PLD-2 Supply of Low Cost Housing (LD-6)

1. RATIONALE OF THE PROPOSED PROJECT

(1) Background

The conditions of flats and other housing in Konin Province are not yet well established, and it is ranked 33rd out of the 49 provinces in the country. In Konin, only a limited number of people who have professional occupations, such as owners of businesses, lawyers, and medical doctors can afford to move into detached houses in the suburbs of the city. Contrastingly, those people on low and middle incomes who live in flats in the urban areas are very unlikely to be able to move into detached houses due to the scarcity and high cost of such properties.

(2) Demand and Supply Conditions

The following table shows the number of flats and detached houses that have been built in the province, divided by municipal type, between 1995 and 1997.

Table PLD-2.1 Types of Houses being Constructed during 1995 - 1997

Year / Types of Housing	1995		1996		1997	
	Flat	Detached	Flat	Detached	Flat	Detached
Urban Municipality Total	332	158	196	173	271	210
Urban and rural Municipality Total	48	249	45	121	57	116
Rural Municipality	9	279	5	210	2	109
Province Total	389	686	246	504	330	435

(Source: Statistical Office in Konin)

As Table PLD-2.1 shows, the number of detached houses constructed in urban municipality has increased each year. This trend indicates that more residents who are living in urban municipalities are tending to obtain detached houses. However, this is usually only the case for people who are on middle-to-high incomes. On the other hand those people who are on low incomes are unlikely to be able to obtain such detached houses and in some cases they would not wish to do so anyway. According to the direct hearing interviews, comprising approximately 50 samples, conducted by the Study Team with those who live in flats in urban areas, and thus considered as being low-to-middle-income people,

nearly 80% of interviewees replied that they wish to move into a detached house. The reasons for wishing to move into a detached house given by such interviewees included the following:-

a) Number of rooms in each flat is not enough to cope adequately with the number of family members.
b) Buildings themselves are old.
c) Size of each room is not large enough.
d) Feel insecure
e) Wish to have a garden.

The reasons given by those interviewees who do not desire to move into a detached house but wish to stay in their present residences included the following:-

a) Relatives live in the countryside and can visit whenever they wish.
b) Housing rent is currently low.
c) Building cost of a detached house is too high and is, therefore, unaffordable.

(3) Proposed Reasons

a) Those people on low and middle incomes who wish to obtain a detached house will be able to do so with more ease through the undertaking of the project.
b) The project is able to give people dreams of obtaining a detached house.
c) Konin has rich resources of building these houses such as wood for buildings and other construction materials, all of which are produced in the province.
d) Spaces are available throughout the province in both urban and suburban areas.

2. Project Purpose

The purpose of this project is to improve the standard of living conditions in the province for people.

3. Output of the Project

(1) Carry out a feasibility study for the project
(2) Select space for construction sites
(3) Develop the chosen areas within the construction sites
(4) Build several types of model houses
(5) Establish special low loan schemes for the housing
(6) Receive orders for the selected type of house
(7) Start construction of the houses ordered.

4. PROJECT DESCRIPTION

4-1. Total development area

A total of 10 ha. in major cities (first, in Konin city as Phase I) or its suburban area, at the initial stage, and to enlarge this by looking at circumstances and the level of sales of the houses. The development area includes individual housing spaces, parks, a community recreation center for the residents, a play area for children, garbage collection yards, a pond for the collection of rainwater, and other necessary facilities.

4-2. Size of land per house

Approximately 100 to 120 M^2 per house with gardening yards and garage.

4-3. Price ranges per house

From PLN 140,000 to 170,000 per house.

4-4. Organization of operating partnership company

A partnership company is to be set up to act as the implementation body (See 5 for detail). The organization structure and its functions are described below:-

(1) Project Manager (1) --- To be responsible for the overall management of the project from the initial stages of development right through to project completion.
(2) Financial Manager (1) --- Will be the chief financial coordinator with responsibilities that include management of incoming capital and outgoing expenses of the project.

(3) Accountant (1) --- To act as a subordinate of the Financial Manager and manages cash flow, keeps financial records, negotiates with banks, etc.

(4) Land Development Manager (1) --- To handle all activities related to land development including negotiation with the construction companies, building material manufacturers and suppliers.

(5) Architect and Designer (2) --- To be involved in making blueprints and designing the layouts of individual detached houses based on the requirements of customers.

(6) Sales Manager (1) --- Responsible for the sales activities of newly constructed detached houses (model houses). He should not only have sales oriented negotiation capabilities but also a financial background and knowledge of negotiating with customers since the loaning process and interest rate calculations are important issues in the project.

(7) Sales Personnel (2) --- To assist the sales manager and promote sales of the detached houses.

(8) Internal Affairs Staff (2) --- To take care of all daily incidental tasks which occur in the company including telephone answering and documentation activities.

(Note: Number in the parenthesis indicates number of staff in the company)

4-5. Implementation schedule

Table PLD-2.2 Implementation Schedule of Low Cost Housing

Schedule (Month) / Working Item	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
(Low Cost Housing)																				
1. Feasibility study																				
2. Site selection																				
3. Land acquisition																				
4. Land development																				
5. Zoning																				
6. Design model room																				
7. Construction																				
8. Sales promotion																				
9. Contract with customers																				
10. Delivery of home																				
Schedule (Month)	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40

4-6.Estimated capital requirement

Table PLD-2.3 Estimated Capital Requirements
(US$,000)

Location / Cost of Item	Konin	Kolo	Slupca	Turek	Total
A. Fesibility Study Cost	25	25	25	25	100
B. Site Selection Cost	20	20	20	20	80
C. Land Acquisition Cost	20	20	20	20	80
D. Land Development Cost	150	150	150	150	600
E. Design Cost	100	100	100	100	400
F. Construction Cost	300	300	300	300	1,200
G. Sales Promotion Cost	20	20	20	20	80
H. Labour Cost	20	20	20	20	80
I. Others	66	66	66	66	262
Total	**721**	**721**	**721**	**721**	**2,782**

Note: *1 Costs for land acquisition per ha. is estimated and calculated as follows;
Konin($ 20,000), Kolo($ 20,000),and Turek($ 20,000).

5. IMPLEMENTATION BODY AND FINANCING SOURCE

5.1 Implementation Body

The partnership corporation should be a joint venture in structure consisting of municipalities (in case the land was owned wholly or partly by municipality), landowners, individual banks or bank consortiums, construction companies, and building material manufacturers and suppliers.

5.2 Financial source

Landowners are to supply lands and automatically become shareholders equivalent to the value of the land they offer. Others partners such as banks, construction companies, and building material manufacturers and suppliers will also share the finance. 50 % of the total investment for the project is to be invested by the partnership companies with the remaining 50 % being financed by other banks. Land and newly constructed houses can be set as collateral.

6. ACTIVITIES

(1) Carry out a feasibility study for the project

A feasibility survey should be carried out at first to investigate the latent needs for demand of such detached houses by considering the type of house, location, space required, size of house required, affordable price range, affordable loans and interest rates, etc.

(2) Select space for construction sites

a) To select the prospective sites and negotiate with landowners for acquisition of land.

b) To invite prospective investors to provide funds to the project and implementation of the project.

(3) Develop selected area of construction sites

a) To design the zoning of the site and draw up a blueprint.

b) To start construction for development of the selected site.

(4) Build several types of model houses

a) Based on the users' needs surveyed which will be looked at in the first stage of the project, to build several types of model houses, e.g. Type A and Type B.

b) Display the different types and kinds of building materials such as roofing, flooring, wall materials, wardrobes material, and so on. When doing this it must be emphasized to prospective customers that most materials are produced and processed in Konin.

(5) Establish special low cost housing loan schemes

a) Based on negotiations with certain banks, ideally with those banks which are involved as initial investment partners for this project, special low cost housing loan schemes will be set up and offered to prospective purchasers of the detached houses.

b) To develop banking arrangements to help those customers who are unable to afford the initial down payments required.

(6) Receive orders of the selected type of house

a) To discuss with prospective customers requirements on type of house, space needed, type of interior and exterior design, etc.

b) To make inquiries into the financial status of prospective customers, including their financial sources, annual income, amount of down payment, collateral to be offered, and repayment schedules.
c) To sign the contract once the customers have passed this vetting procedure.

(7) Start construction of the houses ordered

a) To set up the construction schedule to meet customers' requirements. It is important to note that, for a customer, the date of moving into their new house and the date of leaving their old house should be matched up as much as possible for convenience.
b) To start construction of the houses based on customers' demands and requirements.
c) Keeping to the construction schedule is extremely important, particularly from the point of view of customers.

7. EXPECTED BENEFIT OF THE PROJECT

7.1 DIRECT BENEFIT

1) The conditions of flats and other housing in Konin Province will be ranked higher than the current position of 33rd out of the 49 provinces in the country.
2) Those residents who move into detached houses will accomplish their dreams and be able to obtain a comfortable standard of living.
3) Working attitudes and habits of those who obtain detached houses will changing since they will be required to meet housing repayments and loans.
4) Mobility of manpower particularly from rural to urban areas in the province will increase. The flats of those residents who will obtain new detached houses will be able to be used for other people who are coming into the urban area, or alternatively such flats and spaces can be used for other purposes. (Note to Mr Maeda - please check I have interpreted the meaning of this sentence correctly)
5) There will be a boom in housing construction influenced by this project.
6) Opportunities for expansion in the market will be given to building construction companies and material manufacturers and suppliers.
7) Creation of employment in site development and housing construction areas will take place.

7.2 INDIRECT BENEFIT

1) Production volumes of building and construction material will increase.
2) Competition among building material manufacturers and suppliers will increase in the province and will provide a strong incentive to produce products of higher quality.
3) Creation and expansion of employment in construction and building material manufacturers and suppliers will increase.

8. WEAKNESS OF THE PROJECT

(1) Although people have dreams of obtaining detached houses, they will tend to stay in their current flats since the cost is low.
(2) The interest rate of banks for housing loans is too high at present. (It varies depending on the borrower, but normally it exceeds 20 % a year)
(3) Borrowers do not have enough collateral to afford the loan.

Figure PLD-2.1 PROPOSED SITE FOR LOW COST HOUSING

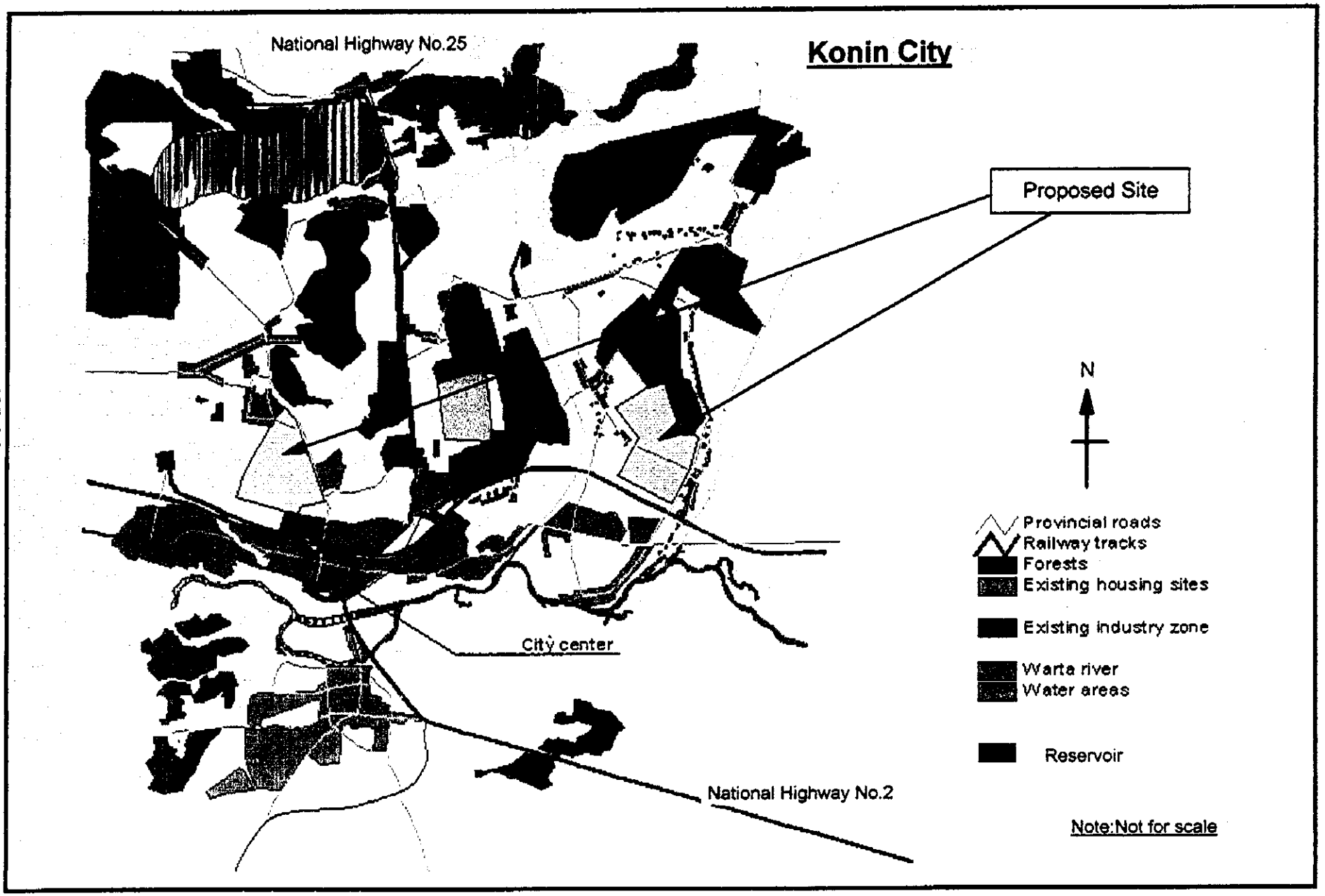

Table PLD-2.4 PDM: SUPPLY OF LOW COST HOUSING (LD-6)

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal Residential area is prepared.	- Number of household living in the flats and detached houses.	- Periodical survey	
Project Purpose Residential area for potential investors and residents are prepared.	- Number of houses built.	- Periodical survey and research.	Housing policy should not be changed.
Output 1. Carry out feasibility study for the project 2. Select space for construction sites 3. Develop selected area of construction sites 4. Build several types of model houses 5. Establish special low housing loans systems 6. Receive orders of the selected type of a house 7. Start construction of the ordered houses	1-1. Result of feasibility study. 2-1. Availability of the spaces. 4-1. Designs are accepted by the prospect 5.1. Interest rate of housing loans.	1. Carry out the study. 2. Land use plan for housing. 4. Needs promotion. 5. Set up new housing loan policy.	
Activities 1-1. To carry out feasibility study, latent needs, types, cost ranges, loans, etc. 2-1. To select the sites and negotiate with land owners for land acquisition. 2-2. To invite prospective investors and raise funds for implementation. 3-1. To design for zoning of the site and draw blueprint. 3-2. To start construction for development of the selected site. 4-1. To build several types of model houses, e.g. Type A and Type B. 4-2. To display building materials and emphasize materials are made in Konin. 5-1. To set up and offer special low housing loans system. 5-2. To make systems allow customers to be able to afford initial down payment. 6-1. To discuss with the customers on types of house, space layouts, etc. 6-2. To make an inquiry into the financial status of the prospective customers. 6-3. To sign up the contract once the customers are qualified. 7-1. To setup construction schedule to meet with the customers requirements. 7-2. To start construction of the house. 7-3. To follow construction schedule.	**Input** (US $,000) A. Feasibility Cost 100 B. Site Selection Cost 80 C. Land Acquisition Cost 80 D. Land Development Cost 600 E. Design Cost 400 F. Construction Cost 1,200 G. Sales Promotion Cost 80 H. Manpower Cost 80 I. Others 262 Total 2,882		- "Made in Konin" construction materials should be used. - Price per house should be ranged from PLN 100,000 to 150,000. - Space per house should be 80 to 100 m^2 - Income of individuals do not decrease.

