

## 3.6 Land Use Development

### 3.6.1 Conclusion and Key Issues

#### 3.6.1.1 Land Use Plan

##### (1) Current land use in Konin Province

Land use in Konin Province is comprised from the following major criteria. The ratio of occupation to total 513,800 ha. in each criteria are the followings;

|                           |        |
|---------------------------|--------|
| Agricultural land:        | 73.1 % |
| Forestry:                 | 15.3 % |
| Water area:               | 2.4 %  |
| Roads and transport area: | 2.6 %  |
| Housing area:             | 2.4 %  |
| Others:                   | 4.2 %  |

##### (2) Institutional issues

Department of Spatial Planning of Office of the Governor has roles to formulate overall land use plans in the province. Also each municipality is functioning as a planner and implementation body of their own land use. Office of the Governor has no budget to implement the plan. On the contrary, each municipality is obligated to implement its plans using income of the municipality. These plans are frequently discontinued due to lack of funds. Such complicated situations often make confusions between Office of the Konin Governor and municipalities.

Setting priorities of the central government for land use in Konin is low compare to other provinces. Konin province and municipality need strong support from the central government for implementation of land use plans to put them into effect.

##### (3) Agriculture and industrial area

Agricultural area occupies more than 70 % of land in Konin. And it is scattered throughout the province. Some area, particularly near to urban and suburban area, is coexisted with both industrial and residential area. It

is creating problems such as water contamination and air pollution from industry as well as wastes from residential area. It is required for the province to reallocate industry from agricultural area.

In the province, factories and business enterprises are scattered without forming a significant industrial concentration and create various problems including pollution and mobility in terms of transportation of goods and commuting of employees. Some factories discharge industrial effluents without proper treatment to nearby farmland, causing secondary pollution. Preparation of setting re-allocation programs for such industrial area is the most urgent matter for the province. These problems must be overcome by building or improving adequate facilities, e.g., treatment plants and road networks, and promoting pollution control measures at each factory, most of which require substantial investment and are very difficult to be implemented under current financial constraints.

(4) Commercial and urban area

Land use plan on development of both commercial and urban area in Konin have not been established since 1986.

Commercial area in Konin is scattered in major cities. And most are small scale. It is required for the province to review existing conditions of the commercial area of the major cities in Konin. Preparation of commercial area is the most essential element to vitalize commercial activities in the province.

Due to the lack of urbanization development plan, it is creating issues such as in-modernized urban area, scarcity of housings, traffic congestion, mobilization of labor forces, and mixed allocation of both agriculture/industries and residential area. It is required for the province to establish appropriate land use plan to solve such issues.

(5) Forest and tourist area

Forest area occupies 15% of the total land in Konin. Afforestation program in each municipality is now under planning stage with the cooperation of National Environmental Protection Agency of the central

government. According to the plan, total area of 1,463 ha. between 1997 and 2000, and 4,464 ha. between 2001 and 2010 will be afforested.

The regions where occupied by large portion of the land such as Powidz, Witkowo, Dobra, and Uniejow are designated as tourism development area, however water contamination caused by human wastes is raised as the most serious issue in those area. It is caused from illegal housing settlement by the developers. When preparing land use plan on the areas, it should be considered along with the plan on both tourism development. Also it is necessary to designate the area as nature conservation or environmental protection area. Preparation of basic infrastructure such as construction of sewage system and water treatment system are required.

(6) Mining and reclaimed area

In the province, two companies are involved in mining activities; namely KWB Konin and KWB Adamow. In KWB Konin, a total of 8,881 ha. of ground has been used and re-cultivation covers 3,500 ha., while 4,726 ha. are under mining operation. In KWB Adamow total open pit area used from the very beginning of the mine and up to 1995 covers 4,795 ha. Present open pit area covers 2,214 ha. Reclaimed dumping grounds used for agriculture, forest and water reservoir are 1,390 ha. and 247 ha. respectively.

Konin is much influenced by mining for better or worth. Not only supplying job opportunities, but it gives source of electricity and heat to the residents. Also its reclaimed area gives spaces for agriculture, forestry, water area and other various opportunities for multipurpose use. In other hands, mining area creates causes of many issues such as influencing drainage system in surrounding area and destruction of natural environment.

Managing mining area and establishment of appropriate land use plan on reclaimed area needs greater effort. It can be accomplished by not only making self-effort of individual mining company, but needs consultations from the residents and Office of the Konin Governor.

### **3.6.1.2 Infrastructure within the Province**

#### **(1) Current status of Konin Province**

There is a great difference on preparation of infrastructure among the provinces in Poland. And Konin is further behind position comparing with other provinces in the country. As reported in Table 4.2-5, living standards ranked the Konin province at 41<sup>st</sup> of 49 provinces in grade of technical infrastructure preparation.

Also, there is differentials on the level of conditions of infrastructure among municipality within the Province. It is obvious that this will create more social and economic gaps between rich (urban) and poor (rural) municipality.

#### **(2) Institutional issues**

National government is only responsible for preparation of nation wide infrastructure development within the province, including construction and maintenance work of national roads, preparation of power lines for electricity and telecommunication lines.

Each municipal government in the province is obligated to raise its funds for preparation of infrastructure. Some portions of funds are shared by the national government when municipal government establish their own or inter-municipal joint project are planned. For example, when each or inter-municipal government is intending to establish waster treatment facilities, a portion of subsidy comes from the National Environmental Protection Agency. However, the amount of subsidy is not satisfactory to implement such big project and most municipal government are facing problems on implementing preparation of infrastructure .

#### **(3) Roads**

Roads in Konin are classified into three types depending on how those are managed by the certain level of government. First, national roads, including International Highway A2, of which the national government is in charge of construction and maintenance activities. Second, provincial roads which are managed by Office of the Konin Governor. Finally,

municipal roads of which each municipal government has whole responsible on planning, construction and maintenance works. Among total length of 6,431 Km within the province, 45 % of the road is classified as national roads, 4 % as provincial roads, 51 % as municipal roads respectively.

a. National roads including International Highway A2

Up to present time, Highway A2 is completed only total length approximately 30 km between Wrzesnia of Poznan Province and Stare Miasto of Konin Province.

Since Motorway A2 is considered as an advantage for further development of Konin, it is required for Office of the Konin Governor to promote initiation of rest of construction area in early stage to the central government.

Problems on traffic congestion along highway 2 should be considered as a national level issue. For instance, traffic through the intersection between the two roads in the suburbs of Konin City, including convergence of vehicles from A2 and 469, soared 250% between 1990 and 1995. Similarly, the number of vehicles passing through Kolo City grew 66% on No.2, 47% on No.473 and 14% on No.270, when measured at their intersections with No.2 and 25, suggesting the high levels of traffic congestion at intersections of trunk roads. This is also evidenced by the number of traffic accidents attributable to or related to traffic congestion, which increased some 12% on No.2 between 1996 and 1997 and 32% on No.25.

Recently, vehicular traffic in these cities has been on the rise to create various problems. Between 1990 and 1995, traffic volumes passing through Turek, Slesin and Sompolno surged 111%, 19% and 15% respectively. Turek City experiences the rapid growth of traffic as vehicles coming from neighboring provinces of Lodz, Kalisz and Sieradz increasingly flow into trunk roads, International Highway A2, national highway No.25 and No.2. Although the city has constructed a bypass road between national highway No.469 and 470, which runs

around the city area, vehicles using No.469, 470 and 472 must pass through the city area, aggravating traffic congestion there. In Sompolno, 4 trunk roads run through the urban area. Because these roads have rotaries in the city center, which are located in commercial areas with parking facilities, bus stops and shopping districts, traffic congestion is accelerated. In Slesin, national highway No.25 and 263 cross in the central part to create heavy traffic congestion. In particular, No.25 is one of trunk roads serving as a major route of transportation connecting municipality in the province as well as the province and neighboring provinces, and it is connected to tourist resort area such as Powidz, resulting in mixed traffic flow of trucks, buses and passenger cars.

A primary route to the tourism area uses national road No.25, driving northward and via Slesin, followed by Routes 262 and 263, or Route 262 only (via Kazimierz Biskupi and Kleczew). These routes, however, have various problems to adversely affect accessibility. First of all they include a large number of very narrow sections, and must pass through three city areas. There are a few dozens of steep curves that disturb with smooth driving of large buses. Finally, there are the absence of proper road signs in required locations.

b. Provincial roads

Provincial roads are mainly running through inside of urban area, such as city streets near to city center area of major cities. It consists from not only motor ways but include side walks. Office of the Konin Governor has whole responsibility on planning, development, construction, and maintenance work activities of the provincial roads.

Although most provincial roads in the province are fairly well developed in the cities, some minor rehabilitation work such as adjustment of difference of level of the road and lining at pedestrian crossings are required in several spots.

c. Municipal roads and bridges

Municipal roads occupy more than 50 % of the total length of the road. The roads have important roles as means of inter-municipality transportation, particularly for transporting agricultural products. However, conditions of accessibility to major roads and inter-Municipal roads is very low. There are many areas which have poor access to national roads 2, 25, and other national roads. In particular, municipality where locate farther from Konin City can hardly gain access to those roads. These include Zagorow, Grodziec, Orchowo, Ostrowite, Przedecz, and Swinice Municipality. Also, many of the bridges spanning over municipal roads are poorly maintained. Besides, there are many areas where construction of a new road bridge is needed.

Each municipality is obligated to maintain its roads. However, because of insufficient budget for road maintenance, municipal roads in most municipality are not maintained properly.

After the administrative unit were transferred from POWIAT to municipality in 1975, however, bridge maintenance budgets have been cut back to prioritize construction of schools and hospitals, and the bridges have substantially dilapidated. Today, 31 bridges, around one third of the total 87, are believed to require rehabilitation or reconstruction within the next few years. In particular, bridges over the Warta River and its branches are inundated during the floods to hinder traffic of large trucks carrying harvested farm products. Also, snowfalls and rains often disturb with transportation of daily necessities such as food and fuels. Moreover, while the municipal bridges form transportation networks connecting municipality, they cannot be used to transport certain types or quantities of goods, forcing vehicles to make a detour. In consequence, low-speed trucks and tractors run on national roads to aggravate traffic congestion.

(4) Railroad and water transportation

Length of the railroad in Konin is 6.2 km per 100 km<sup>2</sup>. This number indicates that it is quite low compare to the national average 7.5 km and

even compare to the neighboring provinces such as 10.4 km in Lodz and 11.1 km in Poznan respectively.

The Ministry of Transport and Maritime Economy of the national government has a plan to stop rapid train service in Konin. The Euro-train which is now under planning in international-wise project has no plan on stopping in Konin.

Railroad system which is dedicated only for carrying coals continues to function as transporting coals from the southern part of the country.

Currently there seems no particular problem to be raised on railroad systems.

Warta River is running across the province and FUGO often carries ship parts by barge. However, expansion of water transportation can not be expected due to shallow bottom of rivers.

(5) Water supply and sewage system

Balance of water demand and supply is fairly stabilized in urban area. On the contrary, it has unbalances in rural municipality, particularly the area called poor municipality including Rzgów, Rychwał, and Grodziec. It is caused since residential areas are located in spread area, supply of water has difficulty to catch up with the demand.

Sewage system is also well furnished in urban area unless drainage pipes are blocked out and to be repaired in many spots. In most rural area, sewage system is not well prepared due to the same residential conditions as indicated above.

Designation of specific areas by the province as prospective tourist areas has created various negative impacts on the area and its development process. The prospect has encouraged uncontrolled development in the Powidz, Ostrowite and Witkowo Municipality, accelerating environmental pollution and destruction of a local ecosystem in some cases. In particular, development projects led by many private investors are carried out by



ignoring various legal requirements for construction of hotels, cottages and other houses, such as the laying of water mains, connection of lead pipes to septic tanks, and strictly controlled transportation of wastes to treatment facilities. As a result, untreated sewage and household wastes are discharged into lakes and forest, smearing a public image as the tourist area and polluting the environment. Despite the situation with grave concern, Office of the Konin Governor has failed to conduct sufficient monitoring activities to enforce the applicable law to unlawful development projects, allowing the spreading of uncontrolled development activities.

As most disposal sites are located in or near farmland or forest in a scattered manner, they create serious environmental problems including contamination of ground water and creation of secondary pollution. As garbage collection charges are directly collected from households on a tonnage basis, some households avoid payment by disposing their wastes to forest, farmland or lakes. Preparation of sewage system in such area is highly required and immediate action should be taken into consideration as an urgent project.

(6) Others

a. Gas supply

The diffusion rate of gas supply varies depending on the locations among the province. Urban areas, except Slupca, are furnished with natural gas supply systems. However, it is limited only to the cities but not covered in suburban area. Raising the diffusion rate of natural gas supply system and substituting propane and hard coals to natural gas should be considered by the province.

b. Electricity

The diffusion rate of electricity to the resident is nearly 100 % at present time. Power generation companies have enough capacity on generation and supply electricity not only in the province also on demands from other regions of the country.

c. Telecommunication

The diffusion rate of telephone is increasing every year at rate of 14 % .  
And the supply of transmission lines will be furnished upon request  
from the subscribers. There seems no problem exist at present.

### 3.6.2 Sectorial Development Framework

#### Development potentials

- 1) Konin Province is located in **the center of the country** and is crossed by trunk roads and railways.
- 2) **An international highway (A-2)** has been partly completed between Konin and Poznan and finally connect to Moscow.
- 3) **Space is ample** for integrated land use development.
- 4) Places suitable for **recreation and relaxation** are available throughout the province.

#### Development constraint

- 1) The **local administration system** is not suitable for wider and integrated (inter-Gmina) land use.
- 2) **Available development funds** are often insufficient especially for bigger or inter-Gmina projects.
- 3) **The scale of demand and markets** in the province are too small to justify investment in big projects for land development.
- 4) **Current land use plans** are not necessarily realistic from the viewpoint of execution.

