

## 8.9 PONTIANAK METROPOLITAN AREA DEVELOPMENT PROGRAM

**Title:**

Pontianak Metropolitan Area Development Program

**Sector:**

Urban Sector

**Location:**

- Pontianak Municipality and Pontianak District, West Kalimantan

**Time to be Implemented:**

2004-2008: Urban planning study

2009-2013: Construction of the second bridge over the Kapuas river and an outer ring road

2013-2018: Development of a Waterfront and commercial/business districts

**Institutions Responsible for Implementation:**

- Pontianak Municipality
- Pontianak District
- Public Works Department of Provincial Government

**Goals:**

- To properly guide long-term urban development to make Pontianak a regional-level urban center
- To prepare for the basic spatial structure of Pontianak Metropolitan Area for further development as the provincial capital by the construction of an outer ring road
- To strengthen commercial and business functions of Pontianak by development of a waterfront and commercial/business district development
- To improve urban amenity and to provide an open space in Pontianak

**Rationale:**

Pontianak is not only a provincial capital but also will be a regional center covering the western part of Kalimantan. In this sense, Pontianak needs to prepare both for physical urban expansion and for upgrading urban functions in the long-term future. Pontianak is expected to have a population of more than one million in 2018 according to Repelita IV.

In West Kalimantan, the primary means of transport had been by river by the mid 1980s. However, the road development of the last decade has shifted the spatial structure of the province. As a result, Pontianak should respond to this shift in order to continue to serve the region effectively.

Pontianak still has only one inter-city road exit. The road leads north (such as Mempawah and Singkawang) and inland (Sanggau, Sintang and Putussibau). At present, the road directly connecting Pontianak and Tayan is under construction. However, even after the new road comes into Pontianak, all the motor vehicles going out of Pontianak still must go through the existing southern bridge. As a result, the traffic congestion of the existing bridges would be worsened.

The construction of a new bridge, crossing the Kapuas River in the western part of Pontianak, would divert the inter-city traffic into two directions: one to the north and one to the west. At the same time, the new bridge, together with proper planning of an outer ring road, could guide physical urban expansion.

The next step for upgrading Pontianak would be the relocation of the existing port to the downstream to the new bridge for further expansion. After the relocation of the port, the site could be redeveloped to a commercial business center with some urban amenities and open space for increasing Pontianak's attraction to the people and business.

The amenities and open space of the commercial business district in Pontianak attracting people and investment, are limited. The water front development along the Kapuas river could provide the opportunities for upgrading the urban function and improving urban amenities.

#### **Contents of the Project:**

- To conduct an urban planning study for Pontianak and its surrounding area
- To revise the urban structure plan including landuse zoning and infrastructure.
- To construct a bridge, crossing the Kapuas river further downstream
- To construct an outer ring road and to improve the arterial road system
- To develop a waterfront of the Kapuas river for improving urban amenity and business function along the Kapuas river
- To develop commercial/business districts with the development the port site after moving the port downstream
- To formulate a management plan for improving the Kapuas river water quality