PLD-3 Construction of a Centralized Waste Treatment and Disposal Facilities on the Refilled Land (LD-12)

1. Rationale of the Proposed Project

(1) Background

At present waste produced from individual households is dumped in a designated area, and most Gmina have their own dumping ground within their administrative area. (For reference, please see Figure 5.1.2-1) However, the waste collected from each household is not sorted by type, eg. flammable and non-inflammable materials, cans and bottles. These are mixed and dumped into the same dumping ground.

All the waste from industry, residents and farms should be made harmless and then be placed into a controlled final disposal pit sorted by waste type. Secondary-pollution from the treatment facilities should, therefore, be avoided by this waste treatment facility. The land in reclaimed lignite coal mines is suitable to construct such waste treatment facilities in Konin.

(2) Supply and demand conditions

Regarding industrial waste, Office of the Konin Governor and FUTA Aluminum Company have established a joint project operation company to construct an industrial waste treatment facility in a 20 ha. of vacant land on FUTA's site. This was organized in 1995 by sharing 60% investment fund from FUTA with the remaining 40% share from Office of the Konin Governor. The objective of the project is to construct a waste treatment facility and treat both industrial and medical wastes produced from not only Konin but also neighboring provinces. The project only concentrates on industrial waste treatment and does not include the waste produced from households.

There is another project under planning concerning the construction of a Gmina waste treatment facility with Office of the Kalisz Governor taking a lead part. The project is organized for 35 cities, all of which are located in a 20-25 km radius from the city of Kalisz, including Konin provincial cities (Turek and Konin) and other major cities in neighboring provinces.

This proposed project is separated from the two projects mentioned above since the first mentioned is only for an industrial waste treatment facility and the second is already in the process of being undertaken. The proposed project is mooted especially to cover the northern part of the province, Gmina, located beyond National Highway No.2 including the cities of Slupca and Kolo as these two cities are not included in the 20-25 km radius from Kalisz city.

(3) Proposed reasons

(1) This project is proposed to reallocate existing dumping grounds, which are scattered throughout the province, into an integrated location.
(2) To prevent secondary pollution which is caused from existing dumping grounds since waste is dumped without sorting.
(3) The project is proposed to give a comfortable living environment to the residents.

2. Project Purpose

To protect living and natural environment of the province.

3. Output of the Project

(1) Construct a controlled final disposal facility for waste treatment and a dumping ground for the waste.

(2) Establish waste recycling systems, such as reproduction of fertilizers from organic waste, glass and paper recycling and a re-distribution system.

4. Project Description

4-1. Total development area

Approximately 40 to 50 ha. is proposed. Within the area, 20 ha. should be allocated for the waste treatment facility and the rest being the actual dumping ground after treatment. The dumping area should not be in the same location as the treatment plant and facility. However, it is recommended to allocate the area where the soil is classified as 5^{th} or 6^{th} grade. The dumping area should be

enlarged in case of increased volume in the future, so expansion of the space should be considered depending upon the requirements. Figure PLD-3.1 in the last part of this section shows the proposed location of the waste treatment facility in the refilled land and the dumping area in Wilczyn Gmina.

4-2. Location

Treatment facility and plant: Reclaimed land of the lignite mines which is located in the northern part of Konin city.

Dumping grounds: Reclaimed land area of the lignite mines, or the eastern part of Wilczyn area where the grade of soil is low. One of Gmina roads is available between the facility site and this area.

4-3. Organization of operating body

(1) Joint Office of the Governor and Gmina cooperation organization

An organization which consists of a joint Office of the Governor and Gmina cooperation is to be organized. Those Gmina of Kolo and Slupca should act as an pathfinder of this joint organization. This cooperation will comprise the following staff members;

a) Project Manager (1) --- Responsible for overall management and operation of the facility.

b) Financial Manager (1) --- Will be the chief financial coordinator. His functions include managing incoming capital and outgoing expenses of the project.

c) Accountant (1) --- Act as subordinates of the Financial Manager and manage cash flow, keep financial records, and negotiate for personnel of financial position. A person who holds certified public accountant qualifications is most desired in this position.

d) Chief engineer (1) --- Act as a chief engineer for plant engineering operation.

e) Operators (15) --- They consist of machine operators and personnel responsible for the maintenance of the equipment.

f) Internal affairs staff (2) --- To take care of all daily incidental tasks which occur at the site including telephone reception and documentation activities.

4-4. Implementation schedule

Table PLD-3.1 Implementation Schedule of Waste Treatment Facility

Schedule (Month) / Working Item	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46
1. Feasibility Study																							
2. Hold public hearings																							
3. Site selection																							
4. Land acquisition																							
5. Geological survey																							
6. Land development																							
7. Zoning																							
8. Construction																							
Schedule (Month)	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46

4-5. Estimated capital requirement

Table PLD-3.2 Estimated Capital Requirements

(US$,000)

Construction Site / Cost of Item	Treatment Plant		Dumping Ground		Total	
	Required Land (ha.)	Cost	Required Land (ha.)	Cost	Land (ha.)	Cost
A. Feasibility Study	-	15	-	5	-	20
B. Site Selection	-	5	-	5	-	10
C. Public Hearing	-	3	-	3	-	6
D. Geological Survey	-	5	-	5	-	10
E. Land Acquisition*1	20	60	30	90	50	150
G. Land Development	-	5	-	5	-	10
H. Layout & Design	-	5	-	5	-	10
I. Equipment of the plant*2	-	2,000	-	200	-	2,200
J. Construction*3	-	2,000	-	100	-	2,100
K. Others*4	-	410	-	42	-	452
Total	**20**	**4,508**	**30**	**460**	**50**	**4,968**

Note 1: *1 Costs for land acquisition per ha. is estimated and calculated as $ 3000.

*2 Includes transportation, installation and initial operation.

*3 Includes building materials, construction equipment, manpower cost.

*4 Miscellaneous cost is calculated as 1 % of above total costs from A to D.)

Note 2: Operation cost is excluded from the estimation.

5. Implementation Body and Financing Source

5.1 Implementation body

Joint Office of the Governor and Gmina cooperation organization. Those Gmina located in the northern part of the Province beyond National Highway No.2. particularly Gmina of Kolo and Slupca should act as the main implementation

body since they are not joined in the project lead by Kalisz. It is important to note that requesting other bordering Gmina of neighboring provinces such as Wloclawek and Bydgoszcz to join the project is highly necessary.

5.2 Financial source

Office of the Konin Governor and joint Gmina organization share 50 % of the funds. The remaining funds will be raised from the National Environmental Protection Department of central government.

6. Activities

(1) Construct a controlled final disposal facility for waste treatment and a dumping ground for the waste.

1) To carry out a detailed feasibility study for the project before construction of the facility by identifying the following;

a) Types of waste (organic, chemical, inflammable, non-inflammable, solid, liquid, bottles, cans, bottles, large-sized discarded articles, etc.)
b) Location of origin and destination of the waste
c) Sorting system for the waste
d) Transportation systems available and the cost of getting the waste to the plant and dumping ground
e) Flow and dumping process of waste
f) Volumes
g) Construction cost of the treatment system plant
h) Maintenance and support process and cost of the plant
i) Market feasibility
J) Process of operation and management

2) It is highly necessary to hold public hearings to obtain consensus from neighboring residents of the projected site.

3) To select the sites in the reclaimed land area or other areas.

4) To initiate a geological survey of the proposed area.

5) To start negotiation with landowners of the projected site for acquisition of the land.

6) To make zoning and draw up a blueprint.

7) Selection of equipment for treatment plant

8) Initiate construction at the site

(2) Establish waste recycling systems collected and produced from the waste.

1) Educate residents to sort waste by type upon dispatching of the waste from the individual residences. Stock recyclable items in a separated yard from the dumping grounds and then distribute those to prospective users.

2) Reproduce fertilizers from organic waste at the treatment plant, then re-sell to farmers at low cost.

7. Expected Benefits of the Project

7.1 Direct benefits

(1) Prevent secondary pollution from degradation of underground water, soil, and other natural environmental aspects.

(2) Residents are able to enjoy a comfortable living environment.

(3) To be able to use as fundamentals and tools as new land use plan in the reclaimed land of lignite coal mine.

7.2 Indirect benefits

(1) Production volume of building and construction material in the province will increase.

(2) Competition among building material manufacturers and suppliers will increase in the province.

(1) Creation of employment in construction and building material

manufacturers and suppliers will increase.

(2) Able to encourage other provinces to follow the example set by the project.

8. Weaknesses of the Project

(1) National government treats the development of a waste treatment system in Konin as a low priority compared with other provinces.

(2) Gmina have difficulty in collecting funds.

(3) Have difficulty on obtaining consensus from those who live near the projected site.

(4) Have difficulty on organizing inter-Gmina cooperation.

Figure PLD-3.1 PROPOSED SITE FOR WASTE TREATMENT PLANT AND DUMPING AREA

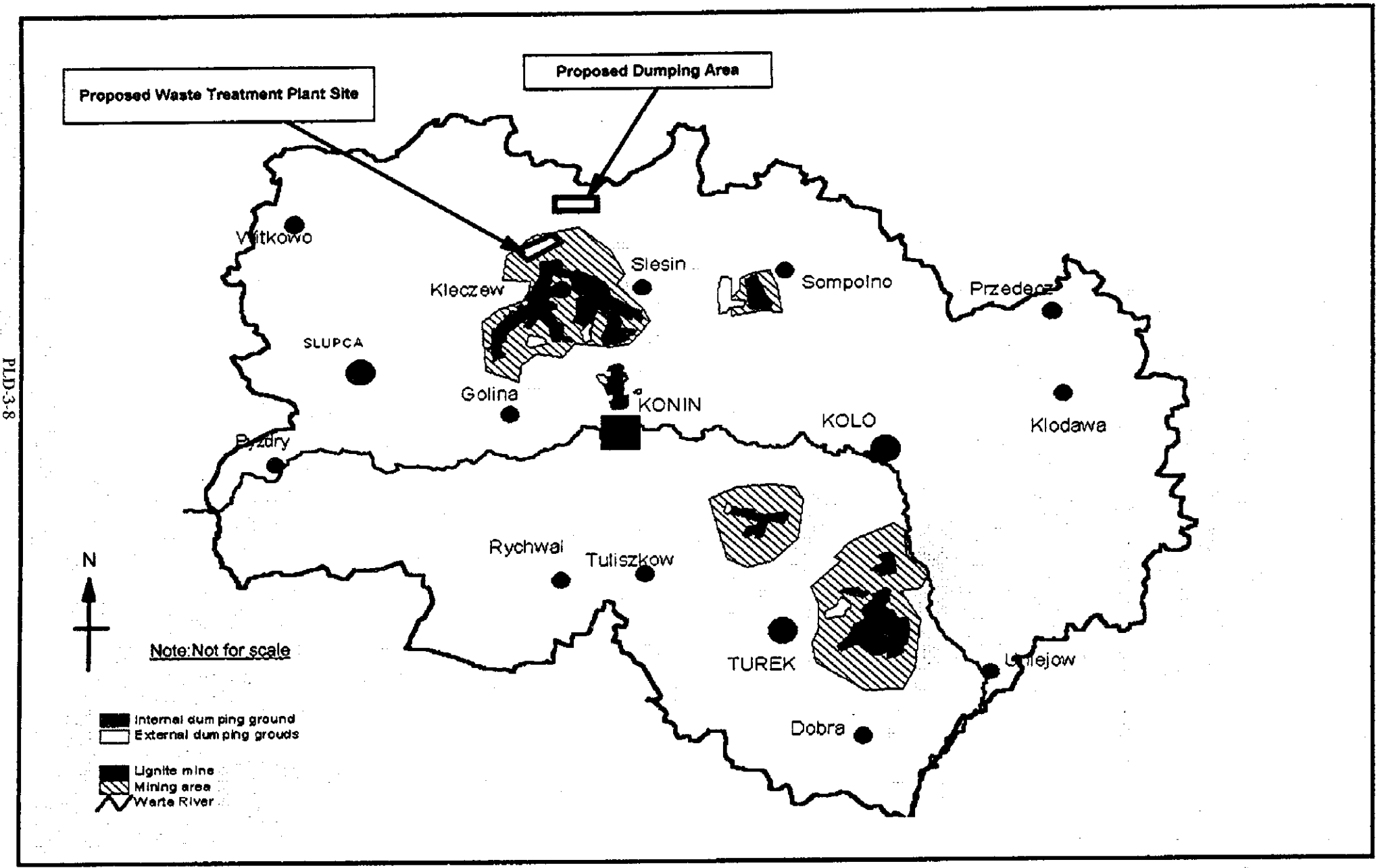

Table PLD-3.3 PDM:CONSTRUCTION OF A CENTRALIZED WASTE TREATMENT AND DISPOSAL FACILITIES ON THE REFILLED LAND (LD-12)

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal Infrastructure in Konin is improved.	Image of Konin	National level research.	
Project Purpose To protect living and natural environment of the province.	- Living and natural environmental conditions in Konin.	Periodical survey	
Output 1. Construct a controlled final disposal facilities of a waste treatment and dumping ground of the wastes. 2. Establish wastes recycling systems, such as reproduce fertilizers from organic wastes, glass and paper recycling and re-distribution system.	1-1. Capacity of the facilities and dumping ground. 2-1. Feasibility of the project.	1. Survey on current conditions. 2. Carry out feasibility survery.	
Activities 1-1. To carry out detailed feasibility by identifying the followings; a) Types of wastes b) Location of origin and destination of the wastes c) Sorting systems of the wastes d) Transportation systems and cost of the wastes d) Flow and dumping process of wastes e) Volumes f) Construction cost of the treatment system plant g) Maintenance and support process and cost of the plant h) Market feasibility I) Process of operation and management 1-2. To hold public hearings to obtain consensus from neighboring residents. 1-3. To select the sites in reclaimed land area or other prospects. 1-4. To initiate geological survey of the prospected area. 1-5. To start negotiation with landowners for acquisition of the land. 1-6. To make zoning and draw blueprint. 1-7. Selection of equipment for treatment plant 1-8. Initiate construction at the site 2-1. To educate residents to sort the wastes by their types. 2-2. To reproduce fertilizers from organic wastes and re-sell to the farmers.	**Input** (US $,000) A. Feasibility Study 20 B. Site Selection 10 C. Public Hearing 6 D. Geological Survey 10 E. Land Acquisition 150 F. Land Development 10 G. Layout & Design 10 H. Equipment of the Plant 2,200 I. Construction 2,100 J. Others 452 **Total 4,968**		- Each Gmina should agree on construction. - Residents should agree on sorting of wastes. - Residents should agree on paying additional fee for collecting of wastes.