#### Development concept and strategies

#### **Development with harmonization of rural and urban functions**

*Strategy 1: Further invigoration of function in urban area*

*Strategy 2: Intensification of sector-oriented land use*

*Strategy 3: Preparation of residential area*

*Strategy 4: Improvement of infrastructure within the province*

## **3.7 Manpower Development**

### **3.7.1 Conclusion and Key Issues**

#### **(1) Structural characteristics of Konin Province education**

In Poland in general the number of persons desiring higher education is increasing. The rate of advancement to university or college (the ratio of the population in the 19-24 age bracket that is enrolled in university or college) has risen from 13% in 1990 to 26% in 1996. Advancement to institutions of higher education is especially high for graduates of the general secondary schools. Arrangements exist whereby graduates of vocational and technical schools can go on and acquire a college degree. The basic vocational schools, however, do not qualify graduates for college entrance.

In the near future the educational system will be changed and it will become possible for all graduates of high schools to advance to college or university. Even after the change, however, it is likely that the advancement rate will continue to be high for general secondary schools. The situation in the Konin Province public school system, however, is retarded with regard to satisfying the demand for higher education. This may be seen from the comparison of Konin Province with the national average, using information from the EU, as shown in Figs.3.7.-1 and 3.7-2. The first shows that the general secondary schools are not adequate and the second figure shows that graduates of basic vocational schools in Konin Province surpass the national average in obtaining employment.

#### **(2) Out-migration of youth**

Young adults, that is, capable graduates of colleges and universities, prefer to not stay in Konin Province but to seek employment in nearby cities in other provinces, such as Poznan. There are two reasons for this. First, there is no college or university in the province offers a wide choice of subjects, as all of them are dedicated to certain specific subjects only. Although there is a branch of a university (University of Koperniks, in Torun, in order to obtain a diploma it is necessary to attend the main school, outside of the province. Second, Konin Province does not offer attractive employment opportunities for college graduates.

(3) Demand for human resources in industry in Konin Province

Industrial employers in Konin Province can be classified as being either the formerly state owned corporations or small and medium enterprises (SMEs). The former are restructuring and are not expected to generate large scale demand for employees. The latter category, however, has strong demand for employees.

Managers of these small and medium scale enterprises that were created during the 1990s acquire their skilled labor by accepting students at basic vocational schools as trainees, and hiring them after graduation (e.g., this is done in the garment industry). These companies are also interested in hiring people who have completed a higher education, especially for work in general management, finance and accounting, and technical (engineering) areas. Although there is some degree of uncertainty as to their need for college graduates, it may be stated that there is demand for such persons in the province.

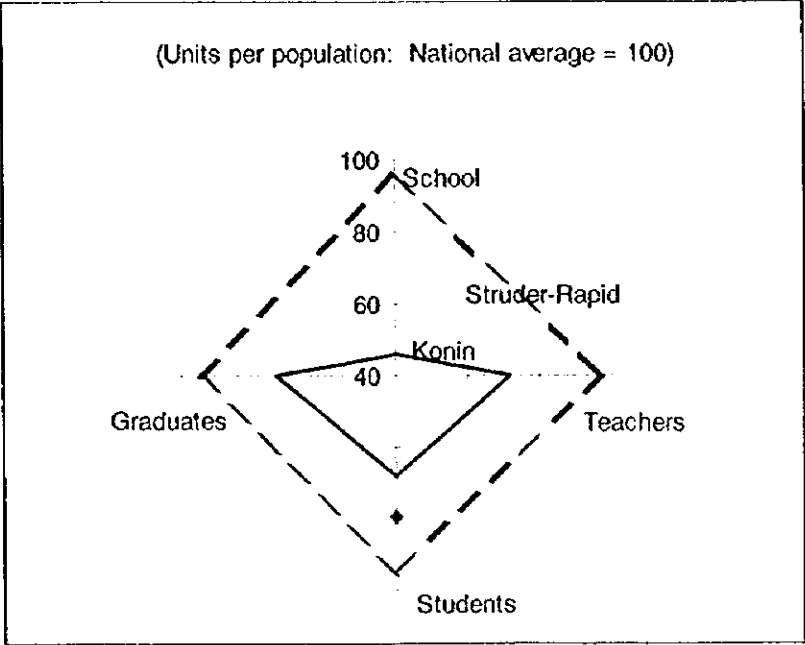
(4) Measures related to population mobility

It will be necessary for the structure of industry and employment in Konin Province to change radically by the year 2010. In this connection the most important problems are the actual and potential rural unemployment, and retraining of employees of the former state-owned corporations who are made redundant by the restructuring process.

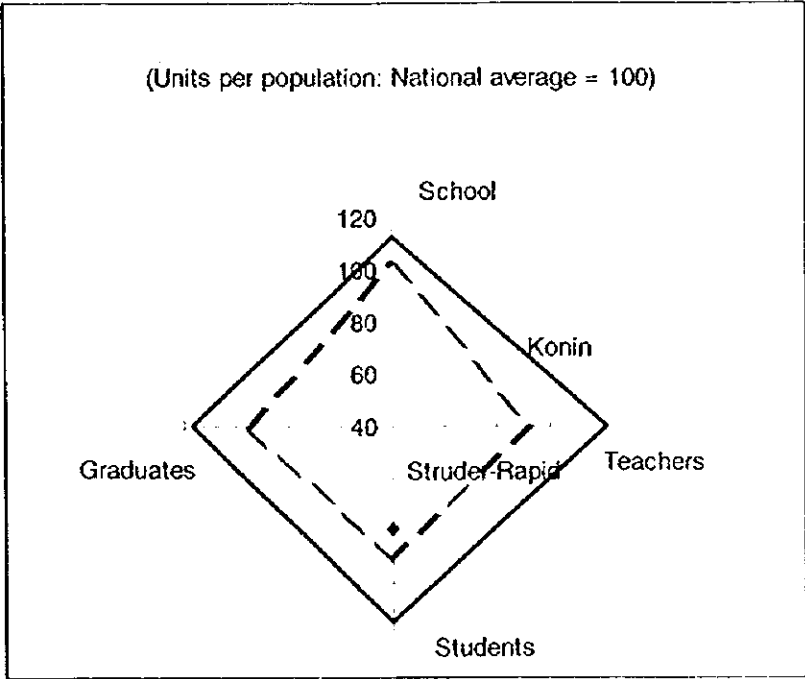
(5) Re-education of managers

When visiting companies and production facilities, the impression obtained is that there is little awareness that the companies will survive or be eliminated through the process of competing with others. This is especially true at the formerly state-owned corporations. Among the newer companies that have been started during the 1990s, many are found to be low in productivity and weak in respect to management of quality. The shortcomings of these views and existing conditions must be corrected by inculcating in the managers of all of these companies the modern managerial precepts and practices that are essential to doing business in a modern market economy. They must be brought into contact with the current, world-class techniques of management.

**Figure 3.7-1 GENERAL SECONDARY EDUCATION INDEX**



**Figure 3.7-2 BASIC VOCATIONAL EDUCATION INDEX**



### 3.7.2 Sectorial Development Framework

#### Development potential

- 1) There is a **demand for highly educated young personnel** among the existing enterprises in the province.
- 2) There is a plan to establish a new management college in Konin Province .
- 3) Provinces have acquired **greater possibilities for improvement** of the educational system, as a result of recent deregulation.

#### Development constraints

- 1) **Financial resources** available for the educational sector are limited.
- 2) **Neighboring provinces** have attractive facilities for higher education including universities.

#### Development concept and strategies

##### **Supply of manpower suitable for market economy**

*Strategy 1: Provision of higher education opportunities*

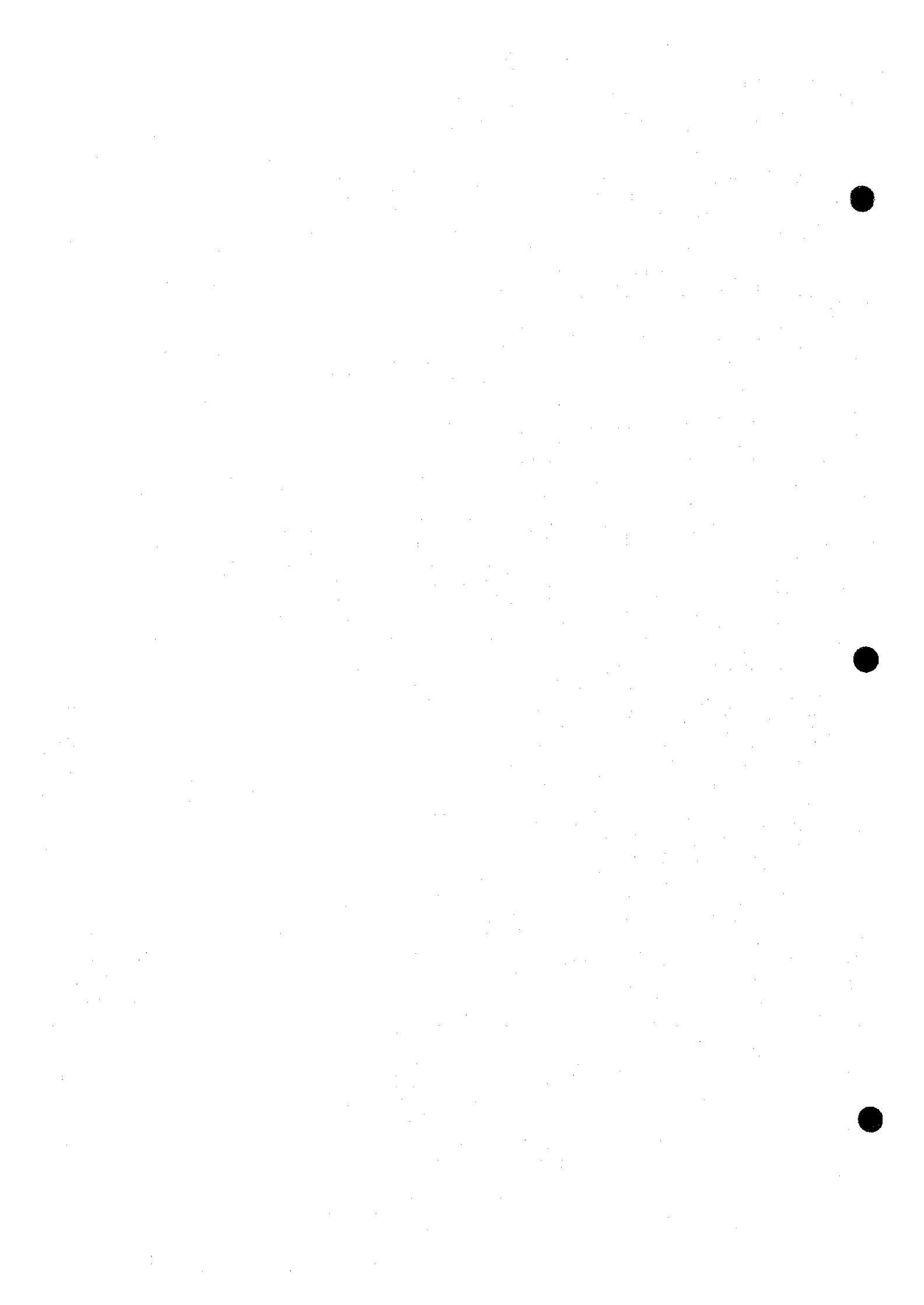
*Strategy 2: Adjustment of the education system to market needs*

*Strategy 3: Improvement of management skills in enterprises*

*Strategy 4: Mobilization of manpower in the province*

## **Chapter 4**

# **MASTER PLAN FOR REGIONAL DEVELOPMENT OF KONIN PROVINCE**





## **Chapter 4 MASTER PLAN FOR REGIONAL DEVELOPMENT OF KONIN PROVINCE**

### **4.1 Adoption of Project Cycle Management Method**

#### **4.1.1 Introduction**

The Project Cycle Management (PCM) technique was adopted for the Study in order to insure a consensus among the counterparts from Konin Province and the members of the Team in formulating regional development concepts and strategies. The PCM is a modification, developed in Japan, of the ZOPP (Objective-oriented Project Formulation) technique developed by GTZ (German Technical Cooperation) in 1983.

Konin Province had been making its own regional development plan before the JICA study began. The Regional Development Agency in Konin (RDA-Konin) organized strategic workshops concerning the direction of development of Konin Province, starting from 13th June, 1996. It was called the RDA Network project. The RDA Network project is being undertaken by the National Association of Agencies and Foundations for the Regional Development (KSAiFRR) in Warsaw, with financial support from the EU. RDA-Konin was selected as one of six RDAs in Poland for the project.

RDA-Konin invited representatives of institutions, social organizations and industries in Konin to the strategic workshops for participatory planning of the direction of development. The ZOPP method was used at the workshops at KSAiFRR's recommendation. The workshops were held on the following dates:

|                       |  |
|-----------------------|--|
| 13 June, 1996         | Participation Analysis (1day)              |
| 3-5 September, 1996   | Problem Analysis/Objective Analysis(3days) |
| 23-25 September, 1996 | Alternative Analysis(3days)                |

RDA-Konin summarized the results of the workshops in a report, "The Direction of development of Konin Province," in December, 1996.

Methodology of PCM does not basically differ from that of ZOPP, but hereinafter it is called "PCM" for the Study and "ZOPP" for RDA-Konin just for convenience.

Reviewing the summary report on the ZOPP workshops, the Team recognized that the subject of the ZOPP workshop was quite similar to that for the Study. The Team, however, adopted the PCM technique sector by sector since the Study was designed according to a "Sectoral Approach Method." The Team nevertheless will refer to the results of the ZOPP workshops for participation analysis. The Team conducted workshops three times highlighting two economic sectors — agriculture and industry — that are the crucial areas of the Study. As for other sectors, the Team identified core problems and related issues by itself due to time constraints.

#### **4.1.2 Methodology of Planning**

Participatory Planning (PP) method is used in the project planning stage in PCM, which consists of the following steps:

(1) Participation analysis

Participation groups that will be willy-nilly involved in the project are listed up in a table, including beneficiaries, negatively affected groups, decision makers, funding agencies, implementing agencies, community leaders, potential opponents and supporting groups.

(2) Problem analysis

First, a core problem that the project or the target group of the project currently faces is identified. Second, the core problem is analyzed in a top-down sequence using cause-effect relationships, and finally a problem tree is built. All the problems are expressed as in negative expressions.

(3) Objective analysis

An objective tree is built by converting the negative expressions of the problem tree into positive ones, with some adjustment as necessary. Thus, the cause-effects relationship in the problem tree changes into a means-ends relationship in the objective tree.