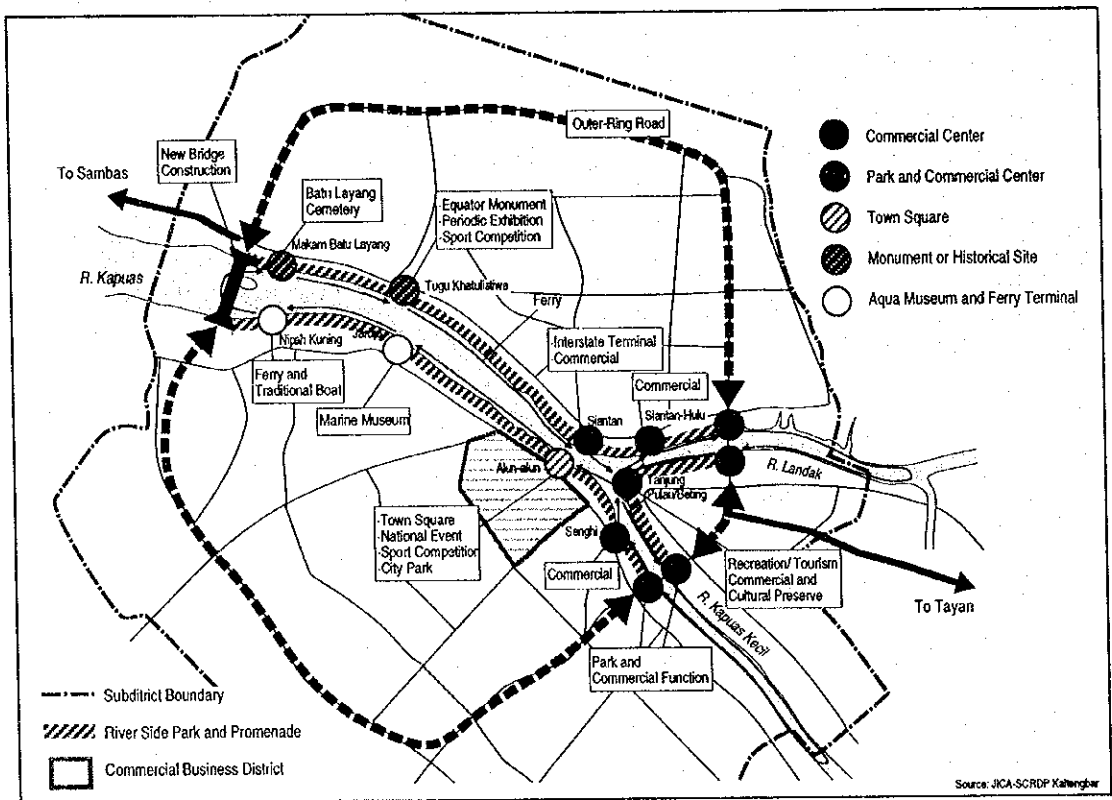
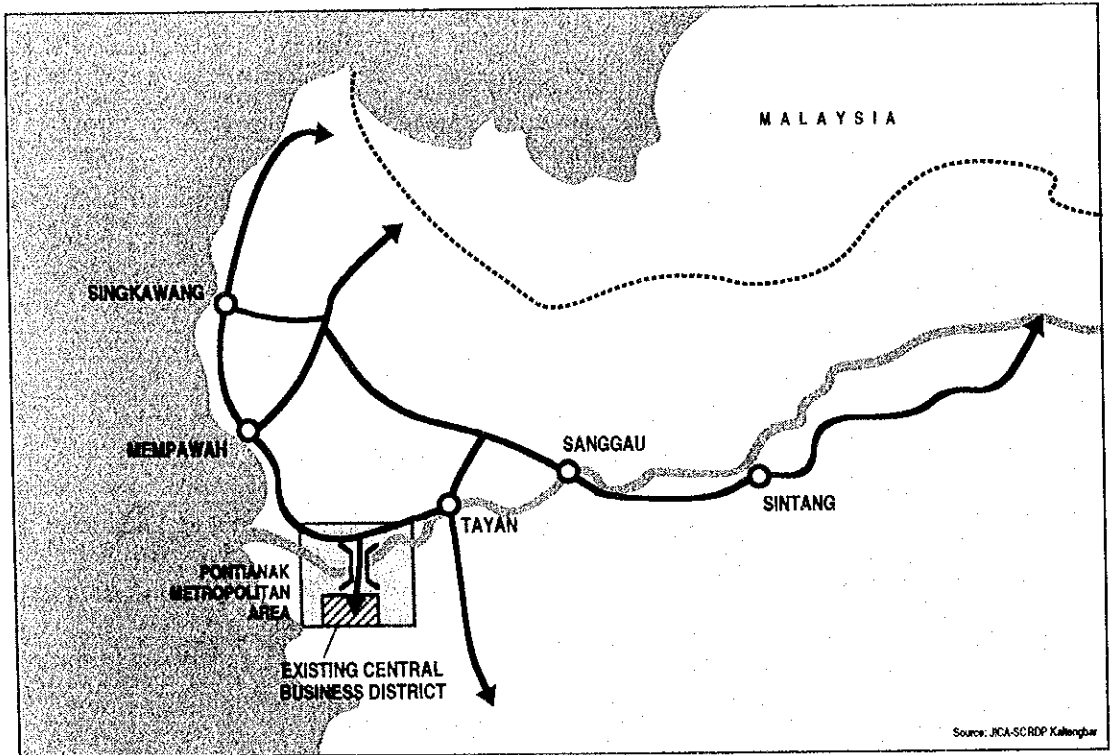
#### **Related Plans, Programs and Projects:**

- Regional water resources development project, recommended by JICA SCRDP-Kaltengbar

#### **Contribution to Different Goals:**

- This project will raise the potential of the Pontianak Metropolitan Area and provide the basic spatial structure for further development and upgrading urban function.
- The business opportunities will increase and investment will be attracted as a result.
- By the project, the spatial structure will be upgraded and the functions of the town will be strengthened.
- The urban environment condition will be improved by reducing through traffic into the city center area and the urban amenities will be improved by producing open spaces in the center of the commercial business district.