PLD-4 Construction of Industrial Parks for General Use (LD-13)

1. Rationale of the Proposed Project

(1) Background

Konin has wealthy resources to attract investors. These include land spaces, energy sources, available human resources, and raw material supply. And accessibility to and from other regions including foreign countries are very good since both international and other major inter-provincial highways are running through the province.

However, present conditions on attracting foreign direct investors in Konin are not well established yet due to insufficient status on preparations of investment environment.

There are some locations within the province, particularly the surrounding area of existing industrial areas and along International Highway A-2, which have already been planned as industrial zones. These include the northern part of Konin City where major industries such as power plants and aluminum factories are located, and the area along the highway A-2. However, these plans are not sufficient to resolve the problem due to the following reasons;

a) The areas are allocated only as open space, and not prepared as "ready-to-move-in" for investors
b) Necessary infrastructure is inadequately prepared
c) Promotion activities to prospective foreign direct investors are not adequately made
d) Investment environment in surrounding area is not in good condition since existing manufacturers are creating pollution, e.g. giving out of bad smells from meat processing manufacturers, uncontrolled air pollution and polluted water outflow from metal manufacturers.
e) Land owners of the planned site are not intending sell the land since some parts of the site are classified as grades 2 and 3 which are considered good soil qualities.

Generally speaking, preparation of industrial parks has two major objectives; the

first is for the dispersal of existing domestic industries, and second being the attraction of foreign direct investors. The proposed project has both aforementioned objectives, however, it is mainly targeted to promote and make Konin an attractive location for foreign direct investors. This is because the Study Team believes that promotion of foreign direct investment will be a major tool of economic development and as a result, a mechansim for the regional development of Konin. To accomplish this goal, construction of large scale industrial parks in Konin is highly recommended.

(2) Demand and Supply Conditions

(2)-1 Demand Conditions

According to the data available from the Polish Agency for Foreign Investment (PAIZ), total value of foreign direct investment made for last 3 years in the whole of Poland is as follows;

1994 --- US $ 4,321 million
1995 --- US $ 6,832 million
1996 --- US $ 10,155 million (as at end of July, 1996)

As shown above, foreign direct investment in Poland is increasing rapidly. The exact rate of growth for last three years is not available at this moment, however, it can be assumed that it averages 50 % every year.

Also according to 1996 data available from the Financial Performance of Businesses with Foreign Capital Involvement in Warsaw, companies with foreign involvement and foreign investment pledges in neighboring provinces of Konin is shown in the table below;

Table PLD-4.1 Companies with Foreign Involvement and Foreign Investment Pledges of Konin and its Neighboring Provinces in 1996

Provinces	Number of Companies	Ratio (%)	Foreign Capital Committed (US $,000)	Ratio
Bydgoszcz	180	1.8	2,754	1.1
Kalisz	99	1.0	20,246	8.4
Konin	68	0.6	1,425	0.6
Leszno	62	0.6	3,025	1.3
Pila	72	0.7	598	0.2
Poznan	548	5.4	57,536	23.8
Torun	119	1.2	989	0.4
Wloclawek	26	0.3	40	0.01
Other Provinces	9,061	88.5	154,761	64.1
Poland Total	10,235	100	241,374	100

(Source: PAIZ, Issue No.3)

Since foreign direct investment in the country is increasing, it is considered that the demand for industrial zones in Poland will increase in parallel to the amount of investment.

Trying to attract foreign direct investment in the neighboring provinces of Konin by preparing industrial zones has been getting more active in recent years. For example, Kleszcow Commune Development Foundation in Municipality Kleszcow prepared 108 ha. of industrial zones, and 40 ha. has already being sold to investors.

(2)-2 Supply Conditions

In Konin at present, there are no areas specified as industrial parks in the province. However, some municipalities, particularly those located in the area along Highway A2 are planning to establish industrial parks by creating adequately sized areas as industrial zones.

For example, Municipality Stare Miasto has been made available for the creation of industrial zones with 60 ha. and a further 25 ha. for additional space for case of expansion. Two foreign direct investors have already made decisions to locate their facility in this area; a corrugated cardboard manufacturer and a fast-food chain restaurant.

HUTA ALIMINUM is also creating 123 ha. of space for an industrial zone next

to their factory site.

Both Slupca and Golina Municipality also have plans to create industrial zones. In Slupca, a total of 11 ha. of land is already ready to be sold along the highway No.2, and an additional 20 ha. is nearly ready to be sold. These two areas are located between highway No.2 and the railroad track, which is 5 km away from the city center. Water drainage and treatment are already available in these two areas, however, supplies of electricity are only available to propsective investors upon request. The city is also planning to prepare some acreage of land near the exit of the A-2 highway. But this land acquisition plan is not well advanced at this time.

In Golina, two locations are available for industrial zones, 2.5 ha. within 3 km of the city center and 6 ha. 4 km east of the city. The city is also planning to prepare large scale industrial parks near to the exit of the A-2 highway. However, some parts of the site are located within the nature conservation area along the Warta River. Further the city is having trouble with farmers with regard to acquisition of land since some parts of the planned site are classified as class 3 land.

(3) Proposed Reasons

1) Inviting foreign direct investment to Konin will be considered as major tools for the revitalization of economic activities.

2) The project is proposed in that Konin has abundant availability of land spaces, energy sources particularly electricity, human resources, and raw material supplies to easily meet the demands of foreign direct investors.

3) International Highway A-2 runs through the center of the province, which makes allows high mobility and accessibility to other regions.

2. Project Purpose

The project is proposed to attract foreign direct investors to Konin to contribute to the growth of economy.

3. Output of the Project

(1) Carry out feasibility study for the project
(2) Select space for construction sites
(3) To acquire land and make zoning and start construction
(4) Develop selected areas of the construction sites
(5) Develop the necessary infrastructure
(6) Prepare sales promotion kit, brochures and pamphlets
(7) Start sales promotion

4. Project Description

4.1 Total development area

A total of 340 ha. (consisting of 3 sites of 70 ha. each, and 123 ha. which is available on the HUTA site) is proposed in this project. The 3 sites totalling approximately 200 ha (exclusing HUTA) is available as industrial zones. 20 ha. of this (approximately 7 ha. per site) will be kept as auxiliary spaces for preparation of infrastructure including roads and loading/unloading zones, water reservoirs, electricity transformer substations, etc.

4-2. Location

Four locations are proposed as candidates for this project. All are located along International Highway A-2, except the one located near HUTA, where existing exits are located and, therefore, there will be ease of access to and from the proposed sites. (Please refer to Figure PLD.3-2 in the last part of this section.)

(1) Site A

Approximately 4.5 km south of Slupca city, where both the A-2 and national road No. 466 intersect. The total size of this area has not been ascertained since land acquisition has not been completed yet by Slupca Municipality. However, the size of this area will be approximately 60 ha.

(2) Site B

Approximately 7 km south of Golina city, where both the A-2 and national road No. 467 intersect. The total size of this area is expected to be up to 100 ha.

(3) Site C

Approximately 5 km south of Konin city, where both the A-2 and National highway No. 25 intersect. The site is located in Stare Miasto Municipality, near to the terminal point of the A-2 highway. The total size of the area will be approximately 60 ha. In this site, two foreign investors have already decided to invest, one is a corrugated cardboard manufacturer and the other a fast food chain restaurant.

(4) Site D

123 ha. of vacant site owned by HUTA ALUMINIUM which is located approximately 4 km away from the city center of Konin. The company is expecting to attract foreign heavy industry investors to the site. (Please refer to Figure PLD-3 in the last part of this section.)

4-3. Organization of operating body

A partnership company is to be organized to operate in this project. The partnership consists of municipality, who holds most of the land in the planned area, and from initial investors such as major existing companies in Konin, namely KWB KONIN, HUTA ALUMINUM KONIN, KWB ADAMOW, and FUGO.

Those companies can not only be initial investors, but are able to be general contractors for the construction of the industrial parks upon new investment was made by investors in the proposed area. Ideally joining local banks as initial investors as partners is highly recommended for not only initial investors but have possibility to open account from newly invested companies in this industrial zones.

The staff and organization of the partnership company and its functions are described as follows;

(1) Project Manager (1) --- Responsible for the overall management of the project from the initial stage to completion of the project, including the development time period.
(2) Financial Manager (1) --- The chief financial coordinator at each project

site. His functions include managing incoming capital and outgoing expenses of the project.

(3) Accountant (1) --- Act at each site as subordinates of the Financial Manager and manages cash flow and keeps financial records. A person who hold a certified public accountant qualification is most desired in this position.

(4) Architect (2) --- To act as architect and designer by making blue prints and drawing actual lines for layout of the total construction area.

(5) Sales personnel (1) --- Responsible for sales promotion at the site.

(6) Internal affairs staff (2) --- To take care of all daily incidental tasks which occur at the site including telephone answering and documentation activities.

(Note: Number in the parenthesis indicates the number of staff and personnel)

4-4. Implementation schedule

The implementation schedule shown below indicates the time periods involved in the cases of Slupca and Golina, from the initial feasibility study stage to the end of construction at each site. However, in the cases of Site C in Stare Miasto and Site D at HUTA ALUMINUM, the sites have already being selected and most land has already been acquired, and is owned by Konin Municipality and Stare Miasto Municipality and HUTA. The entire implementation schedule in the cases of Site C and Site D will, therefore, be shortened by up to one fourth.

Table PLD-4.2 Implementation Schedule of Intensive Industrial Zone

Schedule (Month) / Working Item	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46
(Industrial Zone)																							
1. Feasibility Study																							
2. Site selection																							
3. land acquisition																							
4. Land development																							
5. Geological survey																							
6. Zoning																							
7. Total design																							
8. Construction																							
Schedule (Month)	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46

4-5. Estimated capital requirement

Again the estimated capital requirements shown below indicates the time periods involved in the cases of Slupca and Golina, from the initial feasibility study stage to the project completion stage at each site. However, in the cases of Site C in Stare Miasto and Site D at HUTA ALUMINUM, the sites have already being selected and most land has already been acquired, and is owned by Konin Municipality and Stare Miasto Municipality and HUTA, therefore, both land acquisition and site selection cost should be deducted from the total cost.

Table PLD-4.3 Estimated Capital Requirements
(US$,000)

Cost of Item	Required Land (ha.)	Cost
A. Feasibility Study	-	15
B. Site Selection	-	10
C. Geological Survey	-	20
D. Land Acquisition*1	340	6,800
E. Land Development	-	20
F. Layout & Design	-	10
G. Construction*2	-	200
H. Land acquisition for Infrastructure	20	6
I. Preparation of Infrastructure*3		400
J. Preparation of Sales Kit		20
K. Sales Promotions including manpower cost*4		20
L. Others*5	-	708
Total	**360**	**8,229**

Note 1: *1 Costs for land acquisition per ha. is estimated and calculated as $ 20,000.
*2 Includes building materials, construction equipment, manpower cost. Construction works are mostly obligated to the investors to the site and the work for partnership company invests only for basic construction such as fencing and laying the foundation of the site.
*3 Preparation works are mostly obligated to the investors to the site and the work for partnership company invests only for basic preparation such preparing inner roads to access road.
*4 Includes public relations promotion, travel cost, and manpower cost.
*5 Miscellaneous cost is calculated as 1 % of above total costs from A to K.

5. Implementation Body and Financing Source

5.1 Implementation Body

Organize joint venture type of partnership company consisting of those municipalities who own the planned site, and existing major companies in Konin

namely KWB KONIN, HUTA ALUMINUM KONIN, KWB ADAMOW, and FUGO.

5.2 Financial source

Land owners, in cases where the land was owned by municipality, are to supply lands and automatically become shareholders equivalent to the amount of land they supply. Other partners share the finance. 30 % of total initial investment will be made by the aforementioned existing industries with the remaining 70% being financed by the prospective partner banks. Since the cost of land is not worth too much as collateral, a larger proportion of the original investment cost from the initial investors is highly recommended. Upon investment being made by the investors to the site, they are obligated to prepare their zoned industrial site with their own expenses. That includes preparation of the land, construction of the buildings, and pulling water and gas conduits from the root lines.

6. Activities

(1) Carry out feasibility study for the project

First, to carry out the feasibility study by investigating the latent needs for demand of industrial zones specifically by referring to existing industrial zones in the neighboring provinces. The content of the study should include necessary land area, required average space of a zone unit, necessary infrastructure to develop, total cost for development, construction period, necessary activity for sales promotion, and other activities.

(2) Select space for construction sites

(1) To select the prospective sites and negotiate with landowners for acquisition of land.

(2) To invite prospective investors, landowners, banks, and other institutional investors to fund raise for the project and also to raise funds for implementation of the project.

(3) To acquire land and make zoning

1) To design zoning of the site and draw up a blueprint.

2) The partnership company is not wholly obligated to develop entire zone, up to a ready-to-move-in stage, but limited to making zonings of the total site. It is necessary to enclose the entire area with wire fences.
3) It is important to note that basic rules must be made on the area, such as height of the land from the surrounding area, height of the factory buildings, the provision of common spaces, etc.

(4) Develop selected area of construction sites and start construction

Development of the area will be carried out by local construction companies as soon as the new investment has been made by the investors. Investors in the site have the whole responsibility for preparation of their area at their own expense.

(5) Preparation of necessary infrastructure

The necessary infrastructure must be prepared such as electricity, water, gas, roads for accessing major highways, railroad tracks and industrial waste treatment plants, and telecommunications systems, etc. However, these tasks for the partnership company are only limited to the preparation of root lines and conduit of the utility lines, construction of roads to the major access road, and drainage systems around the zones. Again, those who invested into the area should prepare their own facilities at their own expense upon entry to the zone.

(6) Start sales promotion

1) Prepare necessary sales kit --- Preparation of attractive sales kit such as brochures and pamphlets to catch the eye of prospective investors. It is highly desirable to enclose pictures of the site, the neighboring area, and the surrounding environment for recreation. Supplying basic information on the province including numbers of human resources available, minimum wages, demographic patterns, and land cost in the sales kit is also required. Further, it is important to emphasize various incentives such as tax benefits and available technologies from existing key industries (power generation, coal mining, and aluminum manufacturing) in the pamphlets.
2) Establish a small office building at the site as a method of sales promotion.
3) Send out catalogues and pamphlets by direct mail to prospective investors worldwide.
4) Make trips to neighboring countries and hold investment seminars for the

promotion of the newly developed industrial zones.