(4) Alternative analysis

Similar means in the objective are grouped together into two or more alternative approaches. The alternative approaches are means for achieving the core objective or resolving the core problem.

(5) Project Design Matrix (PDM)

One or more projects are worked out to attain an alternative approach, and then a PDM is drawn up for each project. The PDM, a standardized format in form of a matrix, contains overall goals, a project purpose, outputs of the project and activities of the project. In addition, input requirements, verifiable indicators and important assumptions are clarified in the PDM as shown in Table 4.1-1.

**Table 4.1-1 PROJECT DESIGN MATRIX(PDM)**

| Narrative Description | Verifiable Indicators | Means of Verification | Important Assumption |
|-----------------------|-----------------------|-----------------------|----------------------|
| Overall Goal          |                       |                       |                      |
| Project Purpose       |                       |                       |                      |
| Outputs               |                       |                       |                      |
| Activities            | Inputs                |                       |                      |
|                       |                       |                       | Pre-condition        |

**4.1.3 Method and Outcome of PCM Workshop**

(1) Participation analysis

The Team evaluated the results of the ZOPP workshops and concluded that the participation analysis of the ZOPP workshops can be used as - is as shown in Table 4.1-2. The participants in both the Study and the ZOPP workshops shall be the same because they have the same goal, that is regional development in Konin Province.

**Table 4.1-2 PARTICIPANTS ANALYSIS**

| <b>GROUPS</b>                      | <b>PARTICIPANTS</b>  |
|------------------------------------|--|
| <b>LOCAL ADMINISTRATION</b>        | <ul style="list-style-type: none"> <li>- Provincial Statistical Office - Provincial labour Office</li> <li>- Provincial fund of Environmental Protection</li> <li>- Treasury Office - Agrarian Property Agency of the State Treasury</li> </ul>                                |
| <b>TRADE UNIONS</b>                | <ul style="list-style-type: none"> <li>- Farmer's Unions - Trade Unions' Representatives</li> </ul>  |
| <b>MEMBERS OF PARLIAMENT</b>       | <ul style="list-style-type: none"> <li>- Members of Parliament from Konin Province</li> </ul>  |
| <b>STRATEGIC ECONOMIC ENTITIES</b> | <ul style="list-style-type: none"> <li>- Companies interested in highway construction - Big companies</li> <li>- KWB "ADAMOW" SA - HUTA ALUMINUM "KONIN" SA</li> <li>- ZE PAK SA - KWA "KONIN" SA</li> </ul>   |
| <b>FINANCIAL INSTITUTIONS</b>      | <ul style="list-style-type: none"> <li>- Banks - Insurance Companies</li> </ul>  |
| <b>LOCAL SELF-GOVERNMENT</b>       | <ul style="list-style-type: none"> <li>- Regional Self-government Councils</li> <li>- Economic Council of Regional Self-government Councils</li> <li>- Representatives of important municipalities</li> </ul>  |
| <b>CENTRAL ADMINISTRATION</b>      | <ul style="list-style-type: none"> <li>- Agriculture Dept. in Provincial Office - Spatial Economy Dept. in Provincial Office - Economic Development Dept. in Provincial Office</li> <li>- Environmental Protection Dept. in Provincial Office</li> </ul>                       |
| <b>NGOs</b>                        | <ul style="list-style-type: none"> <li>- Head of Technical Organization - Guild of Crafts - Konin Chamber of Commerce - RDA SA - Self-government Society</li> <li>- Association of Economic Development &amp; Promotion</li> <li>- Association of Economic Entities</li> </ul> |

Source: The Direction of Development of Konin Province, December, 1996

(2) Problem analysis and objective analysis

Workshops were held three times for the sectors of agriculture and industry in the following manner. The Problem Tree and Objective Tree for each sector are attached to the end of the Sector Report. Trees for other sectors have not been prepared.

1) Participants

Participation was by ten persons from local counterparts, seven from Konin Province Office, one from KWB Konin, one from ODR Koscielce and one from Regional Development Agency in Konin. Nine persons out of ten members of the Team attended the workshops.

2) Subject

Problem analysis of two main sectors i.e., agriculture and industry

3) Rules

Each participant gave his or her ideas on the subject by writing on a card and thereafter all participants discussed appropriateness of those ideas on cards until a consensus was reached. No card was removed without the consensus of all the participants. Moderators were assigned from the members of JICA Study Team.

4) Schedule

First Workshop

Date and time: Thursday, 13th August, 1997 (9:00 hours-16:00 hours)

Place: Conference Room 100, Konin Province Office

Subject: Core Problem and Direct Causes Analysis

Second Workshop

Date and time: Friday, 22nd August, 1997 (9:00 hours-16:00 hours)

Place: Conference Room 200, Konin Province Office

Subject: Problems Analysis below Direct Causes

Third Workshop

Date and time: Friday, 29th August, 1997 (9:00 hours-16:00 hours)

Place: Conference Room 200, Konin Province Office

Subject: Completion of Problem Trees

(3) Core problems and sectoral development concepts

A core problem was identified for each sector, one for each of for seven sectors. Then, the core problems that were written in negative expression were converted to positive expression, that is "core objectives". Those core objectives are called "Sectorial development concepts" in this report. The core problems and the concepts are shown in Table 4.1-3.

**Table 4.1-3 CORE PROBLEMS AND DEVELOPMENT CONCEPT FOR EACH SECTOR**

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|    |   |  |
|----|---|--|
| 1) | Agriculture                               |  |
|    | (Core problem)                            | <i>Profitability of farms is low.</i>  |
|    | (Development concept)                     | <i>Improvement of profitability of farms in Konin Province</i>   |
| 2) | Energy and three key industries           |  |
|    | (Core problem)                            | <i>The three key industries do not enough create new businesses.</i>   |
|    | (Development concept)                     | <i>New business development with maximum utilization of the existing resources that companies own</i>        |
| 3) | Industry                                  |  |
|    | (Core problem)                            | <i>Industry is not diversified.</i>  |
|    | (Development concept)                     | <i>Diversification and invigoration of industry in Konin</i>   |
| 4) | Physical distribution, and transportation |  |
|    | (Core problem)                            | <i>Distribution and transportation system have not been modernized so as to serve the market economy.</i>    |
|    | (Development concept)                     | <i>Establishment of efficient distribution and transportation system corresponding to the market economy</i> |
| 5) | Tourist industry                          |  |
|    | (Core problem)                            | <i>Tourist resources in Konin are not fully utilized.</i>  |
|    | (Development concept)                     | <i>Full utilization of tourist attractions in Konin</i>  |
| 6) | Land use development and infrastructure   |  |
|    | (Core problem)                            | <i>Land use and infrastructure development is unbalanced between rural and urban areas.</i>                  |
|    | (Development concept)                     | <i>Development with harmonization of rural and urban function</i>  |
| 7) | Manpower development                      |  |
|    | (Core problem)                            | <i>Konin Province can not necessarily supply manpower to meet requirements of the market economy.</i>        |
|    | (Development concept)                     | <i>Supply of manpower suitable for the market economy</i>  |

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(4) Alternative analysis and strategies

Alternative approaches obtained through the alternative analysis are called "Strategies" in this report. The strategies are positioned as means to achieve the aims of the development concepts.

(5) Projects and PDM

Under each strategy, the Team identified projects which are to be components of the strategies or means to attain the aims of the strategies.

The identified projects are called "long-list projects", from which "priority projects" are selected for further detailed study. A Project Profile (PP) will be prepared for each long list project, a Detailed Project Study (DPS) as well as a PDM for each priority project.

The following compares terminology for PCM and this report:

| <u>Terminology of PCM</u>              | <u>Terminology of the report</u> |
|--|----------------------------------|
| 1) Core Objective/Goal (of the Sector) | 1) Sectorial Development Concept |
| 2) Alternative Analysis/Approach       | 2) Strategy                      |
| 3) Components/Projects                 | 3) Projects (long list)          |

#### **4.1.4 Comparison with the results of the ZOPP workshops**

Table 4.1-4 compares results of ZOPP workshops in 1996 and PCM of the Study in their narrative summary. Themes of both are almost the same: The ZOPP subject is "Direction of Development of Konin Province" and PCM has "Regional Development of Konin Province." The approach used is somewhat different one from the other. ZOPP first identified a core problem for the entire theme but PCM did it for each economic sector, e.g., agriculture, industry, etc. because of its "sector approach."

ZOPP had as its core objective "High tempo in development of Konin Province" that was a restatement of the core problem. PCM had five development frameworks as overall goals to be achieved through development of each sector. Table 4.1-4 compares a hierarchy made of ends-means relations in both ZOPP and PCM. Many projects will follow beneath the table 4.1-4 as means to achieve aims of strategies.

The following are brief similarities of and differences between results of ZOPP and PCM workshops.

1) Concepts and strategies under Frame 4 of ZOPP, "Balanced economic structure," are fully covered or more detailed in the case of PCM. Therefore, it can be said that the Study is by its nature much more conscious of economic development of Konin Province than ZOPP.



2) ZOPP workshops tend to seek problems in administrative and political matters which are hampering effective regional development. The Study basically treated those matters as items for policy recommendations.

3) ZOPP workshops neither mentioned the energy-fuel sector in Konin Province nor proposed new investment projects as a whole.

**Table 4.1-4 COMPARISON OF ZOPP AND PCM IN NARRATIVE SUMMARY**

| ZOPP Overall Narrative Summary                                 | PCM Overall narrative Summary  |
|--|--|
| Goal: High tempo of development of Konin Province              | Frame: Improvement of economic structure   |
| 1. Satisfactory tempo of economic restructuring                | Decrease of unemployment   |
| 2. Konin - as a central region (*)                             | Conservation of environment  |
| 3. Positive image of the province                              | Development axle towards Poznan  |
| 4. Balanced economic structure                                 | Strengthening of internal linkage within the province  |
| 1.1 Integrated development activities                          | 1. Improvement of profitability of farms in Konin  |
| 1.2 Productive local self-governments' activities              | 2. New business development with maximum utilization of the existing resources                           |
| 1.3 Definite policy for the fuel-energy sector                 | 3. Diversification and invigoration of industry in Konin   |
| 1.4 Competent management in public administration              | 4. Establishment of efficient distribution and transportation system corresponding to the market economy |
| 3.1 Promotion program of the province                          | 5. Full utilization of tourist attraction in Konin   |
| 3.2 Powerful lobby for the province                            | 6. Development with harmonization of rural and rural areas   |
| 3.3 Sound natural environment                                  | 7. Supply of manpower suitable for the market economy  |
| 3.4 Propaganda for image change                                |  |
| 4.1 Productivity improvement in agriculture                    |  |
| 4.2 Diversification of economic activities                     |  |
| 4.3 Well used tourist advantages                               |  |
| 1.1.1 To identify centers for regional development             | 1.1 Quality and productivity improvement   |
| 1.1.2 Consensus for regional development direction             | 1.2 Modernization of farm management   |
| 1.2.1 Local governments create climate for economic activities | 1.3 Development of effective marketing system  |
| 1.3.1 To work out common standpoint for direction              | 1.4 Diversification of agriculture   |
| 1.4.1 Clear criteria for promotion to management posts         |  |
| 3.1.1 Multinational programs for propaganda of the province    | 2.1 Utilization of surplus human resources and materials   |
| 3.2.1 Influential group in Parliament                          | 2.2 Utilization of less-utilized assets  |
| 3.3.1 Actions for improving environmental conditions           | 2.3 Development of user industries   |
| 3.4.1 Open pit mining lobby                                    | 2.4 Development of aluminum down-stream industries   |
| 4.2.1 Increased number of economic activities                  | 3.1 Investment promotion of new manufacturing industries   |
| 4.2.2 Outside(Foreign) investors invest in Konin               | 3.2 Restructuring of enterprises in transition to privatization  |
| 4.2.3 Well developed infrastructure for investors              | 3.3 Invigoration of small- and medium- scale enterprises   |
| 4.3.1 Investment in tourism                                    | 3.4 Establishment of institutional supporting system   |
| 4.3.2 Environmental improvement in tourist areas               | 4.1 Maximum utilization of potentials in transport infrastructure  |
| 4.3.3 Infrastructure for tourism development                   | 4.2 Strengthening of the freight transport sector  |
| 4.3.4 Sales promotion of touristically attractive areas        | 4.3 Promotion of trade and transaction   |
|  | 4.4 Improvement of commuting system  |
|  | 5.1 Strengthening of the existing tourism pattern  |
|  | 5.2 Development of new tourism pattern   |
|  | 5.3 Preparation of tourist infrastructure  |
|  | 5.4 Strengthening of Konin tourism promotion   |
|  | 6.1 Further invigoration of function in urban area   |
|  | 6.2 Re-allocation of farming area  |
|  | 6.3 Preparation of residential area  |
|  | 6.4 Improvement of infrastructure within the province  |
|  | 7.1 Provision of higher educational opportunities  |
|  | 7.2 Adjustment of education system to market needs   |
|  | 7.3 Improvement of management skills in enterprises  |
|  | 7.4 Mobilization of manpower in the province   |

(Note \*) '2 Konin - as a central region' of ZOPP is not correctly developed downward.

## **4.2 Present Situation of Konin Province**

### **4.2.1 Economic Geography**

#### **4.2.1.1 Location**

Konin Province with 480,000 population is located almost in the center of Poland. Konin City (population: 80,000) at the heart of the province is 200 km west of Warsaw (population: 1,640,000) and 100 km east of Poznan City (population: 580,000). It is also 100 km northwest of Lodz City (population: 820,000) and 100 km south of Bydgoszcz City (population: 390,000). Thus, Konin City is surrounded on three sides by the three big municipalities, each 100 km away.

By way of Poznan City, Berlin is about 350 km west of Konin City. Some 400 km east of Konin, via Warsaw, is Brest, a border town of the Republic of Belarus. Geographically, Poland adjoins Germany on the west and countries of the former Soviet Union on the east. Since Konin Province is located in the center of Poland, the same geographical relationship applies directly to the Province.

