ

In order to reduce the cost of housing construction, many individual owners of housing construction go direct to manufacturers to buy basic materials such as bricks. They utilize the traders when looking for interior goods since the stores display a variety of products.

In the case of large projects, the general contract enterprises commission traders to deal with construction materials.

The role of traders in Konin Province is for individual small projects.

4.6 Passenger Transportation

4.6.1 Passenger Transportation by Rail

For Polish commuters, railway seems to be unpopular mode of transport compared with situations in other Western European or Far Eastern cities. A detailed analysis on rail commuters' market has not yet been conducted, however, the number of season ticket users in Table 4.6-1 indicates the current situation of rail commuter traffic in big cities of Poland. Even in such big city as Warsaw, the number of railway users are only 75.6 million people in a total or 207 thousand people per day and that of season ticket users (most of them would be commuters) are 32.9 million people as a total or 90,000 people per day.

Many people use either their own cars, bicycles or buses for commuting. The Timetable for this situation, following reasons are:

1) The railway service is not convenient for the use of commuting;
2) Trains is not necessarily punctual;
3) Ordinary trains take too much time to get to the destination, while there is no rapid train service for commuters;
4) Rail fares are relatively expensive compared with those of bus;
5) Road congestion at the peak hours is not yet serious as are in cities of Western industrialized countries; and
6) People are living in places near to their working places and are not necessary to commute for long distance.

Many users of train service complain about deficient passenger services of railways. On the other hand, railway operators are reluctant to introduce new services such as rapid train services for commuters since the demand such service and the profitability of such service are uncertain.

As is shown in Figure 4.6-1, the Polish National Railway (PKP) is now modernizing E-20 Line (Kunowice-Poznan-Warszawa section) and planning to introduce fast trains for its Inter City passenger service. The maximum speed of train in this service will be 160 km/hour for the major sections of Poznan-Konin-Kutno section. The construction works for modernization are scheduled to be completed by the end of 1998 and the new services will be

introduced in early 1999. Once the fast train is successfully introduced to E-20 Line, the timetable for this section will have enough capacity to have additional passenger services.

It is likely to introduce new passenger service for E-20 Railway Line once the modernization work on the line is completed. One possible service will be the introduction of new rapid commuter services for suburban lines in big cities. If this kind of service is introduced, Warszawa would be the first choice to be serviced and Poznan would be the second. It should be taken into account that the introduction of new service often stimulates demands and changes in the ways of thinking of people.

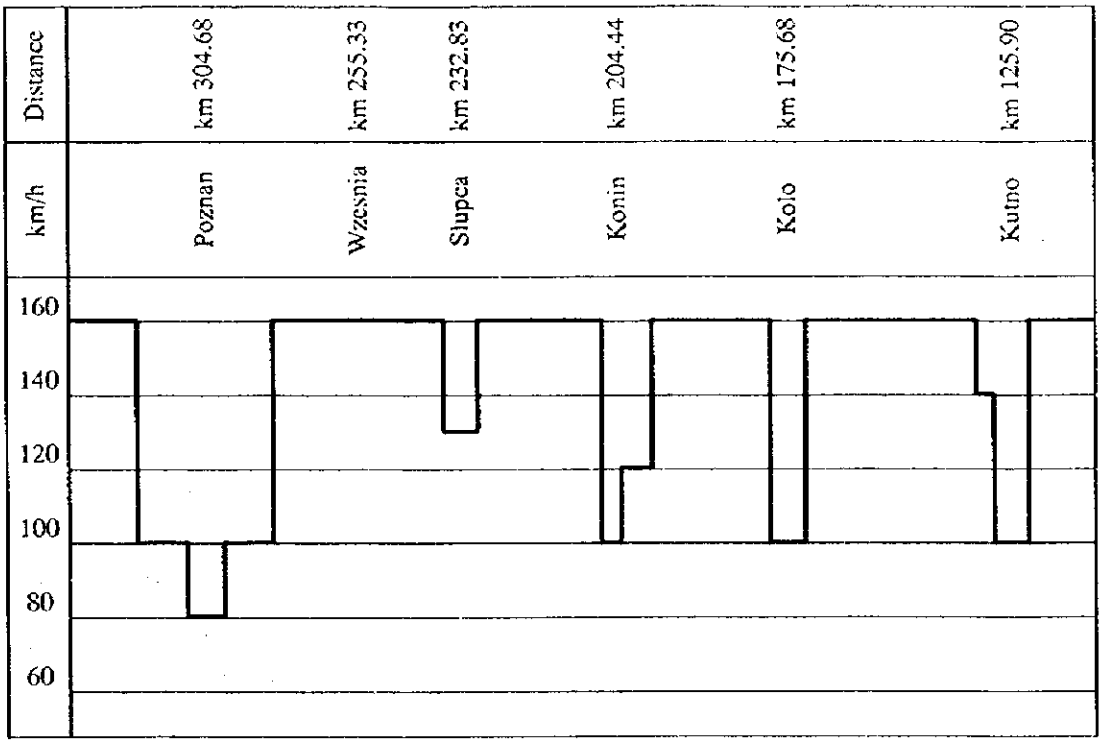
Table 4.6-1 RAIL TRANSPORT PASSENGERS IN BIG CITIES IN POLAND

(Unit: '000)