7. Expected Benefits of the Project

7.1 Direct Benefits

(1) Foreign investment will increase in Konin.
(2) Economic activities will be revitalized.
(3) Existing industries will gain opportunities for becoming supporting industries for those companies newly investing in the industry zones.
(4) Employment in Konin will increase.
(5) Opportunities for expansion of markets will be given to building construction companies and material manufacturers and suppliers of the province.

7.2 Indirect Benefits

(1) Image of the province will increase.
(2) Labor will gradually shift from agriculture to the industry sector.
(3) Production volume of building and construction material in Konin will increase.
(4) Competition among building material manufacturers and suppliers will increase in the province and will give strong incentives to producing better quality products.
(5) Creation and expansion of employment in construction and building material manufacturers and suppliers will increase.

8. Weaknesses of the Project

(1) Competition within the country is high.
(2) Prospective foreign investors are not keeping their eyes on Konin.
(3) Only a limited number of municipalities are taking initiatives for the promotion of such projects.

Figure PLD-4.1 PROPOSED SITE OF INDUSTRIAL PARKS FOR GENERAL USE (SITE A AND B)

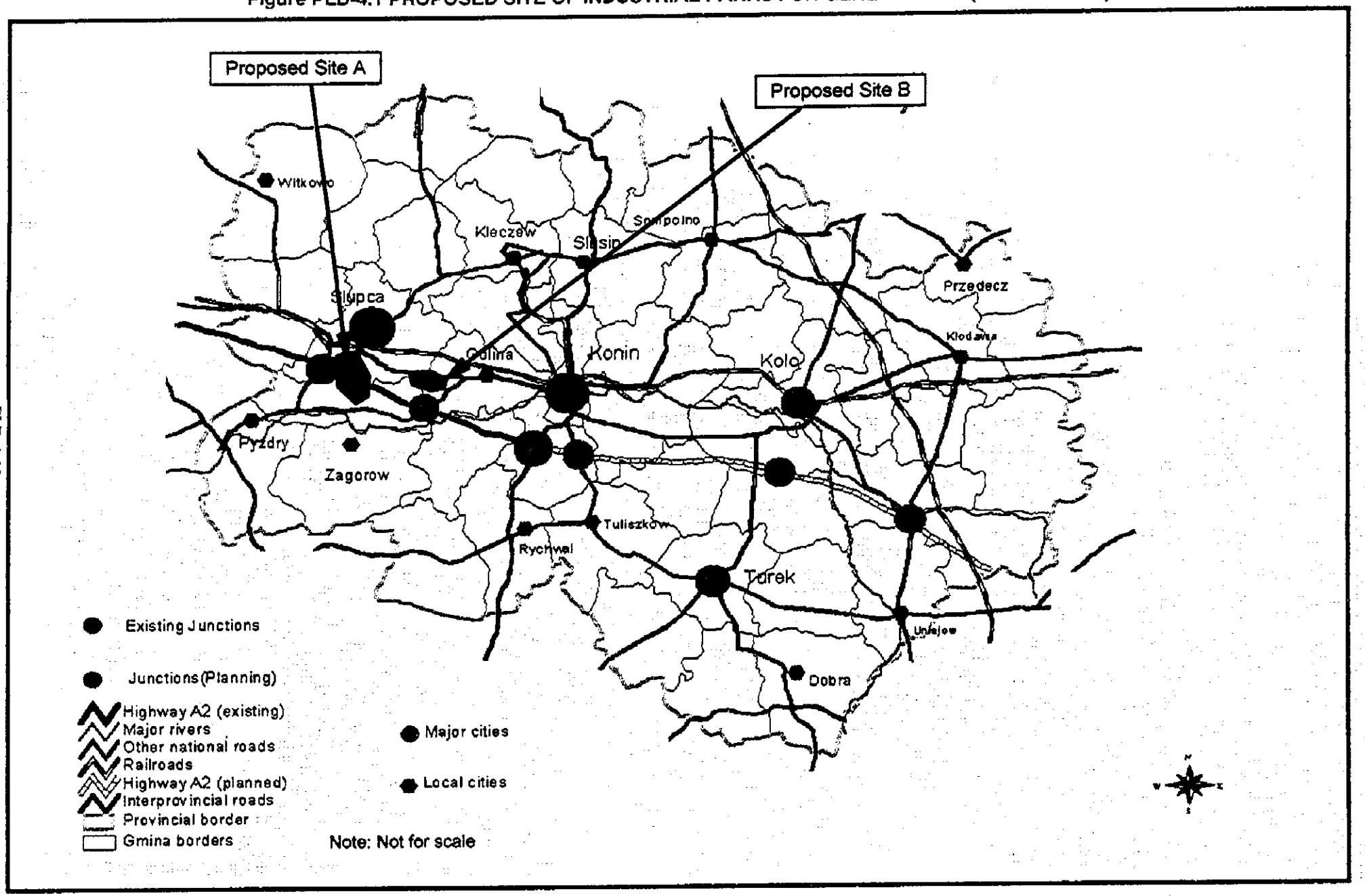

Figure PLD-4.2 PROPOSED SITE OF INDUSTRIAL PARKS FOR GENERAL USE (SITE C)

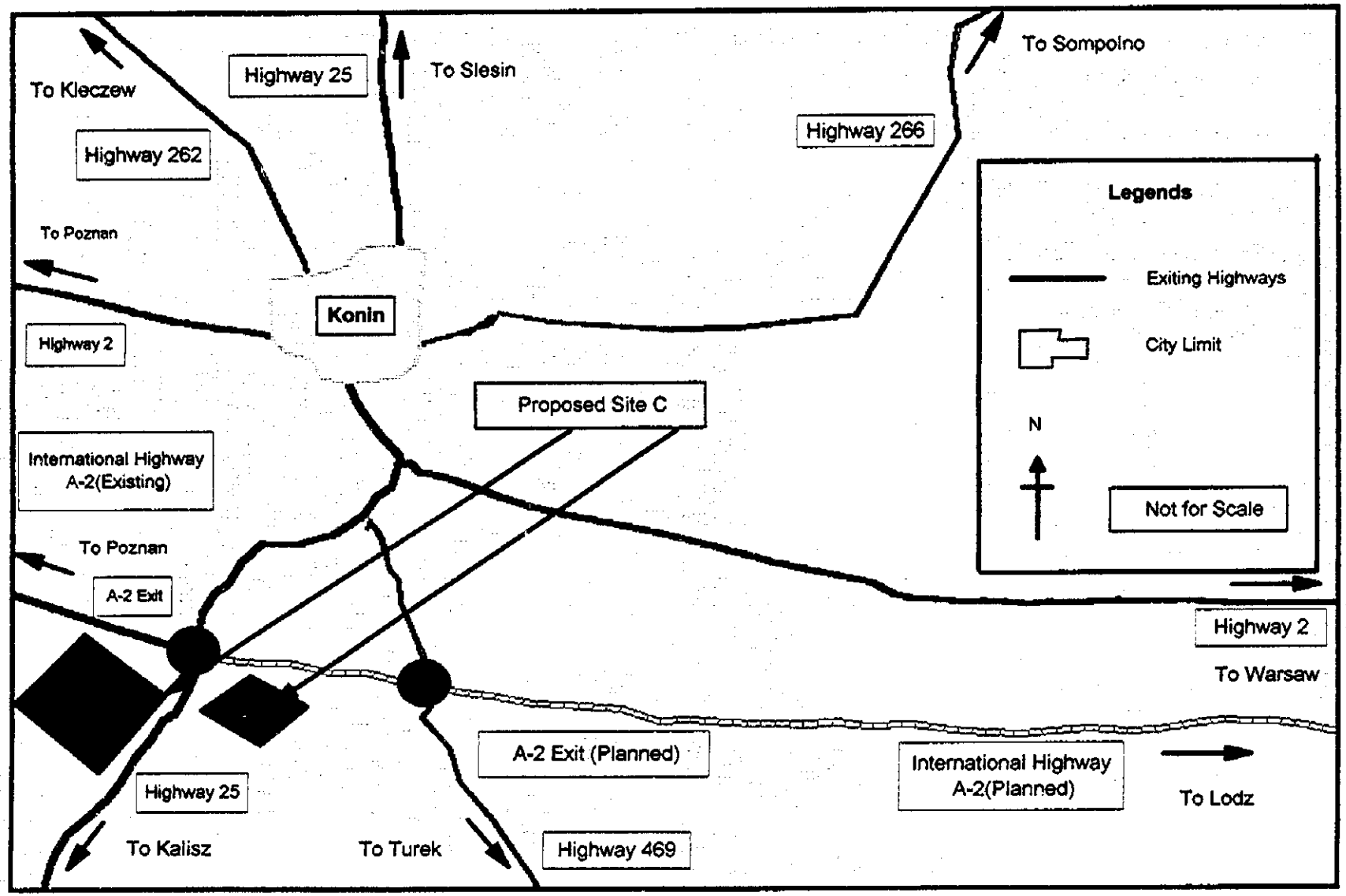

Figure PLD-4.3 PROPOSED SITE OF INDUSTRIAL PARKS FOR GENERAL USE (SITE D)

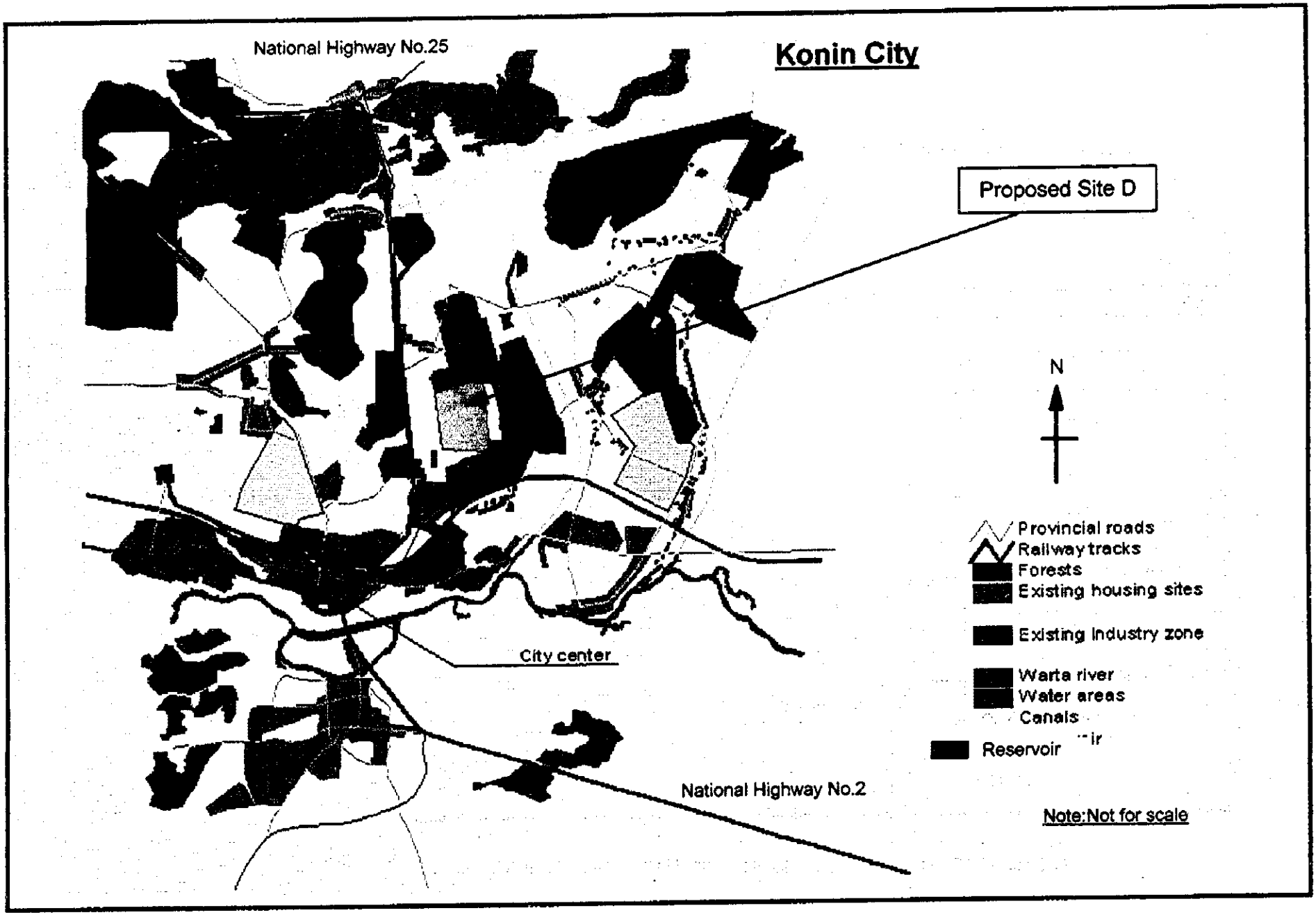

Table PLD-4.4 PDM: CONSTRUCTION OF INDUSTRIAL PARKS FOR GENERAL USE (LD-13)

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal Infrastructure in Konin is improved.	- Number and amount of foreign direct investors in Konin.	- Periodical survey	
Project Purpose The project is proposed to turn investors' eyes to Konin to contribute to the growth of economy.	- Economic indicators in Konin.		
Output 1. Carry out feasibility study for the project 2. Select space for construction sites 3. To acquire land and make zoning and start construction 4. Develop selected area of construction sites 5. Prepare necessary infrastructure 6. Prepare sales kit, brochures and pamphlet 7. Start sale promotion	1-1. Result of feasibility study. 2-1. Availability of the spaces.	1. Carry out the study. 2. Land use plan for industrial zones.	
Activities 1-1. To carry out the feasibility study by investigating the latent needs. 2-1. To select the prospective sites and negotiate for acquisition of lands. 2-2. To invite prospective investors, land owners, banks, and others. 3-1. To design for zoning of the site and draw blueprint. 3-2. The partnership company is not wholly obligated to develop entire zone. 3-3. It is important to make basic rules on the area. 4-1. To develop area by the local construction company. 5-1. To prepare necessary infrastructure. 6-1. To prepare necessary sales kit. 6-2. 2) Establish an small office building at the site for sales promotion. 6-3. To send out catalogues and pamphlets to the prospective investors. 6-4. To make trips, hold investment seminars for the promotion.	**Input** (US $,000) A. Feasibility Study 15 B. Site Selection 10 C. Geological Survey 20 D. Land Acquisition 6,800 E. Land Development 20 F. Layout and Design 10 G. Construction 200 H. Land Acquisition for Infrastructure 6 I. Preparation of Infrastructure 400 J. Preparation of Sales Kit 20 K. Sales Promotion including manpower cost 20 L. Others 708 **Total 8,229**		- Basic infrastructure should be prepared by Gmina and operating companies.