In terms of the economic relations with the above three municipalities that are each about 100 km away from Konin City, the City is most closely connected with Poznan. There are two reasons for this. For one, Konin had been a part of Poznan Province until 1975 when the former 17 provinces were reorganized into the present 49 provinces. Second, Konin has easier access to Poznan. For example, it took more than two hours to go from Konin to Lodz by car, whereas it takes one hour and 15 minutes to drive from Konin to Poznan. In order to travel from Konin to Lodz or Bydgoszcz by rail, one must change trains along the way. Socioeconomically, therefore, Konin Province is most closely connected with Poznan, followed by Lodz and Bydgoszcz in that order.

#### **4.2.1.2 Land Transportation**

A main road in Poland, National Road No.2 (Route E30) runs through Konin Province east and west. It may be said that this is the only trunk road that connects Berlin and Moscow via Warsaw. It is busy with long-distance trucks all day. A new Berlin-Warsaw-Moscow motorway (A-2) is under

construction. Only the 50 km portion from a point about 10 km south of Konin City toward Poznan City has been completed. As a "European road," this motorway is being constructed with financial aid from the EU. Land transportation of goods between Germany and the former Soviet Union, including Russia, must go through Konin Province.

National Road No. 25 runs through Konin City north and south, connecting Gdansk in the north and Katowice in the south. In Poland, there are several other important roads running north and south. Apparently, construction of a new north-south expressway is being discussed, but Konin Province has been left out of the plan.

With respect to railways, a trunk line connecting Berlin, Warsaw, and Moscow runs through Konin City east and west. This is a passenger/freight railway and express trains stop at Konin Station. A railway exclusive for freight trains runs north and south about 30 km east of Konin City. This railway that connects the coal mines in the south and Gdansk Port in the north is dedicated to the transportation of coal for export. In addition, a bullet train system is planned to be constructed between Berlin and Moscow. According to the plan, the bullet trains will run through Konin Province without stopping in the Province.

## **4.2.2 Social and Economic Position of Konin in Poland**

In this section, the social and economic position of Konin Province in Poland is described by comparing indicators for Konin Province with those for Poland as a whole.

### **4.2.2.1 Comparison of Basic Indicators**

The explanation that follows is based on the 1995 figures shown in Table 4.2-1. Konin Province accounts for 1.64%, 1.24%, and 1.08% of Poland's area, population, and GDP, respectively. These figures may well indicate the basic position of the province in the country. The fact that the share of the province dwindles in order of area, population, and GDP suggests that the population is small for the area and that the GDP is small for the population.

Looking at population density, the national average is 123.5 persons/square kilometer and Konin Province, with 93.3 persons/square kilometer, ranks 32nd among the 49 provinces in all Poland. In other words, in terms of population density, the province is positioned at about one-third of the way from the bottom.

With respect to per-capita GDP, the national average is 7,478 PLN and Konin Province, with 6,513 PLN (87% of the average), ranks 20th among the 49 provinces. The value-added per employee that shows the productivity of labor, was 15,069 PLN or 91% of the national average, ranking 16th in the country. The unemployment rate has been decreasing in both the whole nation and Konin Province in recent years. Even so, according to the 1995 figures, the unemployment rate in Konin Province is 18.1%, or the 18th worst, whereas the national average is 14.9%. The figures as of July 1997 were 15.9% for Konin Province and 11.2% for Poland. Konin Province has worse figures for unemployment than average.

**Table 4.2-1 BASIC INDICATORS OF KONIN PROVINCE AND POLAND  
IN 1995**

|   | Poland  | Konin  | Konin in Poland |
|---|---------|--------|-----------------|
| (1) Land area (km <sup>2</sup> )                    | 312,685 | 5,139  | 1.64%           |
| (2) Population (1,000)                              | 38,609  | 480    | 1.24%           |
| (3) Population density<br>(person/km <sup>2</sup> ) | 123.5   | 93.3   | 31st *1)        |
| (4) Unemployment (%)                                | 14.9    | 18.1   | 32nd *1)        |
| (5) GDP (million PLN)                               | 288,701 | 3,125  | 1.08%           |
| (6) Per-capita GDP (PLN)                            | 7,478   | 6,513  | 20th *1)        |
| (7) Value added<br>(million PLN)                    | 248,887 | 2,905  | 1.17%           |
| (8) Per-capita value added<br>(PLN)                 | 16,631  | 15,069 | 16th            |

Note: \*1 Ranking of Konin Province in 49 provinces of Poland.

Source: - Gross Domestic Product by Voivodships for 1995, August 1997: Research Center for Economic and Statistical Studies of the Central Statistical Office and the Polish Academy of Sciences, Statistical Office in Katowice.

- Year Book, 1996: Central Statistical Office.
- Central Statistical Office: Year Book of Voivodship, 1996.
- Central Statistical Office: Quarterly Statistics, June 1996.

#### 4.2.2.2 Structure of Economy by Activity

Table 4.2-2 shows composition of the value added and employment by economic activity for the whole nation and Konin Province. Table 4.2-3 compares the value added per person employed between the whole nation and Konin Province. Based on the two tables, the characteristics of the economy of Konin Province are described below.

- (1) The employment is high in the agriculture sector where productivity is low

In Konin Province, the farming population accounts for 41.6% of the total employment (national average: 27.0%) and the value added per person is 91% of the national average. This is one of the most important problems in the economy of the province. The reason for this is that the province has a small proportion of fertile farmland (this means low land productivity) and that with its high unemployment rates (18.1% in 1995), many of the potential jobless live in farming villages. In terms of the value added per person employed, the agriculture sector in both the whole nation and Konin Province is the smallest, that is, around 20% of the average of all sectors, excepting the agriculture sector.

- (2) The mining sector has a large share in value added and high productivity

In Konin Province, the mining sector accounts for 13.3% of the total value added (national average: 4.2%), 3.2 times the national average. It produces a high value added, next only to the manufacturing sector. The value added per person employed in the mining sector is 1.32 times of the national average. The sector boasts the second highest productivity in the province when sector by sector are compared with the national average. The category "O. Other services" has the highest productivity--1.41 times of the national average. In the mining sector of Konin Province, lignite is the most important, followed by rock salt and others.

- (3) The electricity sector has a large share in value added and low productivity

The electricity sector includes gas distribution and water supply. Needless to say, however, in Konin Province which satisfies 11% of the country's electricity demand, electricity generation is the most important part of this

sector. This sector accounts for 8.5% of the province's total value added (national average: 4.9%).

On the other hand, the value added per person employed in this sector is 91% of the national average--the same low productivity as the agriculture sector. It should be noted, however, that the electricity sector is inseparably connected with the mining sector, since the mining sector sells 95% of its lignite to the electricity sector, which depends more than 95% on lignite as a fuel for power generation. In this context, the apparently low productivity may be ascribable in part to the distribution of value added between the two sectors.

(4) The manufacturing sector is delayed in development

In Konin Province, the manufacturing sector accounts for 19.8% of the total value added (national average: 23.4%). The small scale of this share is ascribable to the fact that in the province, the agriculture, mining, and electricity sectors each outweigh the manufacturing sector.

Even so, the fact that the manufacturing sector has been delayed in development cannot be denied, since this sector accounts for only 1.0% of the total value added in the manufacturing sector of the whole country, whereas the province accounts for 1.24%, 1.08%, and 1.17% of Poland's population, GDP, and value added, respectively. Contrarily, the value added per person employed in the manufacturing sector is 1.17 times of the national average. Thus, this sector has a high productivity, next only to the mining sector. This results in the fact that employment for the manufacturing sector is much less than the national average.

(5) The private service sector is the most delayed in development

Here, activity items G through K in Table 4.2-2 are assumed to constitute the private service sector for the purpose of review. As can be seen from Tables 4.2-1 and 4.2-3, the share of items G through K in value added is smaller than the national average (23.5% for Konin, 32.2% for Poland). The value added per person employed too is below the national average except item K. Table 4.2-4 shows the total value added by item of Poland and

Konin, respectively, and the share of each of items G through K in value added of Poland.

It can be seen from the table that the total amount of value added of items G through K of Konin is a mere 0.85% of that of Poland. Since Konin Province accounts for 1.17% of Poland's total value added, it follows that Konin's private service sector is impeding the economic development of Konin. When Konin's share of the value added is calculated excluding items G through K, it increases from the present 1.17% to 1.32%.

**Table 4.2-4 SHARE OF KONIN IN SERVICE SECTORS, 1995**

| Activities<br>(NACE Rev.1)                                     | Value added (million PLN) |       | Konin/Poland<br>(%) |
|--|---------------------------|-------|---------------------|
|  | Poland                    | Konin |                     |
| G. Trade and repair of consumer goods                          | 38,460.5                  | 372.9 | 0.97                |
| H. Hotels and restaurants                                      | 2,483.5                   | 14.2  | 0.57                |
| I. Transport, storage and communication                        | 16,934.3                  | 141.0 | 0.83                |
| J. Financial intermediation                                    | 2,642.1                   | 22.8  | 0.86                |
| K. Operation of real estate and<br>services delivered to firms | 19,442.1                  | 131.8 | 0.68                |
| Total  | 79,962.5                  | 682.7 | 0.85                |
| <u>Share in Poland</u>   |                           |       |                     |
| Land area  |                           |       | 1.64%               |
| Population   |                           |       | 1.24%               |
| GDP  |                           |       | 1.08%               |
| Value added  |                           |       | 1.17%               |

Source: Table 4.2-1, Table 4.2-2, Table 4.2-3.

#### 4.2.2.3 Ranking of Living Standard of Konin in Poland

Table 4.2-5 shows the ranking of Konin's living standard estimated using 1994 data. The organization indicated as the information source investigated living standards in the 49 provinces. The ranking shown in the table is based on calculations performed by the Team.

In terms of living standard, Konin ranks 22nd among the 49 provinces. Taking this and the ranking shown in Table 4.2-1 into account, the position of Konin Province in Poland may be considered slightly above the average as a whole.



From Table 4.2-5, the good points of Konin Province are high levels of personal income (the three key industries, especially mining, offer generous wages), good security, an established financial system, high levels of personal consumption, and good health condition. By contrast, the natural environment, infrastructure, unemployment/social welfare, and housing are inferior in that order.

**Table 4.2-5 RANKING OF LIVING STANDARD OF KONIN PROVINCE IN POLAND, 1994**

| Particular                             | Points <sup>1</sup> | Ranking <sup>2</sup> |
|--|---------------------|----------------------|
| 1. Natural environment                 | 82.4                | 43                   |
| 2. Unemployment and social help        | 42.0                | 38                   |
| 3. Public security                     | 91.5                | 9                    |
| 4. Expenditure from the gmina's budget | 21.1                | 25                   |
| 5. Individual income                   | 39.2                | 6                    |
| 6. Financial support                   | 46.9                | 13                   |
| 7. Individual consumption              | 41.5                | 17                   |
| 8. Apartment and housing conditions    | 39.8                | 33                   |
| 9. Technical infrastructure            | 13.1                | 41                   |
| 10. Culture and education              | 49.5                | 30                   |
| 11. Health care                        | 45.9                | 19                   |
| 12. Demography                         | 39.0                | 31                   |
| As a total                             | 46.0                | 22                   |
| Poland                                 | (51.1)              |                      |

Note: \*1 full mark=100

\*2 Ranking of Konin Province in 49 provinces

Source: Polish Regional Planning Bureau in Lodz: Regional Living Standard and its changes, 1996.

### 4.2.3 Advantages and Disadvantages for Development of Konin Province

Five advantages and disadvantages are enumerated below for development of Konin Province, summarizing those potentials and constraints identified in each economic sector. They are comparatively superior or inferior to averages of the country or other provinces in general.

It should be noticed that the problem of exhausting of the brown coal deposits, expected in the 2030's or 2040's, is not dealt with as a constraint because the target year of the master plan is set at the year 2010.

#### Advantages - Comparative potentials for the province

- 1) There are three key industries based on brown coal providing the area with its industrial base. If these industries did not exist in the region, no ancillary and supporting industries would exist either. The key industries also can supply raw materials, intermediates, energy and utilities for future diversification of the industries in the province.
  
- 2) The area is located in a strategic point in terms of land transportation within the country. This advantage suggest the possibility that the area will become a center of distribution and transportation as well as a strategic point for potential investors.
  
- 3) There is ample land, enough for integrated regional development. It is a major attractive condition for new investment projects and regional development programs to be able to obtain project sites at suitable locations with competitive prices.
  
- 4) The area can supply a competitive labor force for new industries. The high unemployment rate sometimes means that potential investors will be able to employ quality laborers at reasonable costs.
  
- 5) There are under utilized resources in the area, such as minerals, tourism, wastes and by-products from the key industries, etc. Utilization of these resources has been preliminarily studied but mostly abandoned by companies concerned. However, there should be potential for their utilization.

#### Disadvantages - Comparative constraints for the province

- 1) Size of economy and market of the province is rather small to implement a Large-scale development. Therefore, most new projects must aim at markets of outside of Konin Province .
  
- 2) In view of economic geography, there are more attractive locations for investment and doing business near and outside the province, e.g., Poznan and Lodz.

3) Arable land is less fertile than the average of the country. Therefore, agriculture can hardly be an engine for economic development of the area.

4) Infrastructure in the area is not well prepared yet, being ranked at 41st of 49 provinces in the living standard study report. Insufficient infrastructure not only means lower living standards for inhabitants but also will obstruct further development or investment in the area.

5) The image of Konin Province is not necessarily favorable throughout the country mainly because of environmental issues; this is hampering investment from outside the area.