Figure 8.9.1 Pontianak Metropolitan Area Development Program



## **8.10 KAPET SANGGAU DEVELOPMENT PROGRAM**

### **8.10.1 Pemangkat Industrial Estate for Small and Medium Scale Food Processing Industries**

**Title:**

Pemangkat Industrial Estate for Small and Medium Scale Food Processing Industries

**Sector:**

Industry  
Small and Medium Enterprise Promotion

**Location:**

Pemangkat in the district of Sambas

**Time to be Implemented**

2004 ~ 2008: Engineering Design and Construction Works

**Institutions Responsible for Implementation:**

- District Government of Sambas

**Goals:**

- To develop agroindustry utilizing agricultural produce in the province
- To supply foodstuff to the Natuna island through packaging and processing

**Rationale:**

The Natuna Island development including natural gas exploitation is a KAPET project in Riau province. West Kalimantan, being the nearest to Natuna, is expected to be the food supplier. The Sambas district has potential in the food processing industry due to its relatively well developed agricultural area.

It is important for West Kalimantan regional development to take advantages of Natuna Island's natural gas development by developing logistic bases and, if possible, a metal-engineering support base in West Kalimantan, especially in the coastal zone between Pontianak and Pemangkat.

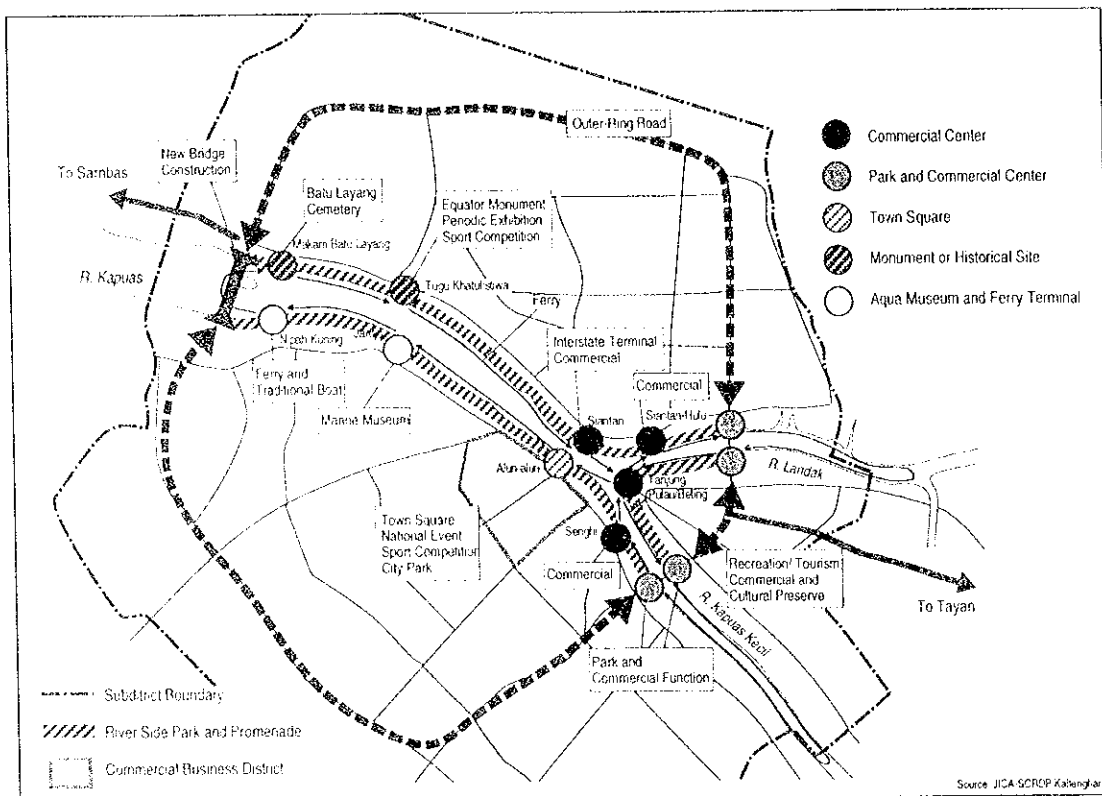
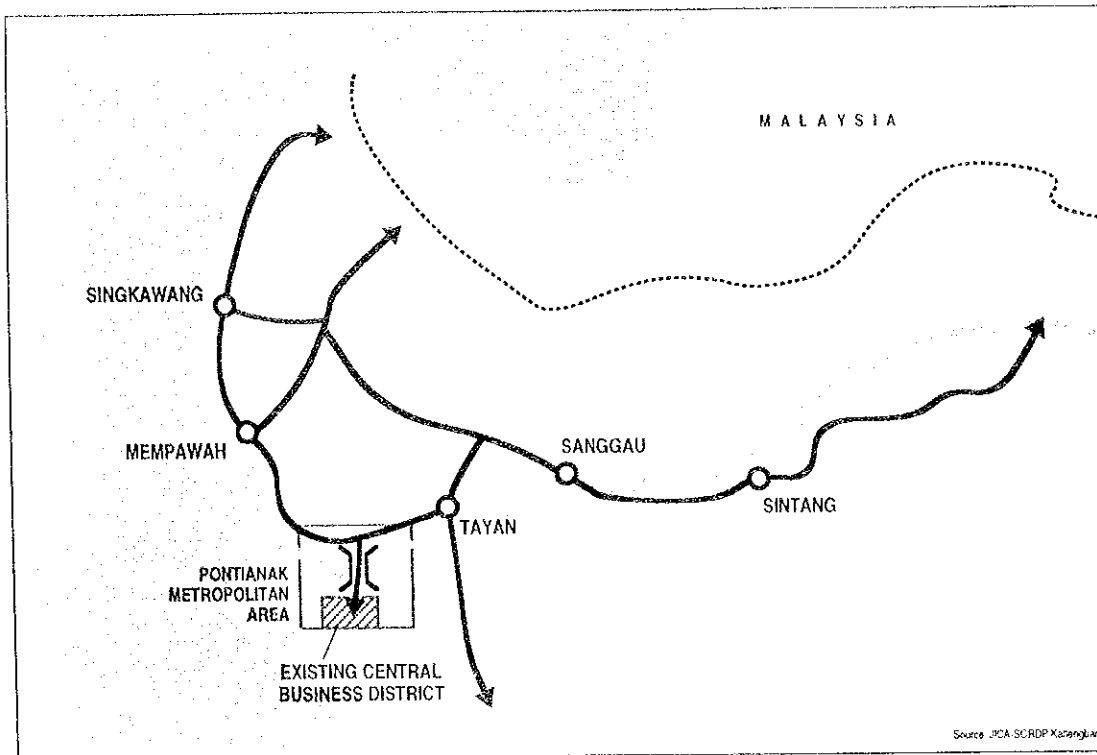
Pemangkat town has an urban population of 24,000 and substantial accumulation of economic activities. Moreover, Pemangkat has a port (Sintete port) with decent facilities. In this sense, Pemangkat has relatively high potential for the location of an industrial estate to accommodate food processing industries and other agroindustries.