PMP-1 Establishment of Schools for Higher Education(MP-1)

1. Rationale of the Proposed Project

An increasing number of students in Poland have received higher education since 1990. The enrolment ratio of the higher educational institutions[1] (*Szkoly Wyzsze*) rapidly increased from only 13% in 1990 to over 25% in 1996. It is very possible that this enrolment ratio will continue to rise in the future, because the public understands that a higher educational background provides wider job opportunities and higher income. Many private centres for higher education have been established in the country recently to cope with this increasing demand.

The Konin province, however, provides very limited opportunities for getting higher education. Only two colleges (*kolegium*) provide a limited variety of higher education with the licentiate (*licencjat*) programs. There are no schools in the province offering the master studies (*studia magisterskie*). This weak higher education in the province causes very negative effects on the local society and economy. First, the local enterprises face difficulties in employing young and highly educated staff. Second, green field investors, including foreign investors, are discouraged from coming to the province for similar reasons. Third, the province has lost a number of talented local youth, who have gone to other provinces to receive higher education and have never returned. The shortage of highly-educated youth hinders the local economic activities from growing, and the undeveloped local economy, in turn, discourages the young master degree-holders from returning to their home province. This vicious circle should be cut immediately by expanding higher education in Konin.

In Konin province, 1280 students graduated from the general secondary schools (*licea ogolnoksztalcace*) in 1996, and 1840 students graduated from the technical and vocational secondary schools (*szkoly srednie techniczne i zawodowe*). Due to the lack of statistical data, we can not be sure of the number of graduates of these schools who continued to study at the higher educational institutions. If the national averages of enrolment ratios for the higher educational institutions apply to Konin as well, 883 graduates of the general secondary schools (69% of all) and

[1] The higher educational institutions include those schools that have either master studies or licentiate studies. Universities, polytechnics, academies, and several private schools have the master programs, while colleges and other private schools give the licentiate to the graduates.

534 graduates of the technical and vocational secondary schools (29% of all) might have continued their studies at the higher level. Thus, over 1400 young graduates in total are assumed to have entered higher educational institutions somewhere in the province. Moreover, if we assume that the capacity of the general secondary education of the province shall expand to reach the national average per population, the number of graduates who might have higher education shall increase to 1800. Hence, it is suggested that the demand for higher education could be around 1400 to 1800 students per year in Konin province. It could be feasible to establish a small-sized higher educational institution in the province, taking around five hundred students per year.

2. Project Purpose

The province has more graduates from the higher educational institutions

3. Output of the Project

(1) First Alternative: on the non-State initiatives

a) Project executing system is established.
b) A new private school of higher education (SHE) is established in the province.
c) This new school is upgraded and permitted to have the master program.
d) The new private school begins to supply graduates in sufficient numbers.

(2) Second Alternative: on the State initiatives

a) Project executing system is established.
b) The cooperation with the State university is strengthened via the new State SHE
c) The State university establishes its branch school in the province.
d) The new branch school supplies graduates in sufficient numbers.

4. Project Description

This project could be implemented on either the non-State or the State initiative. The main features of the two alternatives are described as follows:

4.1 First alternative: non-state initiatives

The project on non-State initiatives intends to establish a new private School of Higher Education (*Wyzsza Szkola*, here after SHE) to issue the title of licentiate, and then to upgrade this SHE to the level that can confer a master degree upon its graduates. At first, the executing body of the project is established by the two existing private schools. Then, a new private SHE is established in Konin with the assistance of the existing private SHEs in other provinces. Finally, this new private SHE in Konin is upgraded to the level that is permitted to have master studies (Figure PMP-1-1).

4.1.1 Preconditions

It is more feasible to establish a new private SHE on the basis of the existing private educational institutions rather than to establish an entirely new school from the beginning. The province has several private post-secondary schools (*szkolnictwo policealne*), which provide practical vocational education for students. The existing facilities of these schools, including their buildings and teaching staff, could be utilized to establish the new private SHE. Hence, one of the preconditions of this project is that at least one post-secondary school in the province will participate. In fact, one director of the existing private post-secondary school in Konin city has already shown keen interest to the Study Team.

In order to meet the requirements to establish a SHE, assistance from the existing private SHEs in other provinces is very necessary. One of the conditions for the establishment of new SHEs is to employ at least four senior academic teachers with the professional title of either professor or doctor habilitated (*habilitowany*). It is important to ask the existing private SHEs to recommend candidates for these senior teaching posts, or dispatch their staff to the new private SHE, because the province has a very limited number of suitable teachers. Furthermore, the courses of studies should include at least six semesters of teaching classes and at least 15 weeks of practical studies. Their curricula should be properly designed to meet the requirement of the SHE. The assistance from the existing private SHEs is, again, very necessary for the new SHE to create the appropriate course curricula.

Without the accommodating assistance and the deep involvement of the existing private SHEs in other provinces, it is very difficult to realize this project. Therefore, the second precondition is that at least one existing private SHE in the other provinces finds it an attractive proposition. In fact, one director of the existing SHE in the neighboring Lodz province has shown an interest. He mentioned that his school could provide academic teachers as well as teaching materials to a new private SHE in Konin province.

It is suggested that this project could, preferably, be implemented by both the existing post-secondary school in the Konin province and the existing private SHE in the other province. The executive body for this project, hence, should be composed of the staff of the two existing private schools. The secretariat of these schools, particularly that of the post-secondary school in Konin, would provide secretarial services for the project.

4.1.2 First phase; the establishment of the new private SHE

The operational know-how and senior academic teachers are expected to be provided by the interested private SHE in the other province. In order to realize the project, it is also necessary to attract private investors, or founders, to the new SHE. The initial capital will be used mainly to purchase teaching equipment, including computers and other office machinery, reference books, and so on. The building should also be purchased, if necessary.

Approximately, one million zlotys will be needed to purchase the teaching materials at the beginning. Furthermore, the school will need 200,000 zlotys every year in order to renew or replace materials[2]. If we buy the building for the new SHE, the project needs an additional several million zlotys. The building, however, can be rented in Konin city, where there are several empty, suitable premises.

The investor, or the founders, to this project could be any body. Any natural or legal person may establish a private SHE upon a permit granted by the Ministry

[2] This cost is estimated by one director of the post-secondary school in Konin city.

of National Education[3]. There is a possibility that some firms or natural persons outside the province might be attracted by the project and decide to invest. The project, hence, should be widely advertised in various appropriate types of media. The executive body should actively contact potential founders and invite them to the province, if necessary. It is also possible that local firms would make a significant contribution as founders. In fact, some large firms in the province made large donations to the local educational authority a few years ago. We could expect that these local firms also become interested in investing in the new SHE in their province. The executive body should inform these local firms about the project and seek their contribution.

The fields and specialization of study at the school should be decided on the local market needs. Management (*zarzadzanie*), marketing, and information (*informatyka*) studies should be placed at the top of the list, because local firms have expressed their increasing demand for graduates in these subjects. In fact, many of the private SHEs in other provinces have established similar courses, including the SHE in Lodz province which has already expressed an interest in this project.

Considering the demand for higher education in Konin province, the appropriate number of students in the new private SHE is estimated to be around five hundred per year[4]. It is, however, appropriate to start the school with a smaller number of students and to expand the capacity gradually.

4.1.3 Second phase; upgrading to the SHE with the master program

It is no longer possible to upgrade the SHE to the higher level, to implement the master studies (*studia magisterskie*), in a short period. It is essential that the school itself has accumulated the teaching experience before it is upgraded. In the case of the SHE in Lodz, it took four years to be permitted to start the master studies. Now the country has 135 private SHEs in total, many of which were established between 1992 and 1993, but only 20 schools had been permitted to have the master programs by February 1998.

[3] Article 10Act on Schools of Higher Vocational Education, of 26 June 1997.

[4] This number of students is estimated by one director of the post-secondary school in Konin city.

Apart from the accumulation of experience, there are several conditions that the SHEs with master studies should meet. First, the SHE should employ at least eight senior academic teachers with the title of professor or doctor habilitated. Second, the duration of the courses should be increased to five years just like the other master programs in the State universities. The curriculum should also be changed to meet the required standards. Furthermore, the teaching facilities, such as the library, should be expanded and improved to meet the specific requirements. Additional investment is needed to meet these conditions.

From the experience of other SHEs which have successfully started master studies, it is evident that their exchange programs with foreign academic institutions have surely helped the SHEs improve their quality of education. Many of the existing SHEs, in fact, have some kind of exchange program with foreign universities or other academic institutions, many of which are in western Europe.

In the case of one SHE in Lodz, the executive staff have actively expanded their exchange programs with western European universities, particularly those in France and Holland. Even before being permitted to start the master studies by the Polish government, the school has already started the M.B.A. program with the French academic institution. The program consists of three semesters, in which the students take the first two semesters in Lodz then go to Paris for the last semester. The M.B.A. degree is given to the graduates from that French institution. In the process of preparing this exchange program, this SHE in Lodz received heavy assistance from the French institution to obtain the modern teaching know-how of management studies in western Europe. Several French teachers come to Lodz to teach in the first two semesters, so the Polish teachers can also receive some practical advice at the same time. This SHE in Lodz has also started an exchange program with a Dutch university, and some of their Polish students are now on exchange, studying in Holland on scholarships from the Dutch government. Exchange programs, like these, with foreign academic institutions are very attractive to students, and this is one reason that this SHE in Lodz has attracted plenty of students in this very competitive field[5].

[5] Lodz currently has 9 private SHEs, and most of them have similar programs such as management, marketing, banking, finance, computer studies and so on. The city also has fully-fledged State academic institutions, including the University of Lodz.

It is, therefore, suggested that the new private SHE in Konin should also establish institutional relationships with foreign universities and start some kind of exchange programs. The data base of existing SHEs in other provinces might be useful for the new private SHE in Konin to make initial contacts with foreign academic institutions.

4.2 Second alternative: State Initiatives

The project, on State initiatives, intends to establish a branch school (*filia*) of the existing State universities in Konin province (Figure PMP-1-2)[6]. Even now, there exist some kinds of divisions of the State universities in the province, which are called "consultation point (*punkt konsultacyjny*)"[7]. The branch school is, however, different from the consultation point, because it employs full-time teachers and the students only attend to receive their master degrees. The consultation point, on the other hand, has part-time teachers who usually come from the mother university to teach at the weekend. The students are not able to receive the title without attending several semesters in the mother university.

4.2.1 Preconditions

There is no doubt that the establishment of a branch school cannot be implemented without the heavy involvement of the existing State universities. One of the preconditions of this project is that at least one of the State universities should be attracted to the idea of opening its branch school in the province. The provincial and municipal authorities should establish the executive body for the project, and strengthen their relationship with the State universities.

This project, however, has no possibility of being implemented at the moment, due to the act on higher education in force since 1990. This strictly prohibits State universities from establishing any further branch schools in the country. However, the act is due to be replaced by a new act on higher education at the beginning of 1999, possibly allowing the universities to open additional branch

[6] University of Adam Mickievicz in Poznan, for instance, has its branch school in the Kalisz province.

[7] University of Koperniks in Torun, Academy of Economics in Poznan and Polytechnic in Lodz have their consultation points in the Konin province.

schools. The draft act would be finalized in May 1998 by the Ministry of National Education, then presented to Parliament for discussion One should carefully examine how the new act is going to be discussed in Parliament. The very important precondition of this project is, therefore, that the current act on higher education shall be replaced by a new act enabling the State universities to open their additional branch schools.

4.2.2 First phase; cooperation with the State universities through the new State SHE

In order to attract the existing State universities to this project, the relationship between the universities and the local authorities must be strengthened. The establishment of the new State SHE (School of Higher Education, *Wyzsza Szkola*) in Konin city could be a good opportunity to achieve this.

As previously mentioned, 135 private SHEs have been established already in the country, but not a single State SHE has been made. Under the current act on higher education, it is not possible for the State authority to establish SHEs. In June 1997, however, the new act on Schools of Higher Vocational Education was introduced, and it became possible for the government to establish State SHEs. At this moment, the Ministry of National Education plans to open around 10 new State SHEs in the country, and Konin province would possibly have one in October 1998.

The new State SHE in Konin is expected to have a variety of courses, including foreign languages, administration study, economics, environmental study and so on. Some of the academic teachers would be dispatched from the State universities in the neighboring provinces. Moreover, these State universities would provide technical assistance to the new State SHE to prepare the curriculum. The establishment of the new State SHE might provide good opportunities to strengthen the institutional relationship between the State universities and the local authorities. This will help the local authorities to attract the State universities to the idea to open their own branch schools in Konin.

The possibility to upgrade the new SHE to the higher level with master studies is rather limited, due to the director of the Ministry of National Education. The

director considers that the government should provide various levels of higher education. Some types of profession do not require highly-sophisticated theoretical training, such as is found in university master studies. Practically-oriented training at the high level should be more suitable for these types of profession. The role of the State SHEs is supposed to provide students with practically-oriented and relatively-sophisticated training opportunities. Students of the State SHEs who want to continue studies at the higher level are able to join the interim stages of master programs of the State universities. Hence, the director concluded that it is not necessary to upgrade the State SHE to the higher level.

4.2.3 Second phase, the establishment of a branch school of the State university

The provincial authority and the municipal authority of Konin city should cooperate together to urge the State universities to open their branch school (*filia*) in Konin. At first, these local authorities should make a very attractive proposal of the project, and present it to the board of the State universities. It is very important that the board members become really interested in the project. The proposal should describe why the province needs the branch school, what types of courses are required, and how many students would possibly enter the school.

As the branch school provides practically the same level of higher education as the mother university, the required academic conditions of the school are high. The branch school has to employ at least eight senior academic teachers with the title of professor or doctor habilitated. The curriculum should be appropriately designed and the teaching facilities, such as the library, must be prepared to meet the specific standards. The State university is solely responsible for these academic requirements, in principle. The local authorities, however, could also make some contribution from their experience in managing the State SHE with the State universities.

Furthermore, the local authorities will have to provide the building for the branch school. According to the director of the Ministry of National Education, the ministry does not have any financial resources for procuring buildings for State universities' branch schools. The local authorities should,

therefore, bear the cost of the procurement. Several million zlotys would be needed to purchase a building, but the local authorities may already have properties available. An unoccupied public building, for instance, could be renovated and used for the branch school.

5. Implementation Body and Financing Sources

5.1 First alternative: the non-state initiatives

(1) Implementation body

a) A private post-secondary school in the Konin province
b) A private SHE in a neighboring province

(2) Financial sources

a) Private investors / founders

5.2 Second alternative: the state initiatives

(1) Implementation body

a) The provincial authority
b) The municipal authority
c) The existing State university

(2) Financial sources

a) The State budget
b) The provincial / municipal budget or assets

6. Activities

6.1 First alternative: non state initiatives

1-1 Determine the executing body.

1-2 Formulate an annual plan for the project.

2-1 Obtain the academic teachers from the existing private SHE in the other province.

2-2 Obtain the course curricula and operating know-how from the existing SHE.

2-3 Attract private investors / founders to provide the initial capital of the project.

2-4 Purchase the new equipment and teaching materials suitable for the SHE.