Table 4.2-2 VALUE ADDED AND EMPLOYMENT IN KONIN AND POLAND, 1995

| Activities *1<br>(NACE Rev.-1) | Gross Value Added By Sector<br>(Million PLN) |         | Employment By Sector<br>(1000 persons) |        |
|--------------------------------|--|---------|--|--------|
|                                | Poland                                       | Konin   | Poland                                 | Konin  |
| A+B. Agriculture ---           | 18,742                                       | 337.4   | 4,046                                  | 80.3   |
| C. Mining ---                  | 10,571                                       | 386.2   | 357                                    | 9.9    |
| D. Manufacturing               | 58,173                                       | 574.8   | 3102                                   | 26.3   |
| E. Electricity ---             | 12,073                                       | 245.9   | 269                                    | 6.0    |
| F. Construction                | 16,264                                       | 163.1   | 827                                    | 8.3    |
| G. Trade ---                   | 38,461                                       | 372.9   | 1903                                   | 21.4   |
| H. Hotels ---                  | 2,484  | 14.2    | 186                                    | 1.7    |
| I. Transport---                | 16,934                                       | 141.0   | 838                                    | 8.4    |
| J. Financial ---               | 2,642  | 22.8    | 268                                    | 2.5    |
| K. Operation ---               | 19,442                                       | 131.8   | 554                                    | 3.3    |
| L. Public ---                  | 14,642                                       | 151.5   | 381                                    | 3.9    |
| M. Education                   | 10,507                                       | 81.2    | 896                                    | 9.2    |
| N. Health ---                  | 10,430                                       | 98.3    | 1003                                   | 9.1    |
| O. Other services ---          | 17,523                                       | 184.2   | 335                                    | 2.5    |
| Total                          | 248,887                                      | 2,905.3 | 14,965                                 | 192.8  |
|                                | 100.0%                                       | 100.0%  | 100.0%                                 | 100.0% |

Note:\*1) A-Agriculture, hunting, forestry B-Fishing C-Mining and quarrying D-Manufacturing E-Electricity, gas distribution, water supply F-Construction G-Trade and repair of consumer goods H-Hotels and restaurants I-Transport, storage and communication J-Financial intermediation K-Operation of real estate and services delivered to firms L-Public administration and defense M-Education, N-Health care and social security O-Other services, public utilities, social and individual services

\*2) "Employment" includes regular works, part-time workers, business owners, and family-business workers.

Source: Research Center for Economic and Statistical Studies of the Central Statistical Office and the Polish Academy of Sciences, Statistical Office in Katowice: Gross Domestic Product by Voivodships for 1995, August 1997

**Table 4.2-3 VALUE ADDED AND EMPLOYMENT IN  
KONIN AND POLAND, 1995**

(Unit: PLN/employment)

| Activities*1    | Value added/employment*2 |               | Konin/Poland<br>(ratio) |
|-----------------|--------------------------|---------------|-------------------------|
|                 | Poland                   | Konin         |                         |
| A+B Agriculture | 4,632                    | 4,202         | 0.91                    |
| C Mining        | 29,611                   | 39,010        | 1.32                    |
| D Manufacturing | 18,753                   | 21,856        | 1.17                    |
| E Electricity   | 44,882                   | 40,983        | 0.91                    |
| F Construction  | 19,666                   | 19,650        | 1.00                    |
| G Trade         | 20,210                   | 17,425        | 0.86                    |
| H Hotels        | 13,352                   | 8,353         | 0.63                    |
| I Transport     | 20,208                   | 16,786        | 0.83                    |
| J Financial     | 9,859                    | 9,120         | 0.93                    |
| K Operation     | 35,094                   | 39,939        | 1.14                    |
| L Public        | 38,430                   | 38,846        | 1.01                    |
| M Education     | 11,640                   | 8,826         | 0.76                    |
| N Health        | 10,398                   | 10,802        | 1.04                    |
| O Other         | 52,308                   | 73,680        | 1.41                    |
| <b>Total</b>    | <b>16,631</b>            | <b>15,069</b> | <b>0.91</b>             |

Note:\*1 A-Agriculture, hunting, forestry, B-Fishing, C-Mining and quarrying, D-Manufacturing, E-Electricity, gas distribution, water supply, F-Construction, G-Trade and repair of consumer goods, H-Hotels and restaurants, I-Transport, storage and communication, J-Financial intermediation, K-Operation of real estate and services delivered to firms, L-Public administration and defense, M-Education, N-Health care and social security, O-Other services, public utilities, social and individual services

\*2 "Employment" includes regular workers, part-time workers, business owners, and family-business owners.

Source: Research Center for Economic and Statistical Studies of the Central Statistical Office and the Polish Academy of Sciences, Statistical Office in Katowice: Gross Domestic Product by Voivodships for 1995, August 1997.



### 4.3 Direction of Development of Konin Province

This section attempts to simulate a configuration of Konin Province in 2010 in view of its expected social and economic structure. The simulation will provide a base for the framework for a master plan of regional development in Konin Province.

#### 4.3.1 Economic Structure of Konin Province In 2010

Six economic sectors are used for projection in this section, which are made by re-classifying fifteen economic activities defined in a European classification, NACE Revision-1, for convenience of discussion, and projections of Konin's economy as shown in Table 4.3-1.

**Table 4.3.1 SIX ECONOMIC SECTORS AND NACE CLASSIFICATION**

| Six economic sectors:   | NACE Revision-1 classification:   |
|-------------------------|---|
| 1. Agriculture          | A. Agriculture, hunting, forestry<br>B. Fishing   |
| 2. Mining & Electricity | C. Mining and quarrying<br>E. Electricity, gas distribution, water supply   |
| 3. Manufacturing        | D. Manufacturing  |
| 4. Construction         | F. Construction   |
| 5. Private services     | G. Trade and repair of consumer goods<br>H. Hotels and restaurants<br>I. Transport, storage and communication<br>J. Financial intermediaries<br>K. Operation of real estate and services delivered to firms |
| 6. Social services      | L. Public administration<br>M. Education<br>N. Health care and social security<br>O. Other services, public utilities, social and individual services   |

#### (1) GDP and VA growth rates

Table 4.3-2 shows a projection of the economic structure of Konin Province in 2010 in terms of value added (VA) by six economic sectors. The projection is based on figures for 1995 which are as also shown in the table. Since VA is only available for each economic activity of Konin Province,

analysis is made by VA. First GDP growth rate were projected to 2010, and then the projected GDP growth rate was directly applied to VA growth rate.

The former Central Planning Office and "Package 2000" estimated a standard GDP growth rate up to 2000 at 5.7% and 5.4% respectively. No official estimates until 2010 are available at this moment. Therefore this study has assumed that the economy of the annual GDP of the country would grow by 5.5% until 2010, in real terms. On the other hand, the economy of Konin Province should grow faster than that of the whole country or the national average, otherwise the province will remain at the present position or lower in the nation's economy. In this regard, the Team has assumed 6.0% as the regional GDP growth rate for Konin Province, in real terms, until 2010. It will be a target for development of the region.

Thus, the total VA in the province will increase to 6,963 million PLN in 2010 from 2,905 million PLN of 1995 or 2.4 times of that for 1995 as shown in Table 4.3-2. Konin's share of VA in the whole nation will increase from 1.17% in 1995 to 1.25% in 2010.

The following are projections of economic growth of each economic sector in Konin Province up to 2010 in terms of VA.

## (2) Agriculture

Arable land area in Konin Province is supposed to gradually decrease by afforestation of low-yield farmland and abandoned farmland due to less income and/or retirement of farmers. Therefore, total VA in the agricultural sector will hardly increase in the future though productivity per hectare and per farmer shall be improved. As a result, the Team has assumed that the amount of VA of agriculture would remain at the same level or slightly increase toward 2010. Table 4.3-2 shows a projection that the agricultural sector will decrease in terms of its share in the total VA from 11.6% for 1995 and 5.9% for 2010, or by half during 15 years. However, the amount of VA of the sector shall slightly grow, with improvement of productivity of 1.3% p.a.



(3) Mining and electricity

The electricity industry in Konin Province will be obliged to mostly depend on brown coal even in the future or up to 2010; that is an observation of the Team. And the brown coal mines in Konin Province will be able to keep the same level of production as present at least until 2010. It is not expected, however, that production volume of brown coal will increase, and neither will the electricity sector grow.

The two industries have been projected to have that an amount of VA that will remain constant at the level of 1995 until 2010. Table 4.3-2 shows that the sector will reduce its share of VA from 21.8% in 1995 to 9.1% in 2010.

(4) Manufacturing

For the manufacturing sector, the Team has first set its share of VA as 27% for 2010 as a target figure. In order to attain the target growth of 6.0%, the manufacturing sector must be a driving force of the economy of Konin Province, compensating for the declining share of the agriculture and the mining and electricity sectors. The rate of 27% is regarded as a level of an industrialized country or areas instead of 19.8% for Konin Province in 1995. The sector has to grow at the rate of 8.2% per annum or 3.27 times of VA in 1995 as indicated in Table 4.3-2.

(5) Construction

The Team has first assumed a growth rate of 8.5% p.a. for the construction sector giving the same level of growth as manufacturing and private services sectors, that are 8.2% and 8.4% respectively. The share of VA will reach 8.0% in 2010 from 5.6% in 1995 that was the lowest among the six sectors as seen in Table 4.3-2. Construction and betterment of roads and other infrastructure in the region shall contribute to the growth of the sector, as will an expected boom of housing construction.

(6) Private services

This sector could not effectively grow during the era of centralized or controlled economy in most of areas of Poland including Konin Province.

The VA shares were 32.3% for Poland and 23.5% for Konin in 1995. A share of 33.0% was given to the private services sector in Konin Province with the idea that by 2010 it would reach a similar level to that of the national average of 1995. This sector shall be an engine for economic development of Konin Province together with the manufacturing sector.

(7) Social services

In general, the EU has the policy of minimizing the roles of central governments and transferring power to local governments. Poland will follow the policy from a pre-accession period for joining the EU. This means that supply of social services by local governments, like Konin Province, will increase accompanying an increase in public expenditure in the future. In Poland, however, some of the roles and activities of government are to be (or have already been) privatized so that social services in the province might not remarkably increase in the future. The Team has assumed that the sector in Konin Province will slightly decrease in terms of the share of VA in the total economy from 17.7% in 1995 to 17.0% in 2010, reflecting a growth rate of 5.7%.

#### 4.3.2 Employment and Unemployment in 2010

##### 4.3.2.1 Overall Projection in 2010

The Team has forecast employment, unemployment and additional job requirements in Konin Province until 2010; results are shown in Table 4.3-3. Total population and working age population of (the latter 18 to 64 years for males and 18 to 59 for females), were projected by the Central Statistical Office until 2020. The assumptions and results of forecast are summarized below.

(1) Job requirements

The entire working age population does not necessarily look for jobs. Some of housekeepers, early retirees, weak or handicapped people, etc. must be removed from job requirement, figures. The rates of actual job requirements against working age population were 82.2% in 1997 (the lowest), and 85.6% in 1995 (the highest). The average rate for these five

years was 83.8%. The Team assumed a rate of job requirement to working age population of 85% for 1998 to 2010.

(2) Unemployment rate

Poland has rapidly brought down the unemployment rate from 16.4% for 1993 to 11.2% for July, 1997, and it is supposed to be lower than 10% in 1998. The annual rate of decline unemployment is estimated at 9.1% during these five years. In the same period of time, Konin Province too has experienced a decline in its unemployment rate, that fell 5.0% p.a. from 19.5% in 1993 to 15.9% in July, 1997. Both the unemployment rate and the rate of its decline in the province have been worse than those for the nation as a whole. If Konin Province in the unemployment rate decreases by 5.0% p.a. against the previous year as the past, it will reach 8.2% in 2010. However, this figure seems to be too high as a target for 2010 considering that the national average is about to break below 10% in 1998.

Thus, the Team set 5.0% of unemployment rate for 2010 as a target of Konin Province .

(3) Additional job requirements up to 2010

Using the above assumptions, additional job requirements were estimated as shown in Table 4.3-3. The table shows that the province shall create 49,900 jobs from 1998 to 2010 or in a period of 13 years, that is, 3,840 jobs in terms of an annual average.

**4.3.2.2 Changes in Employment Structure and Productivity by Sector**

This section estimates the structure of employment using data for six sectors and referring to sections of 4.3.1 and 4.3.2.1. Also, VA per employment is examined. The projection resulted in the following key figures, namely that VA in 2010 would be 2.4 times that of 1995 as a result of a 6.0% growth rate, the number of employees would be 1.26 times greater and VA per employee would increase by 1.90 times. Employment in the six sectors will be estimated so as to meet the following key values. Table 4.3-5 shall also be referred to for the following description.

**Table 4.3-4 SUMMARY OF KEY VALUES**

|                            | Growth rate = 6.0% p.a. |         | Unemployment = 5.0% in 2010 |  |
|----------------------------|-------------------------|---------|-----------------------------|--|
|                            | 1995                    | 2010    | 2010/1995<br>(times)        |  |
| Value added (Million PLN)  | 2,905.3                 | 6,962.7 | 2.40                        |  |
| Employment (1,000 persons) | 192.8                   | 243.3   | 1.26                        |  |
| VA per employee ( PLN )    | 15,069                  | 28,618  | 1.90                        |  |

**(1) Agriculture**

The Team assumed that the employment in the agricultural sector would decrease from 41.6% of the total employees in 1995 to 27% by 2010, which is the level of the nation's average in 1995. Thus, the other sectors shall absorb 14,600 employees from the agriculture sector from 1995 to 2010, and improve productivity per employee by 1.49 times of the level of 1995.

**(2) Mining and electricity**

The mining and electricity sector has its own projection or plan for the scale of future employment so that the figure was used as it is. It expects a reduction of around 4,400 employees mainly by attribution, by 2010. As a result, productivity per employee is expected to be 1.38 times that of the 1995 level.

**(3) Manufacturing, construction and private services**

The same assumption was applied to these three sectors, namely that VA per employee, or productivity, should be as high as 1.74 times the 1995 level since these sectors are to be driving forces of the economy in the province toward 2010. Otherwise the target growth rate of 6.0% and the unemployment rate of 5.0% in 2010 will not be achieved. The number of employees of these sectors in 2010 were computed backward from the required productivity or VA per employee. It is also expected that three sectors will create a large number of job opportunities, namely 23,100 jobs in manufacturing, 8,000 jobs in construction and 34,800 jobs in private services by 2010.

(4) Social services

Employment in the public sector shall be restructured through attribution toward 2010, improving its productivity. The highest rate of growth of productivity was given to this sector, that is 2.0 times the 1995 level by 2010. The sector will create 3,700 jobs in the coming 13 years or up to 2010.

#### **4.3.3 Requirements for the Target, Until 2010**

In this study, the development target of Konin Province is set at 6.0% as the annual average GRDP growth, and reduction of unemployment is to proceed as 5.0% p.a. up to the year 2010. In order to achieve this target, the following requirements have to be satisfied.