	Total	Single Ticket	Season Ticket	Others
Total	286,103	117,609	102,330	66,164
%	100.0	41.1	35.8	23.1
Warszawa	75,629	27,332	32,896	15,401
%	100.0	36.1	43.5	20.4
Gdansk	60,283	24,302	22,353	13,628
%	100.0	40.3	37.1	22.6
Katowice	31,323	14,257	9,043	8,023
%	100.0	45.5	28.9	25.6
Wroclaw	13,339	5,900	4,106	3,333
%	100.0	44.2	30.8	25.0
Poznan	12,608	5,132	4,578	2,898
%	100.0	40.7	36.3	23.0
Bielsko-Biala	13,934	5,404	5,489	3,041
%	100.0	38.8	39.4	21.8

Source: PKP, Rocznik Statystyczny, 1996

Figure 4.6-1 PLAN OF E-20 RAILWAY LINE AFTER THE MODERNIZATION IN 1998



Source: Ministry of Transport and Maritime Economy

4.6.2 Bus Transportation

(1) Restructuring of PKS companies

Currently, bus transportation services are mainly provided by PKS companies all over the country. In December 1996, the Minister of Transport and Maritime Economy decided to establish Programming Policy Council in order to proceed with the restructuring of PKS companies. The Council has the following tasks:

1) Work out a program for restructuring of PKS companies;
2) Supervise the implementation of the program; and
3) Give opinions on proposals of founding organs of PKS companies concerning restructuring and ownership transformation of PKS companies.

Preparations for the program for restructuring PKS companies were worked out in June 1997. During the later half of 1997, a number of consultations with PKS companies were conducted. At present, details of the program are being verified prior to presentation to the Board of Ministers.

(2) Current situation of bus transportation services in Konin

Bus transportation services in Konin is currently provided by three PKS companies, namely PKSs-Konin, Turek and Kolo. They provide following number of regular bus services:

PKS Konin	224 routes	989 services/day (260 drivers)
PKS Turek	194 routes	726 services/day (160 drivers)
PKS Kolo	73 routes	514 services/day (119 drivers)

The total number of buses used for regular route services and other purposes are shown in Table 4.6-2. The average size of buses used in Konin is distinctly smaller than that of national average reflecting the smaller demand per service in Konin: medium or small buses of 16-45 seats comprise 77.7% of total bus fleet in Konin, while national average is 58.7%,

and large buses of more than 45 seats comprise 12.0% in Konin, while the national average 26.3%.

Although all three companies had positive net profits at the end of 1996, their regular passenger transportation business is gradually shrinking because of the decrease in the number of passengers and a new emphasis on diversification into car repairing and controlling services, sales of spare automobile parts and fuel, domestic and international tourist bus operations, school excursions, freight transportation by truck, etc. In the case of PKS Konin, such additional service activities comprise around 40% of its total revenue and are still expanding.

All three PKS companies consider that the decrease of passengers has been brought about by the following factors:

1) Motorization;
2) Low level of economic activities in the region, reflected in the increase of unemployed people; and
3) Low income level compared with the bus fare.

Table 4.6-4 exhibits a present bus tariff applicable to all PKS companies in the country. A fare of normal monthly ticket, PLN 92-94 for the average travel distance of 20 -30 km, seems to be expensive compared with the minimum monthly salary of PLN 550.

None of three companies seem to be confident over the future prospects for regular passenger transportation service. However, the people in Konin use bus services relatively intensively compared with the national average. As is indicated in Table 4.6-3, the number of PKS bus passengers in Konin is 2.5% of the national PKSs total, which is much higher than the province's 1.2% share of the population.

Table 4.6-2 NUMBER OF BUSES IN KONIN (1996)

	Total	Ordinary Buses			Trailer Buses
		up to 15	16 - 45	more than 45	
Poland Total (A)	87,221	11,143	51,233	22,949	1,896
%	100.0	12.8	58.7	26.3	2.2
Konin (B)	1,078	81	834	129	34
%	100.0	7.5	77.4	12.0	3.2
% (B/A)	1.2	0.7	1.6	0.6	1.8

Source: Ministry of Transport and Maritime Economy

Table 4.6-3 PASSENGER TRAFFIC BY PKS BUSES (1996)

(Unit: '000, %)

	Passenger	Passenger-km	Average km
Poland Total	998,508	29,538,588	29.6
Konin	25,070	607,323	24.2
%	2.5	2.1	-

Table 4.6-4 OFFICIAL TARIFF RATE APPLIED FOR PKS BUSES

Distance km	Full-price Ticket	Half-price Ticket	Monthly Ticket	Monthly Half-price	Monthly Student
	PLN	PLN	PLN	PLN	PLN
0 - 5	1.00	0.50	35.00	18.00	18.00
6 - 10	1.20	0.60	38.00	19.00	19.00
11 - 15	1.90	0.95	63.00	31.50	31.50
16 - 20	2.00	1.00	65.00	32.50	32.50
21 - 25	2.70	1.35	92.00	46.00	46.00
26 - 30	3.00	1.50	94.00	47.00	47.00
31 - 35	3.50	1.75	116.00	58.00	58.00
36 - 40	3.70	1.85	120.00	60.00	60.00

Note: The above tariff rates include VAT.

They operate even unprofitable routes because they are receiving subsidies to do so from the Government. The companies cannot help ending loss-making services or decreasing the frequency (quality) of service. In such cases, companies consult with gminas on the route where which they are going to close or decrease services, to see whether the gminas would be prepared to compensate them for a part of the losses. However, no gmina has ever agreed to pay for a part of PKS losses in order to keep the bus transportation services as they were. The results are always decrease in service and, hence, the deterioration of the standard of living of people in the area.