3-1 Negotiate to introduce exchange programs with western European universities.

3-2 Expand the academic staff and improve teaching methods.

3-3 Purchase the new equipment and teaching materials for the master program.

4-1 Improve the quality and quantity of academic services.

4-2 Improve the quality and quantity of non-academic services.

6.2 Second alternative: state initiatives

1-1 Determine the executing body.

1-2 Formulate an annual plan for the project.

2-1 Obtain the academic teachers for the new SHE from the State university

2-2 Obtain the course curricula and operating know-how for the new SHE from the State university.

3-1 Provide the building for the branch school.

3-2 Obtain the academic teachers for the branch school from the State university

3-3 Obtain the course curricula and operating know-how for the branch school from the State university.

4-1 Improve the quality and quantity of academic services.

4-2 Improve the quality and quantity of non-academic services.

7. Expected Benefit of the Project

7.1 Direct benefit

It is expected that around five hundred students will graduate from the new higher educational institution every year. Furthermore, the new institution could employ around 100 academic and 25 non-academic staff members.

7.2 Indirect benefit

When the province has more graduates from the higher educational institutions, the following indirect benefits are expected. First, the local enterprises could find it easier to employ young and talented staff with the higher educational background. These highly-educated young staff could make their operation more efficient, and make their service or products more competitive in the market. Second, the province could have more new private businesses, established by the graduates of the higher educational institution. Third, more, possibly foreign, investors may become attracted to the province because they can easily employ young highly-educated staff locally.

8. Weakness of the Project

One of the concerns of this project is caused by the fact that the general educational level of the provincial people is low. Poorly-educated parents in rural areas, in particular, might not consider higher education as important, so they will show little interest in sending their children to the higher educational institutions. This situation, however, could have changed recently. It is observed that more and more young students themselves are now willing to take higher education with or without the consent of their parents.

Moreover, some people pointed out that the new higher educational institution might have a problem in attracting students because there are several famous and large State universities in the neighboring provinces. The existence of these universities, however, could not be considered a serious constraint on the project in the light of the success of many private SHEs in these provinces attracting large numbers of students. The uniqueness of the programs and the modern teaching methods could be important factors in attracting a number of students.

Project Design Matrix (PDM) for PMP-1 ESTABLISHMENT OF THE SCHOOLS FOR HIGHER EDUCATION

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal The general educational level of the provincial people is raised.	General educational level of the province	National educational statistics	The periodical educational policy remains unchanged.
Project Purpose The province has more graduates from schools of Higher Education (SHE).	The ratio of graduates of the higher educational institutions	National educational statistics	Secondary & non-stationed education are also expanded and improved in the province.
Output First Alternative: 1. A new private SHE is established. 2. This new private SHE is upgraded and permitted to the higher level. 3. The SHE supplies sufficient numbers of well qualified graduates. Second Alternative: 1. The cooperation with the State university is strengthened. 2. The State university establishes a branch school. 3. The new branch school supplies sufficient numbers of well qualified graduates.	Number of students graduated from higher education institutions annually	National educational statistics	Many of these graduates remain in the province.
Activities First Alternative: 1. Determine the executing body. 2. Obtain the teachers and other assistance from existing private SHE. 3. Attract private investors to provide the initial capital of the project. 4. Purchase the new equipment and teaching materials 5. Introduce exchange programs with western European universities. 6. Improve the quality and quantity of the services to the students. Second alternative: 1. Determine the executing body. 2. Obtain the teachers and other assistance for the new SHE in Konin from State universities. 3. Provide the building for the branch school. 4. Obtain the teachers and other assistance from State universities. 5. Improve the quality and quantity of the services to the students.	**Input** First alternative 1) 100 academic staff members 25 non academic employees 2) US$ 300,000 for the initial investment for the equipment and teaching materials 3) Building to be rented for the school Second alternative 1) 100 academic staff members 25 non academic employees 2) Building to be rented or purchased for the school		Students are attracted to the new educational institution. First alternative only: Private investors are attracted to the province. **Pre-conditions** First alternative: At least 1 post 2nd day school is interested in the project. At least one existing SHE is interested in the project. Second alternative: At least one State university is interested in the project. The action on higher education will be changed.

Chapter 3

INITIAL ENVIRONMENTAL EXAMINATION

Chapter 3 Initial Environmental Examination (IEE)

1. Environmental Control in Poland

1.1 Environmental Administration and Regulation

In Poland, the Ministry of Environmental Protection, Natural Resources and Forestry (MOSZNIL) have general jurisdiction over environmental administration. While the MOSZNIL is primarily responsible for developing and drafting national environmental policy, environmental standards, laws and regulations, day-to-day environmental administration is largely delegated to the State Inspectorate of Environmental Protection (10 throughout the country) and the Department of Environmental Protection in each province. The Department of Environmental Protection is authorized to directly supervise factories within its jurisdiction by specifying the allowable discharge of pollutants to each factory. In fact, it has extensive power and authority over environmental administration as a whole including management of natural resources (except for the more important resources such as brown coal, which are under the control of the MOSZNIL) and management of natural reserves.

Poland is now making determined efforts to develop a legal system related to environment protection, partly motivated by the prospect of participation in the EU. The Environmental Protection Act was the first national law enacted in 1980, but it essentially states the spirit of the law. It has then been followed by the establishment of more specific standards and penalties. For instance, air pollution standards introduced in February 1990 specify allowable discharge levels of SO2, NO2 and dust particles. Note that the standards contain transitional ones for existing facilities that are applied up to the end of 1997, and also new ones that become applicable in January 1998. In Konin Province, the thermal power plant (ZE PAK) burning brown coal will not be able to satisfy the new standards for most of its facilities, although it has been making investment in pollution control since 1990. As a result, it will have to pay penalties and at the same time will be required to reduce the power generation used in burning brown coal. (In fact, the situation has led to a rising concern that the province's key industries, power generation and brown coal, will deteriorate under the new environmental regulation, and seems to have motivated the province to initiate the request for this JICA Study).

1.2 Environmental Impact Assessment

Environmental Impact Assessment (EIA) for certain projects is required under the Environmental Protection Act of 1980 and the 1984 Land Use Planning Act. Since then, further regulations about EIAs have been prepared. Nowadays, the EIA process is a part of the integrated approval process for certain types of projects contained on a list appended to the law, and non-listed projects which may cause harm to the environment, and its requirements are spelled out in the application procedure.

The Decree of MOSZNIL, May 13, 1995 is the latest and most comprehensive on EIA. It cites project types which require EIA, but regulatory requirements and standards on each assessment criterion is regulated by different enactments (air, water, soil noise and so on). All requirements and standards are detailed in two books which are commonly called " yellow books".

Before implementing the projects which require EIA, according to the Decree of MOSZNIL, May 13 of 1995, all investors have to prepare an EIA report for the Department of Environment Protection of each province and get approval by the Authorities. Generally speaking, preparation of EIA reports have been done by university staff or academic institutions on trust by investors.

2. Initial Environmental Examination (IEE) in the Study

2.1 Objective of the IEE

Under this JICA Study, the Initial Environmental Examination (IEE) will be conducted for 21 projects selected as priority projects. The IEE's objectives are twofold. First of all, it determines whether a project will require Environmental Impact Assessment (EIA) , and if required, the IEE specifies the nature and scope of the EIA. Secondly, the IEE is used to review a project that does not require EIA but still needs some degree of environmental consideration and to examine possible measures to mitigate its environmental impact. Thus, the IEE serves as a precursor for EIA and is designed to assess the environmental impact of a project on the basis of information available at that stage.

2.2 Methodology of the IEE

Figure IEE-1 shows the general flow of the IEE planned under the Study. It is important to realize that the need for the IEE (and EIA) must be determined on the basis of qualitative analysis using each project's description and site description (SD), rather than by quantitative standards. The general procedures and criteria at each stage are described as follows.

(1) Preliminary screening

Each priority project will be evaluated by the Department of Environmental Protection of Konin Province and the Study Team who will decide whether the project requires environmental consideration. A detailed report has been prepared to describe the nature and scope of each project and is used as the basis of preliminary screening (A Detailed Project Study (PDS) of "Project Report" is used for this screening).

(2) Scoping

For each of the projects selected for the IEE in the preliminary screening process, site description (SD) will be prepared together with a checklist for IEE scoping. The scoping process is essentially an initial phase of the IEE and is designed to identify important environmental impacts from those expected from the project, followed by determination of focused areas or items for the EIA process. Under this Study, the projects will be classified into five groups according to their characteristics, namely Agriculture, Transport, Industry, Hot-spring and Groundwater, and Infrastructure Development projects, as most of projects are still at the conceptual stage. Each of them will be analyzed on the basis of a different checklist to identify the focused areas or items. The checklist scores each item according to four grades shown below. If any item is rated C or above, the project will be subject to the subsequent assessment stage. Generally, the larger the number of A,B and C scores, the more comprehensive the environmental study should be to clarify measures to mitigate the negative impact foreseen. The checklists are detailed at the end of the chapter.

Checklist scoring
A: Major environmental impacts are expected.

B. Some environmental impacts are expected.

C: Unknown.

D: No, or negligible, environmental impacts are expected.

Grouping of the projects for checklists

Agriculture: PAG-2 and PAG-4

Transport : PDT-1, PDT-2, PDT-3, and PLD-1

Industry : PKI-1, PKI-2, and PID-2

Hot-spring and Groundwater : PKI-3 and PTR-1

Infrastructure Development : PLD-2, PLD-3, and PLD-4

(3) Final screening

Projects that have been rated in the scoping process as D, no or negligible environmental impacts are expected, will be further evaluated to determine whether EIA is required under an existing applicable law or regulation in Poland. If, through this process, a negative environmental impact is then detected, EIA will be conducted.

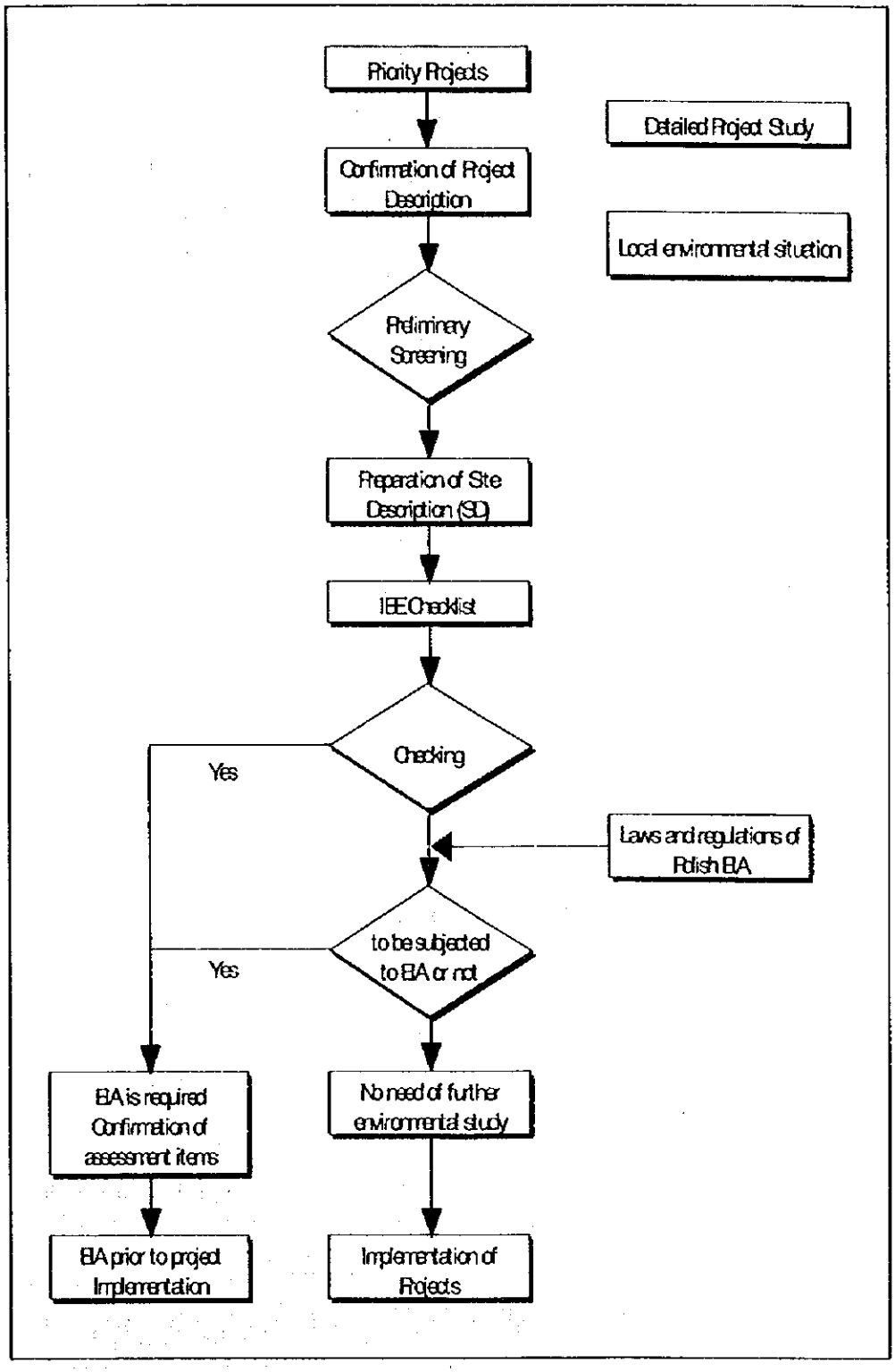

Figure IEE-1 Procedure of Initial Environmental Examination

3. Results of the IEE

3.1 Results of Preliminary Screening

After the discussion with the Department of Environmental Protection of Konin Province, it was decided to drop seven priority projects that do not require environmental analysis on account of their nature and extent from the IEE scoping process. They are considered to be program-like projects that are not accompanied by investment relating to physical construction (eg. institutional development, technical support, human development programs and so on):

- Strengthening of Agriculture Technologies in Konin (PAG-1)
- Promotion of group sales activities (PAG-3)
- Establishment of support systems for SMEs (PID-3)
- Establishment of a one-stop investment service center (PID-1)
- Establishment of a financing assistance scheme for new entrepreneurs(PID-4)
- Organization of "Economic Forum 2010"(PID-5)
- Establishment of schools for higher education (PMP-1)

*This last project will essentially utilize existing buildings, and the school curriculum will consist of non-engineering courses, such as business administration and computer and information processing, which will not involve any laboratory work.

3.2 Results of Second Screening (Scoping)

The IEE scoping was conducted for a total of 14 projects. The following project was evaluated as having no, or negligible, environmental impacts.

Promotion of agro-tourism (PAG-4)

This project will essentially use existing farms and their resources that are scattered throughout the area and is thus positioned as an extension of farmers' daily activities. While there are some house renovations involving physical construction, e.g., partial modification of a farm building to open a souvenir shop, they are not expected to cause any changes that will have an identifiable environmental impact. Vehicles carrying guests may result in some air pollution and noise and cause annoyance to local residents, but this is manageable as only one or two vehicles will come to each farm in the area on a holiday.