(1) Productivity improvement and job creation

By the year 2010, productivity of the economic sectors in Konin Province needs to be increased by 1.9 times the productivity level in 1995. This can be achieved by the shift of working population from agriculture to the other sectors, and actual productivity improvement in each economic sector, or a combination of these two changes. In order to realize a shift of the working population, creation of job opportunities in the industrial sector as well as the private service sector is imperative. New jobs are required for as many as 49,000 by 2010, or 3,840 per year. Job creation is also connected to the next requirement, investment increase, directly and indirectly.

(2) Investment required for Konin Province

To achieve the target growth rate of 6% per annum for Konin Province, new investment is required by both public and private sectors. The following is an estimation of investment requirements for the growth using the concept of Incremental Capital Output Ratio (ICOR), that is an analysis of correlation between incremental GDP and investment outlay.

By definition, ICOR is the ratio between the amount of investment outlays (I) and the amount of GDP increase ( $\Delta$ GDP).

$$\text{ICOR} = \frac{\text{Investment outlays}}{\text{Increase in GDP}} = \frac{I}{\Delta \text{GDP}}$$

Required investment outlays in Year (t) for the target GDP growth in Year (t+1) are expressed as below.

$$I^t = \text{ICOR} \times \Delta \text{GDP}^{t+1}$$

In other words, ICOR is an indicator which shows the effectiveness of invested capital in the country or an economic area. The smaller the ICOR, the better the investment efficiency. The data of GUS are used for the past investment outlays of Poland and Konin Province. Table 4.3-6 shows an estimation of a past trend of ICOR for the country and Konin Province on the following assumptions.

Assumptions:

Konin's share of GDP and investment outlay against the country are assumed for the past using statistical data for 1995 because actual performance data for Konin Province was available only for the year 1995.

- GDP, Poland 1995: 288,701 Million PLN
- GRDP, Konin 1995: 3,125 Million PLN (1.08%)
- Investment, Poland 1995: 47,145 Million PLN
- Investment, Konin 1995: 487 Million PLN (1.03%)

**Table 4.3-6 ESTIMATED ICOR ON THE PAST TREND, 1990-1995**

|                                      | (1990 prices, Million PLN) |        |        |        |        |                 |
|--------------------------------------|----------------------------|--------|--------|--------|--------|-----------------|
|                                      | 1990                       | 1991   | 1992   | 1993   | 1994   | 1995            |
| <b>POLAND</b>                        |                            |        |        |        |        |                 |
| GDP                                  | 58,027                     | 52,105 | 53,450 | 55,457 | 58,380 | 62,470          |
| Investment outlays                   | 11,581                     | 10,874 | 9,375  | 8,803  | 9,399  | 10,201          |
| ICOR                                 | -2.95                      | 8.09   | 4.65   | 3.02   | 2.30   | (Estimate) 2.72 |
| <b>KONIN</b>                         |                            |        |        |        |        |                 |
| GRDP (1.08% of Poland)               | 606                        | 563    | 577    | 599    | 631    | 675             |
| Investment outlays (1.03% of Poland) | 120                        | 112    | 97     | 91     | 97     | 105             |
| ICOR                                 | -2.82                      | 7.73   | 4.44   | 2.89   | 2.20   | (Estimate) 2.60 |

Source: GUS, Mały Rocznik Statystyczny 1995 and 1997.  
 GUS, Rocznik Statystyczny Województwa Konńskiego 1997.  
 Research Center for Economic and Statistical Studies of the Central Statistical Office and the Polish Academy of Sciences,  
 Statistical Office in Katowice, Gross Domestic Product by Voivodships for 1995, August 1997.

During the 1992-95 period, estimated past ICOR for Konin Province are always slightly lower than that of Poland. One of the possible explanations for the lower ICOR of Konin Province is that economic entities in Konin Province have been utilizing old and already depreciated facilities and equipment which help making up superficially favorable statistical figures for their economic activities. Composition of the economic sectors in Konin Province also affects the ratio.

#### Assumption of ICOR for Konin Province: 1996-2010: 3.06

It is difficult to project future ICOR of Konin Province. The province's ICOR will be affected by the kinds or types of future investment. Therefore, the team based on Poland's ICOR for the estimation of Konin Province's ICOR during the planning period, because there are regions with vigorous investment in Poland and Poland's ICOR includes the results of such investment.

Method of projection for Konin Province's ICOR during the planning period is as follows:

- Output period is the three year period from 1993 to 1995.
- Input period is 1992, 1993 and 1994.
- Increase in GDP during the 1993-95 period in 1990 prices is: 62470-53450 = 9020 (PLN)

- Cumulative investment during the 1992-94 period is:  $9375+8803+9399 = 27577(\text{PLN})$
- ICOR during the 1992-1994 period is:  $27577 / 9020 = 3.06$

Table 4.3-7 gives a projected investment outlay until 2010 required for achieving 6% annual growth in Konin Province applying the above assumptions on ICOR.

**Table 4.3-7 PROJECTION OF INVESTMENT REQUIRED FOR KONIN PROVINCE, 1995-2010**

|   | 1995/2000 | 2000/2005 | 2005/2010   |
|---|-----------|-----------|-------------|
| Projected GRDP                                  | 675/903   | 903/1,208 | 1,208/1.617 |
| GRDP increase                                   | 228       | 305       | 409         |
| ICOR  | 3.06      | 3.06      | 3.06        |
| Investment outlays required during 5 years      | 680       | 934       | 1,250       |
| Average annual investment outlays (1990 prices) | 136       | 187       | 250         |
| Average annual investment outlays (1995 prices) | 628       | 864       | 1,156       |

During the 1995-2000 period, 628 million PLN p.a. of investment outlays in 1995 prices are required. For the next 5 years, 2000-2005, 864 million PLN p.a. is required, also in 1995 prices, and another 1,156 million PLN p.a. is needed during the 2005-2010 period. The ratio of required investment outlays to projected GRDP in 1998 is 18.4%. The ratio remains at the same level until 2010.

According to analysis in Chapter 2 in this report, public investment was estimated in amount of 132.8 million PLN for the 1997 budget. On the other hand, the above investment requirement for 1997 is 642 million PLN in 1995 prices, which is escalated to some 889.1 million PLN in 1997 prices. Public investment was supposed to have provided 14.8% of investment required for 1997.



#### 4.3.4 Development Frame toward the year 2010

A master plan for regional development in Konin Province will be formulated in line with the following framework or goal toward 2010. The framework will be described below separately on Social and Economic Frame, and Spatial frame.

##### 4.3.4.1 Social and Economic Frame

###### (1) Economic framework

The Team has projected social and economic conditions of Konin Province toward 2010 in the previous section 4.3.1 and 4.3.2. A comparison between 1995 and 2010 will indicate the problems in the economic structure and employment situation of the province.

**Table 4.3-8 Change in Economic Structure Between 1995 and 2010**

| Economic sector         | Value added (%) |       | Employment (%) |       |
|-------------------------|-----------------|-------|----------------|-------|
|                         | 1995            | 2010  | 1995           | 2010  |
| 1. Agriculture          | 11.6            | 5.9   | 41.6           | 27.0  |
| 2. Mining & Electricity | 21.8            | 9.1   | 8.2            | 4.7   |
| 3. Manufacturing        | 19.8            | 27.0  | 13.6           | 20.3  |
| 4. Construction         | 5.6             | 8.0   | 4.3            | 6.7   |
| 5. Private services     | 23.5            | 33.0  | 19.3           | 29.6  |
| 6. Social services      | 17.7            | 17.0  | 12.8           | 11.7  |
| Total                   | 100.0           | 100.0 | 100.0          | 100.0 |

(Note) Regional GDP growth rate = 6.0% p.a., unemployment rate = 5.0% in 2010

(Source) Table 4.3-2, Table 4.3-3

The above table clearly suggests that Konin Province has to improve the present economic structure, that is, reduce dependence on the agriculture sector for employment, and on the mining and electricity sectors for output. Otherwise the economy of Konin will become much weaker than it is today. The above observation is based on the fact that the two currently leading sectors can not grow but are expected to stagnate in the future economy of Konin Province. Manufacturing and the private services sectors have to take the place now occupied by the agriculture and mining and electricity sectors.

(2) Social framework

The other aspects of the regional development will be from a social point of view, that is whether inhabitants of the region can enjoy a comfortable and high quality of life. With reference to Table 4.2-5 on the living standard of Konin Province, the worst three particulars in living standards for Konin Province are extracted below:

|               | <u>Particulars</u>           | <u>Ranking in 49 provinces</u> |
|---------------|------------------------------|--------------------------------|
| Worst:        | Natural environment          | 43                             |
| Second Worst: | Technical infrastructure     | 41                             |
| Third Worst:  | Unemployment and social help | 38                             |

The environmental problem has been one of the most serious issues in Konin Province, the so-called “brown coal town with pollution.” Lakes have been polluted by effluent of industries and tourism facilities and warmed up by discharge of cooling water from power plants. Rivers have been polluted by waste water from industries, agriculture and households, extraction of underground water from brown coal open-pits has had some negative effects on agriculture, while agriculture too is one of the polluters of lakes and rivers. Harmful gases from power plants have been gradually reduced but nevertheless have been accumulated in soils, water and probably in plants. These problems ranked Konin Province 43rd from the best or 7th from the worst in the 49 provinces in the country.

Technical infrastructure includes city water supply, sewage, city gas supply, roads and bridges, telecommunication, waste treatment facilities, irrigation and so on. The province clearly lacks technical infrastructure, ranking 41st, specifically in rural areas as pointed out in Chapter 6 of the Sector Report.

The problem of a high unemployment rate in Konin Province has been discussed in many parts of this report. The problem in this province ranks 38th in the country. Needless to say, it is one of the most serious problems for the province. Contrarily, if the unemployment rate continues as high as present in the future, the economy can not achieve the targets projected in the previous sections.

Through the above discussions, the change in economic structure will directly impact the economic framework of the Study, the environmental issues and the infrastructure problems will mainly concern social framework, and the problem of unemployment will probably concern both economic and social frameworks.

(Note) The problems of infrastructure are dealt with as a strategy of the "Land use and infrastructure" sector in the Sector Report. The development frame is to be placed above all the sectors as an overall goal of all the sectors .

(3) Social and economic framework for the master plan

Thus, the framework for social and economic aspects can be summarized as follows:

- 1) Improvement of economic structure
- 2) Decrease of unemployment
- 3) Conservation of environment

**4.3.4.2 Spatial Frame**

In order to conceive a spatial framework for regional development in Konin Province, there may be two points of view: one is a wider spatial framework including outside of Konin Province, while the other is a development framework inside the province.

(1) Wider spatial framework

There are three big cities in the area surrounding Konin Province, at a distance some 100Km from the center of the province or Konin City: they are Poznan, Lodz and Bydgoszcz. Other big cities like Warsaw, Katowice, Krakow, Gdansk, etc. cannot be considered as an economic zone of Konin Province because of their distance. The Team will describe its observations about economic relations between Konin and each of three cities based on the local surveys since statistics are not available for in- and out-flow of goods people.

In regard to transportation both of roads and railroads are the best to Poznan, intermediate to Lodz and the worst to Bydgoszcz. The south-east part of Konin Province has some economic relations with Lodz. Especially

noteworthy is that some towns bordering on Lodz Province have economic relations with Lodz City to some extent. Flow of goods and people between Bydgoszcz and Konin Province has not been active since long ago mainly because of an insufficient transportation system and partly because of a lack of historical linkage between the cities.

It takes more or less 75 minutes between the city of Konin and the city of Poznan by express trains, or by the highway. It seems, however, that flow of goods and people are one-sided, from Konin to Poznan, and that neither Konin Province nor the Konin City have not been integrated yet in the economic zone of Poznan. However, there will be high potential in the future because there historically has been a close relation between Konin and Poznan in addition to these being an advantage in transportation. Konin province was a part of Poznan Prefecture in the era of 17 prefectures in Poland or until 1975. There will be a possibility that the two provinces will join in the same administrative unit in the future. In addition, Poznan is the most active city among those three cities. Therefore, the development axis from a wider point of view shall be directed to Poznan.

(2) Spatial framework within the province

There are four major cities in Konin Province, i.e., Konin City (population 83,160 as of June 1996), Kolo City (24,015), Slupca City (14,896) and Turek City (30,717). Three cities are located from 20Km to 25Km from Konin City, the center of Konin Province . The cities except Turek are located along the National Road No. 2. These cities are industrialized to a certain level in Konin Province, each having its own market in the vicinity. It is observed that industrial linkage and movement of goods and persons are not vigorous so that the economy cannot become dynamic nor spread to other small towns in Konin Province.

(3) Spatial framework for the master plan

From above discussion, the following spatial framework are set for the Study:

- 1) Emphasis of development axis toward Poznan
- 2) Strengthening of internal linkages within the province

**Table 4.3-2 PROJECTED VALUE-ADDED BY ECONOMIC SECTOR IN KONIN PROVINCE UP TO 2010**

( Unit : Million PLN )

| Economic sector *2)     | 1995           |               | 2010*1)        |               | 2010/1995                 |                       |
|-------------------------|----------------|---------------|----------------|---------------|---------------------------|-----------------------|
|                         | Value-added    | Share         | Value-added    | Share         | Growth ratio<br>1995/2010 | Annual growth<br>rate |
| 1. Agriculture          | 337.4          | 11.6%         | 410.8          | 5.9%          | 1.22                      | 1.3%                  |
| 2. Mining & Electricity | 632.1          | 21.8%         | 632.1          | 9.1%          | 1.00                      | 0.0%                  |
| 3. Manufacturing        | 574.8          | 19.8%         | 1879.9         | 27.0%         | 3.27                      | 8.2%                  |
| 4. Construction         | 163.1          | 5.6%          | 557.0          | 8.0%          | 3.42                      | 8.5%                  |
| 5. Private services     | 682.7          | 23.5%         | 2297.7         | 33.0%         | 3.37                      | 8.4%                  |
| 6. Social services      | 515.2          | 17.7%         | 1183.7         | 17.0%         | 2.30                      | 5.7%                  |
| <b>Total</b>            | <b>2,905.3</b> | <b>100.0%</b> | <b>6,962.7</b> | <b>100.0%</b> | <b>2.40</b>               | <b>6.0%</b>           |
| Poland                  | 248.887        |               | 555.633        |               | 2.23                      | 5.5%                  |
| Konin's share to Poland | 1.17%          |               | 1.25%          |               |                           |                       |

( Note ) \*1) JICA Team's projection

\*2) 1. Agriculture (A+B of NACE Rev.1)

5. Private services (G+H+I+J+K)

2. Mining & Electricity (C+E)

6. Social services (L+M+N+O)

3. Manufacturing (D)

4. Construction (F)

(Source) Table 4.2-2 for 1995.