3.3 Results of Final Screening

From the final IEE screening process, a judgement was made that the other 13 projects required some EIA prior to implementation. Hereunder, there are mentioned some recommendations for the EIA stage of each of the projects.

(1) PAG-2 Establishment of Comprehensive irrigation management system

EIA is necessary especially on "groundwater" and contaminate water flow affecting down stream water use in all project sites and "flora and fauna" in some projected sites. According to the Decree of MOSZNIL, EIA is required for projects proposing underground water intakes with the capacity of 1.5 to 5 mill m3/year and surface water intakes with the capacity of 50m3/h or more. All of the projected sites require plenty of water with the lowest water requirement of 212.4m3/h being at Zagrow. All sites except Slesin are troubled with a lack of water resources not only for farming but also for drinking. Groundwater is supposed to be the major resource for irrigation, but it also supplies drinking water. EIA has therefore to stress impacts related to water use to drinking water, and also the effects on the groundwater table and salinization should be included in the EIA in the areas of Grabow and Sompolno.

(2) PKI-1 Development of aluminum down stream industries

EIA has to be implemented on each proposed site. The project consists of manufacturing six different aluminum-based products, namely a radiator, an aluminum foil, a foil lamination, an aluminum sheet, and two different types of aluminum construction materials. All projects are basically expected to use the aluminum sheet which has been produced at HUTA Aluminum on adjacent land, so the smelting process will not be involved in the proposed projects. The range of environmental items to be assessed is not as wide as required for an aluminum smelting work plant, however, items which might cause social conflict such as noise pollution, solid waste treatment, and transportation should be stressed. The criterion of each item in the EIA should be followed to the present monitoring code for HUTA Aluminum S.A.. Furthermore, in case the site will be formed into an industrial park of several aluminum related factories in the future,

resettlement will be the focal point even though now there is plenty of vacant land.

(3) PKI-2 Promotion of heat utilization industries

This project consists of three different types of business. All should have an EIA carried out prior to project implementation.

1) Construction of a cold warehouse for agricultural products

This project involves constructing a warehouse about 1,200m2 in size. Although it is relatively small in scale so the environmental impact will probably be kept to a minimum, EIA should nevertheless be conducted especially in the areas of noise and air quality from vehicles going in and out, and waste materials from the warehouse.

2) Construction of a Heat Industrial Park

This is still at the conceptual stage with project design (e.g. tenant companies in the industrial park) not yet being specified. According to the project concept, heat will be supplied by the power station through a heat pipe. Land use and some social impacts in the area should, therefore, be carefully assessed by the piping installation work for the project and also post-installation. Food processing industries are supposed to be the major tenants in the industrial park. In this case EIA is necessary from all aspects especially on water pollution and offensive odors.

3) Construction of a Greenhouse Park

This is also a project utilizing heat energy from a power station. Cultivation will be used through a flower pot or a rock-wool instead of ground soils to avoid the troubles caused by repeated cultivation. A water supply for plants is clearly foreseen in great quantities. EIA is necessary especially on groundwater and waste water issues, while other impacts including a disposal of plants and waste should also be clarified through EIA.

(4) PKI-3 Master Plan study for utilization of underground water from mines

The project is to study the possibility of utilization of underground water from mines which goes to rivers and streams at the moment. This study-

oriented project will require EIA, with emphasis placed on water related impacts, such as groundwater use, contaminate water flow and soil erosion. That is to say EIA is an integral part of the feasibility study for the project.

(5) PID-2 Construction of a Konin woodworking industrial park

EIA should concentrate on flora and fauna, noise (from both of factories and vehicles), water use, air pollution, and land use. However, the EIA study should also probe into anticipated increases in dust and waste of wood. In the plan, dust and waste will be re-utilized in the industrial park as materials, so EIA should be implemented based on this scope. Apart from EIA on the project, other long-term impacts on the natural environment should be judged separately for the wood resource utilization project.

(6) PDT-1 Construction of a distribution center for construction materials

This project involves the construction of a sort of trading center with small processing works such as cutting, shaping and weighing of sales materials. The sales materials are produced at other places (factories) and will be transported to the proposed trading center. The environmental items that should be stressed most in EIA are land use, traffic noise and possibly air pollution from traffic and dust on the site. As for social impacts, disturbance of local economic activities during construction should be also assessed because the site is located close to Konin Gmina, which is an industrial zone. In case of developing a larger area than projected, another land acquisition may necessitate resettlement.

(7) PDT-2 Construction of a service area for long distance truck drivers

This project consists of construction of international standard accommodation and a large space for a parking lot with a gasoline station. A number of forests, wetlands and other important environmental resources in terms of flora and fauna are located on and in the vicinity of the project site. The environmental items that should be stressed most in EIA, therefore, are flora and fauna, noise and air pollution. As far as soil and topographical conditions around the site are concerned, it was already confirmed as having a negligible impact on the environment by the new highway project which is under construction.

(8) PDT-3 Construction of a distribution center for fruit and vegetables

EIA should be done with almost the same scope as the one for a distribution center for construction materials project above although adverse environmental impacts will be much less because of the absence of any production (manufacturing) processes. However, the residue and waste of sales products and water use in the center should be paid attention to.

(9) PTR-1 Development of hot spring resources

As this project is still in the feasibility study stage, the details of the project in each potential site have not yet been defined. However, EIA should mostly concentrate on impact from salt contained water and groundwater. In Uniejow, which is one of the potential sites, a feasibility study has already been carried out. Expected environmental impact and benefits of using hot water was assessed in that study, but it concentrated on the emission from the existing boilers. The next assessment should concentrate on the utilization of hot spring water itself. Furthermore, the impact on degradation of water and flora and fauna should be dealt with in all project sites.

(10) PLD-1 Betterment of transportation infrastructure

This project consists of construction or rehabilitation of roads and bridges. A full environmental check through EIA is definitely required. This will include resettlement and land use, topographical change, soil erosion, air pollution, noise and vibration, and so on. Land use, flora and fauna, resettlement, soil erosion and any disturbance to local economy should, in particular, be examined in more detail. It should be also considered to choose an ideal design for minimizing the negative environmental impact at the planning stage.

(11) PLD-2 Supply of low cost housing

This project also requires a full scale EIA. The project site is planned to be in Konin Gmina, so resettlement, water use, waste treatment, traffic and land use are the most important environmental items and should be assessed very carefully. Especially during the construction stage, air pollution, noise, resettlement, disturbance to local economy can be

predicted because the site is adjacent to existing houses and close to a commercial area.

(12) PLD-3 Construction of a centralized waste treatment and disposal facility on the refilled land

A full scale environmental check through EIA is definitely required. Flora and fauna and groundwater are the most important environmental items, which should be covered in the EIA. The project site is part of the existing waste dumping site, so EIA should incorporate all the sites and surrounding area. It is also recommended to assess the impact of the waste treatment method to be adopted.

(13) PLD-4 Construction of an industrial park for general use

EIA will have to be implemented for this land development project. Scoping for the environmental items to be assessed, however, is not definite because tenants of the industrial zone have not yet been specified. EIA might, however, need to be carried out on the following set of environmental items: soil erosion, land degradation, water use, groundwater, water quality, flora and fauna, air pollution, noise, offensive odors, solid waste and so on.

A site description (SD) of each project and a checklist for project groups are detailed on the following pages:

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Lubotyn, Brzezie, Gmina Babiak (Orchard-181ha, Vegetables-46ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	8,300 inhabitants, mostly farmers.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Agriculture dominates its economy. Tourist industry is under developing.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Across the commune runs the railway trunk line linking Silesia and sea-port. Half the villages are provided with a water-supply service.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Flatland with slight undulations. Salt mine is running under the ground.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Large area of lakes can supply water, but water supply system for the highland area is a problem.
	Flora and fauna/Habitat (Scarce flora and fauna)	There is a nature sanctuary - an area of 49ha, protecting the service-tree station.
Environmental Pollution	Complaint (the present situation)	Drinking water from the wells is polluted.
	Countermeasures (Institutional, Compensation)	Pumping up water from deeper well.
	Other specific topics	

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Biesiekiery, Kurzjama, Besk Stary Gmina Grabow (Orchard-133ha, Vegetables-761ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Mostly farmers.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Agriculture. The commune specializes in onion production.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	90% of the commune's area is agricultural land. Most of the grounds require water.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flatland.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	No water resources in the area (there are only two small rivers).
	Flora and fauna/Habitat (Scarce flora and fauna)	No problems
Environmental Pollution	Complaint (the present situation)	Some water from wells contain salt.
	Countermeasures (Institutional, Compensation)	Filter out
	Other specific topics	

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Pyzdry Gmina Pyzdry (Orchard-226ha, Vegetables-50ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Mostly farmers.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Agriculture has the largest share of the commune's economy. Tourism is also popular and basket making from a purple willow.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	35% of the village is provided with a water-supply service.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Uneven lands. Many unpolluted natural areas.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Sometimes flooded near the river, but generally there is a lack of water resources.
	Flora and fauna/Habitat (Scarce flora and fauna)	There are breeding lands of water birds, which are among Poland's richest in terms of the number and diversity of the species.
Environmental Pollution	Complaint (the present situation)	precious area is existing.
	Countermeasures (Institutional, Compensation)	For protection of precious fauna, realization of drainage and embankments have been forsaken and creation of landscape parks and sanctuaries are anticipated.
	Other specific topics	

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Mikorzyn, Wasosze, Gmina Slesin (Orchard-145ha, Vegetables-48ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Out of 12,500 inhabitants, 2,800 are town residents.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Commune is a very well developed tourism center. Agriculture plays a major role in the commune's economy.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Numerous recreation centers are located at the lakes. Along its area, from north to south, runs an important route (No.25).
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	There are several big, tunnel-valley lakes, and a large woods complex. The woods cover 2,300 ha. The soil quality is varied.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	There are sources of iodic-bromic waters not utilized so far.
	Flora and fauna/Habitat (Scarce flora and fauna)	A small forest area is reserved for orienteering.
Environmental Pollution	Complaint (the present situation)	Increasing of traffic volume
	Countermeasures (Institutional, Compensation)	developing new roads
	Other specific topis	The largest basilica of Poland is under construction in Lichen.

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Kowalewo, Opactwo, Gmina Slupca (Orchard-72ha, Vegetables-232ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Over 9,000 inhabitants, earning their living mainly in agriculture in rural Gmina. People in town Gmina work at five food processing plants and a machine building plant.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Mainly agriculture. Food processing and machinery industries are also popular.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	International railway and highway linked with Slupca.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Diverse topography
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Far from water resources (small natural lake and artificial reservoir).
	Flora and fauna/Habitat (Scarce flora and fauna)	Many forests around the lakes.
Environmental Pollution	Complaint (the present situation)	Offensive odors from food processing plants
	Countermeasures (Institutional, Compensation)	nothing
	Other specific topics	

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Lubstow, Makolno, and its vicinity, Gmina Sompolno (Orchard-951ha, Vegetables-97ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	About 11,500 inhabitants mostly farmers -out of which 3,500 are the town's residents, 1,000 residents work at an open pit mine.
	Economic activities (Industries, Agriculture, Tourism, etc.)	The commune is of an agricultural (orchard) and industrial (brown coal mine) nature.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Infrastructure is comparatively well developed. Crossing of several provincial roads (No.263,266,269,271) All the villages are provided with water-supply services.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flatland with small valley and lakes. Out of 10,000ha of agricultural land, class II-V occupy 50%.
	Hydrological situation, Meteorology (Quality and Quantity of Water)	Half of the residents of Sompolno use a water-supply service.
	Flora and fauna/Habitat (Scarce flora and fauna)	The commune is characterized by a clean and naturally attractive environment with woods and lakes. Small forest area close to farmlands.
Environmental Pollution	Complaint (the present situation)	Lack of water resources.
	Countermeasures (Institutional, Compensation)	Considering using water from an open pit.
	Other specific topics	

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Swinice Warckie Gmina Swiniew Warckie(Orchard-95ha, Vegetables-75ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	There are about 800 farmsteads, mostly small and average. There are 140 small scale commercial business units
	Economic activities (Industries, Agriculture, Tourism, etc.)	Agriculture dominates in the commune's economy.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Railway line Herby-Gdynia runs and the A-2 highway is planned.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flat land but some small hills at the East side.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	The forest is small. Lack of water resources. Local river can not supply enough quantity.
	Flora and fauna/Habitat (Scarce flora and fauna)	Nothing in particular
Environmental Pollution	Complaint (the present situation)	Polluted Nair river. Lack of water in summer season.
	Countermeasures (Institutional, Compensation)	Reservoirs
	Other specific topics	The territories of the Gmina should be taken into consideration in case of constructing a reservoir

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Zadworna, Pieto Gmina Tuliszkow (Orchard-437ha, Vegetables-65ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Average income of the commune's inhabitants is lower than the provincial average. Mostly farmers and some commute to Turek.
	Economic activities (Industries, Agriculture, Tourism, etc.)	The commune's economy is dominated by agriculture. Outside agriculture, there are over 300 economic units, with 750 employees, out of which 200 work in industry.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	There is a well developed road network, with a considerable proportion having bituminous pavement roads. Along the southern part of the commune a narrow-gauge train runs to Kakisz.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flatland. Forest is quite large, the woods cover 26% of the commune's area.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Approximately 70% of croplands require waterworks.
	Flora and fauna/Habitat (Scarce flora and fauna)	unknown
Environmental Pollution	Complaint (the present situation)	Lack of water resources. Poor soil condition.
	Countermeasures (Institutional, Compensation)	

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Cwierdzin, Ruchocinek, Gmina Witkowo (Orchard-242ha, Vegetables-79ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	There are about 800 family farms, most of which are average and large.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Tourism, agriculture and industry are major economic sectors.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Across the commune run several routes, with roads to Poznan, Konin and Inowroclaw. There is also a narrow gauge railway.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	The major part of the commune belongs to the Powidz-Bieniszew protected landscape area.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	70% of agricultural land belongs to soil condition class II - IV. Close to big lake
	Flora and fauna/Habitat (Scarce flora and fauna)	Natural protected area
Environmental Pollution	Complaint (the present situation)	Lack of water resources for agricultural land.
	Countermeasures (Institutional, Compensation)	Utilizing water from the Skorzecin watering place.
	Other specific topics	There are sprinkler systems near Malenina

Site Description of Projects

Project : PAG-2 Establishment of comprehensive irrigation management systems *Project Site(s):* Zagorow (Orchard-68ha, Vegetables-68ha)		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Mostly farmers and cattle breeding.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Agriculture dominates in the commune's economy. Apart from agriculture, there are over 250 economic units.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Croplands cover 11,300 ha:64.7% are ploughlands, 0.6% orchards, and 34.7% meadows and grazing land.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	very diversified: the land is flat and swampy, and there are some hills.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Warta river is running.
	Flora and fauna/Habitat (Scarce flora and fauna)	The region of the Warta river valley creates shelter for water birds and fowl, and is one of the most diversified in Poland, in terms of numbers of species.
Environmental Pollution	Complaint (the present situation)	
	Countermeasures (Institutional, Compensation)	the landscape area is protected.
	Other specific topics	