Table 4.3-3 PROJECTED EMPLOYMENT AND UNEMPLOYMENT IN KONIN PROVINCE UP TO 2010

| Particulars<br>( Unit )                                  | Past Records |       |       |       |          |       |       | Projection *2) |       |       |  |
|--|--------------|-------|-------|-------|----------|-------|-------|----------------|-------|-------|--|
|  | 1993         | 1994  | 1995  | 1996  | 1997     | 1998  | 1999  | 2000           | 2005  | 2010  |  |
| 1. Total population<br>(1000)                            | 477.2        | 478.8 | 479.7 | 480.3 | 481.2    | 482.3 | 483.7 | 485.3          | 495.5 | 505.7 |  |
| 2. Working ages *1)<br>(1000)                            | 269.6        | 272.8 | 275.1 | 277.3 | 279.6    | 282.1 | 284.3 | 287.2          | 299.6 | 301.3 |  |
| 3. Job requirement<br>(1000)                             | 223.2        | 228.9 | 235.4 | 234.5 | 230.0    | 239.8 | 241.7 | 244.1          | 254.7 | 256.1 |  |
| 4. Employment<br>(1000)                                  | 179.7        | 183.6 | 192.8 | 193.0 | 193.4    | 204.9 | 209.5 | 214.4          | 234.8 | 243.3 |  |
| 5. Unemployment<br>( 3-4 )<br>(1000)                     | 43.5         | 45.3  | 42.6  | 41.5  | 36.6     | 34.9  | 32.2  | 29.7           | 19.9  | 12.8  |  |
| 6. Job requirement rate<br>( 100 X ( 3/2 ) )<br>(%)      | 82.8%        | 83.9% | 85.6% | 84.6% | 82.2%    | 85.0% | 85.0% | 85.0%          | 85.0% | 85.0% |  |
| 7. Unemployment rate<br>( 100 X ( 5/3 ) )<br>(%)         | 19.5%        | 19.8% | 18.1% | 17.7% | 15.9%*3) | 14.5% | 13.3% | 12.2%          | 7.8%  | 5.0%  |  |
| 8. Additional job requirements<br>for the year<br>(1000) | 3.9          | 3.9   | 9.1   | 0.2   | 0.4      | 11.5  | 4.6   | 4.9            | 20.4  | 8.5   |  |
| 9. Accumulated additional<br>job requirements<br>(1000)  | 3.9          | 3.9   | 13.1  | 13.3  | 13.7     | 11.5  | 16.1  | 21.0           | 41.4  | 49.9  |  |
| Unemployment rate, Poland<br>(%)                         | 16.4%        | 16.0% | 14.9% | 13.2% | 11.2%*3) |       |       |                |       |       |  |

(Notes) \*1) 18 to 64 years old for male and 18 to 59 for female

\*2) JICA Team's projection

\*3) As of July, 1997

(Source) Central Statistical Office: Population Projection of Poland by Voivodship 1996-2020, 1997  
Central Statistical Office: Registered Unemployment in Poland I-IV Quarter 1996, 1997

**Table 4.3-5 PROJECTED EMPLOYMENT AND PER EMPLOYEE VALUE-ADDED BY ECONOMIC SECTOR  
IN KONIN PROVINCE UP TO 2010**

| Economic sector *2)                  | 1995                         |                    |                               | 2010 *1)                     |                    |                               | 2010/1995                                |                              |
|--------------------------------------|------------------------------|--------------------|-------------------------------|------------------------------|--------------------|-------------------------------|--|------------------------------|
|                                      | Employment<br>(1000 persons) | Composition<br>(%) | Per capita*3)<br>(PLN/person) | Employment<br>(1000 persons) | Composition<br>(%) | Per capita*3)<br>(PLN/person) | Employment<br>(2010-1995)<br>(2010-1995) | Per capita*3)<br>(2010/1995) |
| 1. Agriculture                       | 80.3                         | 41.6%              | 4,202                         | 65.7                         | 27.0%              | 6,254                         | -14.6                                    | 1.49                         |
| 2. Mining & Electricity              | 15.9                         | 8.2%               | 39,755                        | 11.5                         | 4.7%               | 54,965                        | -4.4                                     | 1.38                         |
| 3. Manufacturing                     | 26.3                         | 13.6%              | 21,856                        | 49.4                         | 20.3%              | 38,067                        | 23.1                                     | 1.74                         |
| 4. Construction                      | 8.3                          | 4.3%               | 19,651                        | 16.3                         | 6.7%               | 34,226                        | 8.0                                      | 1.74                         |
| 5. Private services                  | 37.3                         | 19.3%              | 18,303                        | 72.1                         | 29.6%              | 31,879                        | 34.8                                     | 1.74                         |
| 6. Social services                   | 24.7                         | 12.8%              | 20,858                        | 28.4                         | 11.7%              | 41,717                        | 3.7                                      | 2.00                         |
| Total/Average<br>(Unemployment rate) | 192.8<br>(15.9%)             | 100.0%             | 15,069                        | 243.5<br>(5.0%)              | 100.0%             | 28,618                        | 50.5                                     | 1.90                         |

(Note) \*1) JICA Team's projection

\*2) 1. Agriculture (A+B) of NACE Rev.1

2. Mining & Electricity (C+E)

3. Manufacturing (D)

4. Construction (F)

5. Private services (G+H+I+J+K)

6. Public services (L+M+N+O)

\*3) Value-added per employee, namely a productivity of an employee

(Source) Central Statistical Office: Population Projection of Poland by Voivodship 1996-2020; 1997

Central Statistical Office: Registered Unemployment in Poland I-IV Quarter 1996, 1997

Table 4.2-2 for 1995





## 4.4 Structure of Master Plan and Project Long List

### 4.4.1 Structure of Master Plan

Figure 4.4-1 shows the structure of the Study or master plan study in Konin Province. The structure of the proposed master plan is made in accordance with the method of PCM which is adopted separately for each economic sector, or for seven sectors in total.

If the master plan is taken as a project, the following relation is considered following the narrative summary used for PDM:

|                  |                              |
|------------------|------------------------------|
| Overall goal:    | Frameworks of the Study      |
| Project purpose: | Sectoral development concept |
| Output:          | Strategies for the concept   |

If each sector is taken as a project, the following relation is considered:

|                  |  |
|------------------|--|
| Overall goal:    | Sectoral development concept                   |
| Project purpose: | Strategies for the concept                     |
| Output:          | Projects under a strategy (long list projects) |

Refer to Table 4.1-4 for a better understanding of the above relation.

The Sector Report has defined sector by sector the potentials for and constraints against regional development of Konin Province. The Sector Report and Project Report have also described in details rationales for identification of 70 projects under 28 strategies of seven sectors. The 70 projects are called "long list projects". The flow from the framework to the long list in Table 4.4-1 composes the proposed master plan of the Study.

A project profile that describes the outline of the project will be prepared for each of the 70 projects. Then priority projects will be chosen from the long list for detailed project studies (DPS). Methodology of the priority projects selection will be shown in Chapter 5 in this Main Report and DPS will be filed in the Project Report.

## 4.4.2 Project Long List

A project long list consisting of 70 projects is shown in Table 4.4-1. Those projects have been identified for achieving the aims of each strategy as described in this Sector Report. A profile of each project is given briefly in the Project Report attached at the end of this report.

### 4.4.2.1 Criteria for Projects Identification

There may be various ideas for projects to realize a strategy for an economic sector; small or big in size, programs for promotional movements or investment projects, new projects or improvement of the existing projects, projects for the public sector or private sector, etc. Basically, the Team has not eliminated any project ideas on the grounds solely of their type or nature. However, there should be criteria to screen those project ideas to make a project long list. The following will clarify the criteria for the screening from ideas to projects in the long list, showing examples:

(Note) Recommendations on policies and institutional systems are not considered as projects: they will be dealt with in the following section as "Policy Recommendation".

#### Project ideas screened out toward the project long list

1) Projects which have big constraints or disadvantages to implement in Konin.

Ex.) Soil improvement of farm land throughout the province

2) Projects which are now proceeding fairly well, or are being accomplished rather satisfactorily.

Ex.) Environment monitoring system

3) Projects which shall be monitored for the time being because they have just started or are about to be realized.

Ex.) An agriculture forum for exchange of technological information

4) Projects which are still considerable but seem apparently to be unfeasible.

Ex.) Construction of a new town for commuters from Konin to Poznan

5) Activities which shall be done in routine works of the public sector

Ex.) Education for inhabitants to follow regulations for land use

Since the above criteria do not eliminate project ideas, various types of projects are included in the project long list as mentioned below:

The long list includes the following types of projects:

1) New projects for Konin Province even if anybody once talked about those projects.

Ex.) Cold warehouses for agriculture products utilizing energy from power plants

2) Projects which have a new concept or viewpoint even if similar projects were once studied.

Ex.) A woodworking industrial park

3) Projects which are now on-going or accomplished but need improvement or strengthening.

Ex.) A natural habitat observation park

4) Projects which have been once given up or failed but are needed to be studied again.

Ex.) Revival of herb cultivation as "Konin Herb Garden"

5) Projects which are now under planning but need more assistance.

Ex.) Promotion of agro-tourism

#### **4.4.2.2 The number of the Identified projects by sector**

Each of the identified 70 projects belongs to a specific sector as its original classification. A project, however, often will have a wide range of output and contribute to two or more strategies as well as sectors: for instance, "promotion of agro-tourism" may contribute to both sectors of agriculture

and tourism. Thus, such projects shall also be classified in other sectors as sub-classification. This relation is shown in the following table.

| Sector                    | Original Classification | Sub-Classification | Projects for the sector |
|---------------------------|-------------------------|--------------------|-------------------------|
| Agriculture               | 10                      | 4                  | 14                      |
| Three key industries      | 15                      | 5                  | 20                      |
| Industry                  | 10                      | 2                  | 12                      |
| Distribution & transport  | 9                       | 2                  | 11                      |
| Tourism                   | 8                       | 4                  | 12                      |
| Land use & infrastructure | 14                      | 0                  | 14                      |
| Manpower development      | 4                       | 4                  | 8                       |
| <b>Total</b>              | <b>70</b>               | <b>21</b>          | <b>91</b>               |

#### 4.4.3 Schedule of Project Implementation

In order to decide the schedule of project implementation, following factors are specifically taken into account as desirable factors for earlier implementation:

(1) Availability of resources:

When all required resources for the project, such as input materials, technologies specifically required for the project, relatively small initial investment funds, etc., are readily available in the Province, such project is considered for earlier implementation.

(2) Consistency with state and provincial governments' policies and laws:

When the project is consistent with development policies of the central and provincial governments and is possible to implement under the current laws and regulation~ such project would be implemented earlier.

(3) Demand for the outputs of the project:

Demand for the outputs/products of the project is sound and promising; such project is scheduled for earlier implementation.

(4) Technological linkages with other projects:

When the project is technologically linked to other projects, such project is implemented earlier than projects linked back wardly to the project .

(5) Cost recovery period:

The shorter cost recovery period for the project is considered a positive factor for earlier implementation.

Figure 4.4-2 indicates the schedule of project implementation for all 70 projects.

#### **4.4.4 Contribution of 70 Projects to Regional Development of Konin Province**

This section presents a calculation of the contribution through the year 2010 of 70 projects included in the master plan to the target indicators. It should be noted, however, that it must be expected that in actuality all of the proposed 70 projects will not be implemented and investment will be made to many projects other than the 70. And since the Study does not attempt to forecast the economic growth of all the economic sectors in Konin Province, the calculation only indicates the contribution of the 70 projects to the economy of Konin Province.

(1) Investment

Figure 4.4-2 contains an estimate of the investment amount for 70 projects year by year together with their implementation schedule. Total investment outlay requirements as estimated in Section 4.3.3 will grow at the annual rate of 6.0% through 2010. After the adjustment of the price basis of the above two investment figures for purposes of comparability, share of 70 projects in the total investment outlay required is derived as shown in Table 4.4-2 . The total amount of investment for the 70 projects has a share of around 20% of the total requirements in 2000 and 2001 which are the peak years of investment for the 70 projects. The amount also has a share of slightly less than 4.0% of total GRDP in Konin Province. Investment for the 70 projects account for 8.0% of total investment requirements during the period from 1998 to 2010.

**Table 4.4-2 SHARE OF INVESTMENT DIRECTLY INDUCED BY PROJECT IMPLEMENTATION, IN REQUIRED INVESTMENT AND GRDP**

(Unit: million US\$ in 1997 prices)

|   | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 1998/<br>2010 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|
| Investment directly induced by project implementation (A) | nil   | 24.2  | 66.3  | 70.8  | 51.1  | 33.7  | 35.6  | 55.4  | 53.1  | 29.4  | 6.7   | 5.0   | 0.0   | 431.2         |
| Required investment (B)                                   | 287   | 304   | 322   | 342   | 362   | 384   | 407   | 432   | 457   | 485   | 514   | 545   | 578   | 5,419         |
| (A)(B)  | 0.0%  | 7.9%  | 20.6% | 20.7% | 14.1% | 8.8%  | 8.7%  | 12.8% | 11.6% | 6.1%  | 1.3%  | 0.9%  | 0.0%  | 8.0%          |
| GRDP (Konin) (C)  | 1,563 | 1,653 | 1,756 | 1,862 | 1,973 | 2,092 | 2,217 | 2,350 | 2,491 | 2,641 | 2,799 | 2,967 | 3,145 | -             |
| (A)(C)  | 0.0%  | 1.5%  | 3.8%  | 3.8%  | 2.6%  | 1.6%  | 1.6%  | 2.4%  | 2.1%  | 1.1%  | 0.2%  | 0.2%  | 0.0%  | -             |
| (B)(C)  | 18.4% | 18.4% | 18.4% | 18.4% | 18.4% | 18.4% | 18.4% | 18.4% | 18.4% | 18.4% | 18.4% | 18.4% | 18.4% | 18.4%         |

(Note): The currency exchange rate used for calculating required investment and GRDP during the 1997-2010 period is 3.29, the annual average exchange rate in 1997.