Site Description of Projects

Project : PAG 4 Promotion of Agro-tourism

Project Site(s): Gmina Powitz

Items		Situation
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Inhabitants total 2,000. Most of them are farmers. There is a military base.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Mainly farming areas, and tourist spots, such as lakes and forests. About 10,000 to 12,000 tourists stay in Powitz per day during the summer months.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	There are local roads connecting to Slupca via Stralkowo. There is a narrow gauge railway. A small airport for the military exists.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	The largest lake in the Wilkopolska region is here (Lake Powitz:1,200ha). Soil quality index is grade III to V.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Lake Powitz(1,200 ha).
	Flora and fauna/Habitat (Scarce flora and fauna)	Natural protected areas
Environmental Pollution	Complaint (the present situation)	Shortage of water for farmland
	Countermeasures (Institutional, Compensation)	Utilization of water from the lake and wells

Site Description of Projects

Project :PKI-1 Development of aluminum down stream industries *Project Site(s):* Gostawice, Gmina Konin		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Industrial area. Very few local inhabitants.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Aluminum production (HUTA) and the Konin power station
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Route 25 runs along the area (Konin to Slesin)
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Flatland
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Already installed a communal water network.
	Flora and fauna/Habitat (Scarce flora and fauna)	Carefully protected
Environmental Pollution	Complaint (the present situation)	Soil in some area was polluted by aluminum production.
	Countermeasures (Institutional, Compensation)	move to other places. Periodical monitoring
	Other specific topics	Construction of a new waste dumping site is planned

Site Description of Projects

Project : PKI-2 Promotion of heat utilization industries *Project Site(s):* Patnow or Janow, Gmina Konin		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Few residents, most of whom are farmers
	Economic activities (Industries, Agriculture, Tourism, etc.)	Electric power generation, brown coal mine and aluminum production are the main industries.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Route 25 runs through the area. Two lakes close to the area but water is polluted by industrial waste.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Flatland with small undulations.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Plenty of water from lakes, but they require filtering.
	Flora and fauna/Habitat (Scarce flora and fauna)	Carefully protected
Environmental Pollution	Complaint (the present situation)	Dumping ash into a pond
	Countermeasures (Institutional, Compensation)	periodical monitoring
	Other specific topics	

Site Description of Projects

Project : PKI-3 Master plan study for utilization of underground water *Project Site(s):* Gmina Kleczew, Gmina Przykow		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Most of residents work in agriculture or the brown coal mines. Some people commute to Konin or Turek
	Economic activities (Industries, Agriculture, Tourism, etc.)	Brown coal mines ADAMOW and Konin is the major industry. Income levels are higher, relatively, than in the other Gminas
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Generally well developed. All the villages are provided with a water supply service.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	The considerable area of meadows and grazing lands create good conditions for cattle breeding.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Plenty of water from mines.
	Flora and fauna/Habitat (Scarce flora and fauna)	Carefully protected
Environmental Pollution	Complaint (the present situation)	Water pollution in agricultural land
	Countermeasures (Institutional, Compensation)	Digging a deeper well
	Other specific topics	

Site Description of Projects

Project : PID-2 Construction of a Konin Woodworking Industrial Park *Project Site(s):* Wieruszew, Gmina Kazimierz Biskupi		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Farmers with a side job. Some people are commuting to Konin and Kazimierz Biskupi for their work.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Mainly a farming area, including the largest greenhouses in the Province.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	A local road (No.264) runs through the area. Close to a power station and Lake Goslawskie.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flatlands but not swampland. Soil quality index is grade V.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Lake Goslawskie (2Km in length). Plenty of groundwater.
	Flora and fauna/Habitat (Scarce flora and fauna)	Already developed farmland and part of a forest near the lake.
Environmental Pollution	Complaint (the present situation)	Waste water from power station and domestic drain to the lake. Smoke from power station
	Countermeasures (Institutional, Compensation)	Periodical monitoring.
	Other specific topics	-

Site Description of Projects

Project : PDT-1 Construction of a distribution center for construction materials		
Project Site(s): Str. Miasto, Gmina Stare Miasto		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	The suburbs of Konin Gmina. The area is newly developed for industrial purposes.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Mainly agriculture & manufacturing industries. Some service industries for long-distance trucks
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Along a main road between the A-2 and E-30, and also north and south in the province.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Gently-sloping but not hilly
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	The waterworks in the Gmina are completed. The water supply for industry is mainly from deep wells.
	Flora and fauna/Habitat (Scarce flóra and fauna)	unknown
Environmental Pollution	Complaint (the present situation)	Increasing traffic volume on the by-pass road.
	Countermeasures (Institutional, Compensation)	unknown
	Other specific topics	

Site Description of Projects

Project : PDT-2 Construction of a service area for Long-distance drivers *Project Site(s):* Osiecza, Gmina Rzgow		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	People are commuting to Konin and Stare Miasto for their work. A few farmers are also in the area.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Housing, industrial and farming areas are mixed. A new highway runs through the area. Service industry for drivers is developing.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	New highway (A2) runs through the area.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flatlands and near the Warta river. Some wetlands are in evidence.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Plenty of groundwater.
	Flora and fauna/Habitat (Scarce flora and fauna)	unknown
Environmental Pollution	Complaint (the present situation)	Increasing traffic volume
	Countermeasures (Institutional, Compensation)	Nothing
	Other specific topics	

Site Description of Projects

Project : PDT-3 Construction of a distribution center for fruits and vegetables *Project Site(s):* Near the Rout A-2 interchange, Gmina Stare Miasto		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Mainly full-time farmers. Some people are commuting to Konin for their work.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Mainly farming. Interchanges of a new highway are being planned for the industrial zone which will affect some of the areas nearby. (Note to Mr Maeda - I hope I have interpreted this sentence correctly).
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	New highway (A2) runs through the area.
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flatlands. Soil condition is grade IV-V.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Draw water from a well
	Flora and fauna/Habitat (Scarce flora and fauna)	Already developed farmland.
Environmental Pollution	Complaint (the present situation)	Nothing
	Countermeasures (Institutional, Compensation)	Nothing
	Other specific topics	

Site Description of Projects

Project : PTR-1 Development of Hot Spring Resources *Project Site(s):* Gminas of Uniejow, Dabie, Slesin and/or Wilczyn		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Local town residents and farmers. Some people are commuting to nearby big towns for their work.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Mainly farming. Slesin: There exists several recreational centers Uniejow: Tourists tend to visit the old castle
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Uniejow: Local roads No.469 and 473 Dabie: Local roads No.473 and 474 Slesin: National road No25, Local road 263 Wilczyn: only Gmina roads
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flat or waving ? (Mr Maeda - Do you mean undulating) land Geothermal water is available Soil quality is mostly grade IV-VI
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Slesin: Slesinskie Lake Dabie: River Ner Uniejow: River water Wilczyn: Kownackie and other lakes
	Flora and fauna/Habitat (Scarce flora and fauna)	Already developed farmland. Forests, consisting mainly of pine trees, in Slesin and Wilczyn
Environmental Pollution	Complaint (the present situation)	Dabie: The Ner river flowing from Lodz is heavily polluted.
	Countermeasures (Institutional, Compensation)	Inter-provincial coordination by central government is urgently required.
	Other specific topics	

Site Description of Projects

Project : PLD-1 Betterment of transportation infrastructure *Project Site(s):* Konin, Kolo, Slesin, Turek, Sompolno, and 31 Gmina bridges		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Higher living standards (Konin, Kolo, Turek), Medium and low income class are mixed (Slesin, Sompolno). Mostly farmers.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Urban and agricultural mixed area (Konin, Kolo, Turek), Mainly agriculture and small commercial activities (Slesin, Sompolno)
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Heavy traffic congestion (Konin, Kolo, Turek), Heavy traffic in city centers (Slesin, Sompolno)
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flat and some swampy areas (Konin, Kolo), Mostly flat and a dry land area (Slesin, Sompolno)
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Warta river flows nearby (Konin, Kolo), shortage of surface water in the area (Slesin, Sompolno), Others are flat.
	Flora and fauna/Habitat (Scarce flora and fauna)	Mostly covered with short grass, or is farming area. With coniferous forests nearby (Sompolno, Slesin)
Environmental Pollution	Complaint (the present situation)	Periodical floods in some locations particularly from tributaries of the Warta river.
	Countermeasures (Institutional, Compensation)	Periodical monitoring
	Other specific topics	

Site Description of Projects

Project : PLD-2 Supply of low cost housing *Project Site(s):* Gmina Konin		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Relatively high living standards in the urban area
	Economic activities (Industries, Agriculture, Tourism, etc.)	Commercial and industrial areas mixed
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Fairly well developed transportation system. Major roads and a railroad run through the city center
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flat with some swampy areas along the Warta river.
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Water intakes from underground. There are high quality water resources as well as large quantities
	Flora and fauna/Habitat (Scarce flora and fauna)	Relatively scarce forests in the area.
Environmental Pollution	Complaint (the present situation)	Offensive odors from surrounding factories depending on wind direction.
	Countermeasures (Institutional, Compensation)	Periodical monitoring is necessary.
	Other specific topics	

Site Description of Projects

Project : PLD-3 Construction of a centralized waste treatment and disposal facility on the refilled land *Project Site(s):* Gmina Kleczew and Wilczyn		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Mostly farmers. Some are commuting to Konin for their work.
	Economic activities (Industries, Agriculture, Tourism, etc.)	Mostly a mining and farming area. Farmers use some refilled land from lignite mines for farming.
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Major highway is running vertically along the area
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flat land Relatively low quality of soil
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Some areas have a shortage of underground water. There is a shortage of surface water in most refilled land
	Flora and fauna/Habitat (Scarce flora and fauna)	Mostly covered with short grass or is farming area. Coniferous forests surround the area
Environmental Pollution	Complaint (the present situation)	Complaints about the shortage of water from farmers.
	Countermeasures (Institutional, Compensation)	Compensation on land acquisition to farmers from Gmina and mining companies
	Other specific topics	

Site Description of Projects

Project : PLD-4 Construction of an industrial park for general use *Project Site(s):* Konin, Stare Miasto, Golina and Slupca		
Items		**Situation**
Social Environment	Local community (Inhabitants, Incomes, Peoples' awareness of the regional plan)	Higher living standards (Konin, Slupca), Medium and lower income classes are mixed (Sta.Miasto, Golina)
	Economic activities (Industries, Agriculture, Tourism, etc.)	Urban and agriculture mixed area (Konin, Kolo, Turek), Mainly agriculture and some commercial activities (Sta. Miasto), Mostly farmlands but with some industry (Golina)
	Traffic/Public facilities/Land use (Transport (Transport network, Drinking water) Cult	Heavy traffic congestion (Konin, Sta.Miasto, Slupca), Exits of A-2 are within 5kms of all locations
Natural Environment	Topography/Geology/Landscape (Country, Swamp, Soil)	Mostly flat but with some swampy areas (Konin, Sta.Miast), Good quality soil (Slupca, Golina)
	Hydrological situation, Meteorology (Quality and Quantity of Water, Rainfall)	Warta river is running nearby (Konin,Stare Miasto)
	Flora and fauna/Habitat (Scarce flora and fauna)	Mostly covered with short grass, or is farming area.
Environmental Pollution	Complaint (the present situation)	Bad smell from factories depending on wind direction (most locations)
	Countermeasures (Institutional, Compensation)	Needs periodical monitoring
	Other specific topics	

Check List for Agriculture Project

No.	Items	Assessment
1	Affect areas with animal and plant life which is worthy of protection, or areas with particularly vulnerable ecosystems?	
2	Affects areas with histrical remains or landscape elements which are of importance to the local population?	
3	Lead to substantial increase in erosion?	
4	Lead to over pumping-up or reducing of groundwater?	
5	Lead to substantial change in topography and geology?	
6	Lead to substantial change in hydrological situation?	
7	Lead to substantial salinization of cultivated or cultivable land?	
8	Create a risk for increased spread of water-borne diseases?	
9	Create pollution problems?	
10	Lead to conflicts with regard to existing land use and ownership of land?	

Check List for Transport Projects

No.	Items	Assessment
1	Affect areas with animal and plant life which is worthy of protection, or areas with particularly vulnerable ecosystems?	
2	Affects areas with historical remains or landscape elements which are of importance to the local population?	
3	Lead to substantial change in topography and geology?	
4	Create noise and vibration?	
5	Create pollution problems?	
6	Create a risk of accidents which may have serious consequences for the local population and the natural environment?	
7	Obstruct, or lead to heavy traffic?	
8	Create waste disposal problems?	
9	Lead to major changes in the landscape, terrain or topography?	
10	Lead to conflicts with regard to existing land use and ownership of land?	

Check List for Industrial Projects

No.	Items	Assessment
1	Affect areas with animal and plant life which is worthy of protection, or areas with particularly vulnerable ecosystems?	
2	Affects areas with historical remains or landscape elements which are of importance to the local population?	
3	Lead to substantial pollution of water, air or soil?	
4	Create noise and vibration?	
5	Create offensive odor?	
6	Create a risk of accidents which may have serious consequences for the local population and the natural environment?	
7	Obstruct, or lead to heavy traffic?	
8	Create waste disposal problems?	
9	Lead to major changes in the landscape, terrain or topography?	
10	Lead to conflicts with regard to existing land use and ownership of land?	

Check List for Hotspring and Ground Water Projects

No.	Items	Assessment
1	Affect areas with animal and plant life which is worthy of protection, or areas with particularly vulnerable ecosystems?	
2	Affects areas with historical remains or landscape elements which are of importance to the local population?	
3	Create substantial pollution problems, and risk of polluting land outside the actual mining site?	
4	Create substantial waste or water disposal problems?	
5	Lead to high rates of consumption of scarce material resources?	
6	Lead to tapping of groundwater in such quantities that there is a danger for permanently lowering of the groundwater-table?	
7	Create a risk for increased spread of water-borne diseases?	
8	Change the way of life of the local population in such a way that it leads to a considerably increased pressure on the natural resource base?	
9	Lead to major changes in the landscape, terrain or topography?	
10	Lead to conflicts with regard to existing land use and ownership of land?	

Check List for Infrastructure Development Projects

No.	Items	Assessment
1	Affect areas with animal and plant life which is worthy of protection, or areas with particularly vulnerable ecosystems?	
2	Affects areas with historical remains or landscape elements which are of importance to the local population?	
3	Lead to substantial change in topography and geology?	
4	Lead to substantial pollution of water and soil?	
5	Create resettlement problems of local residents?	
6	Create a risk of accidents which may have serious consequences for the local population and the natural environment?	
7	Obstruct, or lead to heavy traffic condition or congestion of public facilities?	
8	Create waste disposal problems?	
9	Lead to major changes in the landscape, terrain or topography?	
10	Lead to conflicts with regard to existing land use and ownership of land?