The inflation rates used for the conversion of 1995 prices into 1997 prices are 19.8% for 1996 and 15.6% for 1997 respectively.

(Source) Table 2.1-1, Table 4.3-7, Figure 4.1-2, The Economist Intelligence Unit, *Country Report: Poland 1st quarter 1998*.

## (2) Employment

Figure 4.4-3 shows job opportunities to be directly created by the 70 projects, which totals 8,781 employees through 2010. Total job requirements until 2010, on the other hand, was estimated as about 50,000. Thus, creation of job opportunities by 70 projects accounts for not more than 20% of total demand for employment. However, the number of jobs that will actually be created is estimated as two to three times the number in Figure 4.4-3 because of a multiplier effect. The number in this figure indicates just direct employees at the commencement of operation of the projects. Direct employment for the 70 projects will increase year by year and indirect employment will also increase.

## EXPLANATORY NOTES ON WORDING IN Table 4.4-1

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Most project titles start with a word that indicates an activity. Although such wording can not be strictly applied, differences in meaning are nearly as follows:

**Master plan study:** Projects which comprise various components and sectors. A further study is needed for project conceptualization. (One project is proposed for master plan study; KI-6 Master plan study for utilization of underground water)

**Feasibility study:** Projects which are generally said to be low in profitability from the viewpoint of large scale companies or three key industries. The Team proposes a detailed feasibility study to clarify real profitability from the viewpoint of SMEs. (Two projects; KI-4 Feasibility study for brown coal ash, KI-5 Feasibility study for gypsum board)

**Detailed study:** Projects which are to be promoted under the development policy or program of the province. The Team could not identify their advantages or a clear concept. Review of the policy, by a detailed study, is proposed. (One project; AG-6 Detailed study for fruits and vegetables promotion)

**Construction:** Projects which involve fixed investment to hardware and have a clear project concept. (Many projects; Ex. LD-12 Construction of centralized waste treatment facilities)

**Establishment:** Projects which aim to newly establish functional organizations and systems such as management systems, service systems, centers, companies, universities, etc. (Many projects; Ex. Establishment of one-stop service center)

**Development:** Projects which mainly relate to development of space, area, and resources. (Many projects; Ex. Development of hot spring resources)

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### Notes:

(\*) 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.

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**Table 4.4-1(1/7) AGRICULTURE: 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.

| Improvement of profitability of farms in the Konin province |  |   |
|---|--|---|
| Concept   | Aims of Strategy   | Projects  |
| (1) Quality and productivity improvement                    | This strategy aims at improving quality of agriculture produce and productivity of farms in the Konin province through the effective extension of new technology and knowledge, so that they can meet the actual demand and compete with foreign agricultural producers. | AG-1 Strengthening of experimental activities on agricultural technologies<br>AG-2 Strengthening of agriculture technology schools in Koscielce<br>AG-3 Establishment of comprehensive irrigation management system<br>AG-4 Development of on-farm drainage systems<br>(AG-5) * Promotion of group sales activities |
| (2) Modernization of farm management                        | This strategy aims at establishing better farm management systems in order to keep a reasonable selling price level and to lower production costs in aspects of farm management.   | (AG-5) * Promotion of group sales activities<br>(MP-4) ** Establishment of a job intermediary center with data base   |
| (3) Development of effective marketing system               | This strategy aims at developing marketing systems which producers can easily access.  | AG-5 Promotion of group sales activities<br>(KI-8) ** Construction of a cold warehouse for agricultural products<br>(DT-7) ** Construction of a distribution center for fruits and vegetables   |
| (4) Diversification of agriculture                          | This strategy aims at developing new agricultural patterns and products which are not prevalent in the Konin province. And it seeks non-agricultural income in rural area.   | AG-6 Detailed study for promotion plan of vegetables and fruits<br>AG-7 Construction of "Konin Herb Garden"<br>AG-8 Promotion of organic farming<br>AG-9 Promotion of agro-tourism<br>AG-10 Experimental farming on the refilled land of mines<br>(KI-10) ** Construction of a greenhouse park                      |



**Table 4.4-1(2/7) THREE KEY INDUSTRIES : 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  | New business development with maximum utilization of the existing resources that companies own   |   |
|--|--|---|
| Strategy   | Aims of Strategy   | Projects  |
| (1) Utilization of surplus human resources and materials | Utilize the surplus manpower and technologies derived from restructuring of 3 key industries. Utilize by-produced materials which are now disposed or inefficiently utilized.                | KI-1 Establishment of a construction company<br>KI-2 Establishment of an engineering company<br>KI-3 Establishment of a maintenance and erection company<br>KI-4 Feasibility study for a brown-coal ash utilization company<br>KI-5 Feasibility study for a gypsum board factory<br>KI-6 Master plan study for utilization of underground water (MP-4) ** Establishment of a job intermediary center with data base |
| (2) Utilization of less-utilized assets                  | Utilize a part of brown coal mine refilled land for other profitable or attractive uses than farm fields, forests or water reservoir uses.   | KI-7 Construction of a golf course on the refilled land of mines (AG-10) ** Experimental farming on the refilled land of mines (LD-12) ** Construction of a centralized waste treatment and disposal facilities   |
| (3) Development of user-industries of heat in Konin      | Utilize heat energy, cogenerated at the power plants, which are not fully utilized in all seasons, thereby improving heat utilization efficiency and emission of pollutants in the Province. | KI-8 Construction of a cold warehouse for agricultural products<br>KI-9 Construction of a "Heat Industrial Park"<br>KI-10 Construction of a greenhouse park<br>(TR-5) ** Construction of a tropical botany and butterfly garden<br>(ID-2) ** Construction of a Konin woodworking industrial park  |
| (4) Development of aluminum down-stream industries       | Develop aluminum processing industries in Konin Province to fabricate various value-added products utilizing products of Huta Aluminum Konin   | KI-11 Construction of an aluminum radiator factory<br>KI-12 Construction of an aluminum foil lamination factory<br>KI-13 Construction of an aluminum foil work factory<br>KI-14 Construction of an aluminum sheet work factory<br>KI-15 Construction of an aluminum construction materials factory  |

**Table 4.4-1(3/7) 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.

| Diversification and invigoration of industry in the Konin Province |  |
|--|--|
| Concept  | Projects   |
| Strategy   | Alms of Strategy   |
| (1) Investment for promotion of new manufacturing industries       | <p>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.</p> <p>ID-1 Establishment of a one-stop investment service center<br/>           ID-2 Construction of a Konin woodworking industrial park<br/>           ID-3 Construction of foodstuff processing factories</p>                    |
| (2) Restructuring of enterprises in transition to privatization    | <p>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.</p> <p>ID-4 Re-education of managers on management and production technologies<br/>           ID-5 Establishment of financing assistance scheme for new entrepreneurs<br/>           (MP-4) ** Establishment of a job intermediary center with data base</p> |
| (3) Invigoration of small and medium -scale enterprises (SMEs)     | <p>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</p> <p>ID-6 Execution of traveling clinic services for SMEs<br/>           ID-7 Movement of diffusion for TQM/"Kaizen (improvement)"<br/>           (ID-4) * Re-education of managers on management and production technologies<br/>           (ID-5) * Establishment of financing assistance scheme for new entrepreneurs</p>                                     |
| (4) Establishment of institutional supporting system               | <p>Coordinate and improve systems for industrial promotion and strengthen functions of executive organs, thereby promoting and backing Konin's industry.</p> <p>ID-8 Establishment of an SMEs consulting center<br/>           ID-9 Establishment of an apparel design center<br/>           ID-10 Organization of "Economic Forum 2010"<br/>           (LD-13) ** Construction of industrial parks for general</p>  |

**Table 4.4-1(4/7) PHYSICAL DISTRIBUTION AND TRANSPORTATION: 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.

| Establishment of efficient distribution and transportation system corresponding to market economy |  |
|---|--|
| Concept   | Projects   |
| <p><b>Strategy</b></p> <p>(1) Maximum utilization of potentials in transport infrastructure</p>   | <p><b>Aims of Strategy</b></p> <p>The strategy aims to enlarge utilization of the existing transport infrastructure, i.e. roads, railroads and navigable waterways. In addition, the Highway (A-2) Construction Project will be another potential for development of construction-related businesses.</p>  |
| <p>(2) Strengthening of the freight transport sector</p>  | <p><b>Projects</b></p> <p>DT-1 Construction of a distribution center for construction materials<br/>           DT-2 Construction of a service area for long distance drivers<br/>           DT-3 Construction of a bonded warehouse with a customs house<br/>           (DT-5) * Construction of wholesale market for consumer goods<br/>           (DT-6) * Construction of a car plaza<br/>           (DT-7) * Construction of a distribution center for fruits and vegetables</p>   |
| <p>(3) Promotion of trade and transaction</p>   | <p><b>Aims of Strategy</b></p> <p>The strategy aims to support transport sector for strengthening of its competitiveness from the viewpoint of international standards.</p>  |
| <p>(4) Improvement of commuting system</p>  | <p><b>Projects</b></p> <p>DT-4 Strengthening of organization of physical distribution sector</p> <p>DT-5 Construction of wholesale market for consumer goods<br/>           DT-6 Construction of a car plaza<br/>           DT-7 Construction of a distribution center for fruits and vegetables<br/>           (KI-8) ** Construction of a cold warehouse for agricultural products</p> <p>DT-8 introduction of rapid train services for commuters<br/>           DT-9 Establishment of mini-bus services<br/>           (LD-5) ** Residential area provision for new investment projects</p> |

**Table 4.4-1(5/7) TOURISM: 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.

| Full utilization of tourist attractions in Konin   |  |  |
|--|--|--|
| Concept  | Aims of Strategy   | Projects   |
| (1) Strengthening of the existing tourism patterns | This is to review the existing tourist resources and facilities and re-activate the pattern of tourism.  | TR-1 Development of the lake areas in north-west of Konin<br>TR-2 Development of an integrated sport-recreation zone   |
| (2) Development of new tourism patterns            | This strategy aims to develop untapped tourist resources or new tourist facilities and tourism patterns taking advantage of unique characteristics of Konin province, so that Konin could change the image of the province.                        | TR-3 Development of a natural habitat observation park<br>TR-4 Development of hot spring resources<br>TR-5 Construction of a tropical botany and butterfly garden (AG-9) *** Promotion of agro-tourism (KI-7) ** Construction of a golf-course on the refilled land of mines |
| (3) Preparation of tourist infrastructure          | This aims to improve the infrastructure for both hardware and software needed in the tourist industry. Comprehensive tourism Act is under preparation and put into effect in January 1998. This strategy aims to take action based on the new Act. | (LD-9) ** Preparation of roads in tourist area<br>(LD-11) ** Preparation of water supply and sewage systems in tourist areas   |
| (4) Strengthening of Konin tourism promotion       | This aims to improve the image of Konin Province and re-strengthen tourism organization and promotion tools.   | TR-6 Up-grading of tourism promotion tools<br>TR-7 Establishment of a tourism information center in Konin<br>TR-8 Promotion of "Clean Konin" campaign program  |

**Table 4.4-1 (6/7) LAND USE DEVELOPMENT AND INFRASTRUCTURE : 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.

| Development with harmonization of rural and urban function |  |   |
|--|--|---|
| Concept  | Aims of Strategy   |   |
| Strategy   | Projects   |   |
| (1) Further invigoration of function in urban area         | This strategy aims at enlarging functions of urban areas to cope with demand increase in the future including Konin, Kolo, Slupca, Truek and some urban-rural gminas.  | LD-1 Development of selected commercial areas<br>LD-2 Construction of a large scale shopping mall<br>LD-3 Development of the railroad station front areas   |
| (2) Intensification of sector-oriented land use            | This strategy aims at re-allocation of existing industries from agricultural area as well as efficient use of land and conservation of environment.  | LD-4 Land allocation for rural industrial zones   |
| (3) Preparation of residential area                        | This strategy aims at increasing supply of individual housing complexes to those who live in urban area as well as increasing mobility of labor force.   | LD-5 Residential area provision for new investment projects<br>LD-6 Supply of a low cost housing  |
| (4) Improvement of infrastructure within the province      | This strategy aims at improving roads in the province, access to National road No.2 and the A-2 highway, and communal infrastructure such as water supply and sewage systems and waste treatment facilities. | LD-7 Expansion of connecting roads among main cities<br>LD-8 Improvement of access roads to trunk roads<br>LD-9 Preparation of roads in tourist areas<br>LD-10 Rehabilitation of bridges connecting gmina roads<br>LD-11 Preparation of water supply and sewage systems in tourist areas<br>LD-12 Construction of a centralized waste treatment and disposal facilities<br>LD-13 Construction of industrial parks for general use<br>LD-14 Development of Warta River banks |

**Table 4.4-1 (7/7) MANPOWER DEVELOPMENT: 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.

| Supply of manpower suitable for the market economy  |   |
|---|---|
| Concept   | Projects  |
| Strategy  | Aims of Strategy  |
| (1) Provision of higher educational opportunity     | This strategy aims to provide higher educational opportunities to a wide range of people in the Konin province.<br>MP-1 Establishment of the schools for higher education<br>MP-2 Expansion of non-stationed education for workers  |
| (2) Adjustment of education system to market needs  | This strategy aims at reorganizing the current structure of secondary education into the one suitable for the needs of the local labor market.<br>MP-3 Expansion of general secondary education (AG-2) ** Strengthening of agriculture technology schools in Koscielce          |
| (3) Improvement of management skills in enterprises | This strategy aims at providing the local managers with modern management skills suitable for the experience in the market economy.<br>(ID-4) ** Re-education of managers on management and production technologies   |
| (4) Mobilization of manpower in the province        | This strategy aims at mobilization of manpower in the province e.g. inter-gminas and inter-sectors.<br>MP-4 Establishment of a job intermediary center with data base (DT-8) ** Introduction of rapid train services for commuters (DT-9) ** Establishment of mini-bus services |

Figure 4.4-1 SCHEMATIC DIAGRAM OF DEVELOPMENT SCENARIO OF THE MASTER PLAN