The beneficiaries of this project will be the small and medium industries as well as the farmers of the district as suppliers of raw material.

Although this project is less prospective due to the shortage of public budgets in and just after the present economic crisis, it has still high development potential and it would be important to support regional economy.

**Contents of the Project:**

Figure 8.9.1 Pontianak Metropolitan Area Development Program



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### **8.10.1 Pemangkat Industrial Estate for Small and Medium Scale Food Processing Industries**

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Pemangkat Industrial Estate for Small and Medium Scale Food Processing Industries

**Sector:**

Industry  
Small and Medium Enterprise Promotion

**Location:**

Pemangkat in the district of Sambas

**Time to be Implemented**

2004 ~ 2008: Engineering Design and Construction Works

**Institutions Responsible for Implementation:**

- District Government of Sambas

**Goals:**

- To develop agroindustry utilizing agricultural produce in the province
- To supply foodstuff to the Natuna island through packaging and processing

**Rationale:**

The Natuna Island development including natural gas exploitation is a KAPET project in Riau province. West Kalimantan, being the nearest to Natuna, is expected to be the food supplier. The Sambas district has potential in the food processing industry due to its relatively well developed agricultural area.

It is important for West Kalimantan regional development to take advantages of Natuna Island's natural gas development by developing logistic bases and, if possible, a metal-engineering support base in West Kalimantan, especially in the coastal zone between Pontianak and Pemangkat.

Pemangkat town has an urban population of 24,000 and substantial accumulation of economic activities. Moreover, Pemangkat has a port (Sintete port) with decent facilities. In this sense, Pemangkat has relatively high potential for the location of an industrial estate to accommodate food processing industries and other agroindustries.

The beneficiaries of this project will be the small and medium industries as well as the farmers of the district as suppliers of raw material.

Although this project is less prospective due to the shortage of public budgets in and just after the present economic crisis, it has still high development potential and it would be important to support regional economy.

**Contents of the Project:**

- To study development potential of food processing industries and other agroindustries
- To study institutional arrangements of establishing and operating an industrial estate for food processing industries
- To conduct engineering design of an industrial estate
- To design necessary facilities for laboratory of quality testing, and other activities such as post harvest technology, packaging, and marketing
- To develop the industrial estate with supporting facilities and services

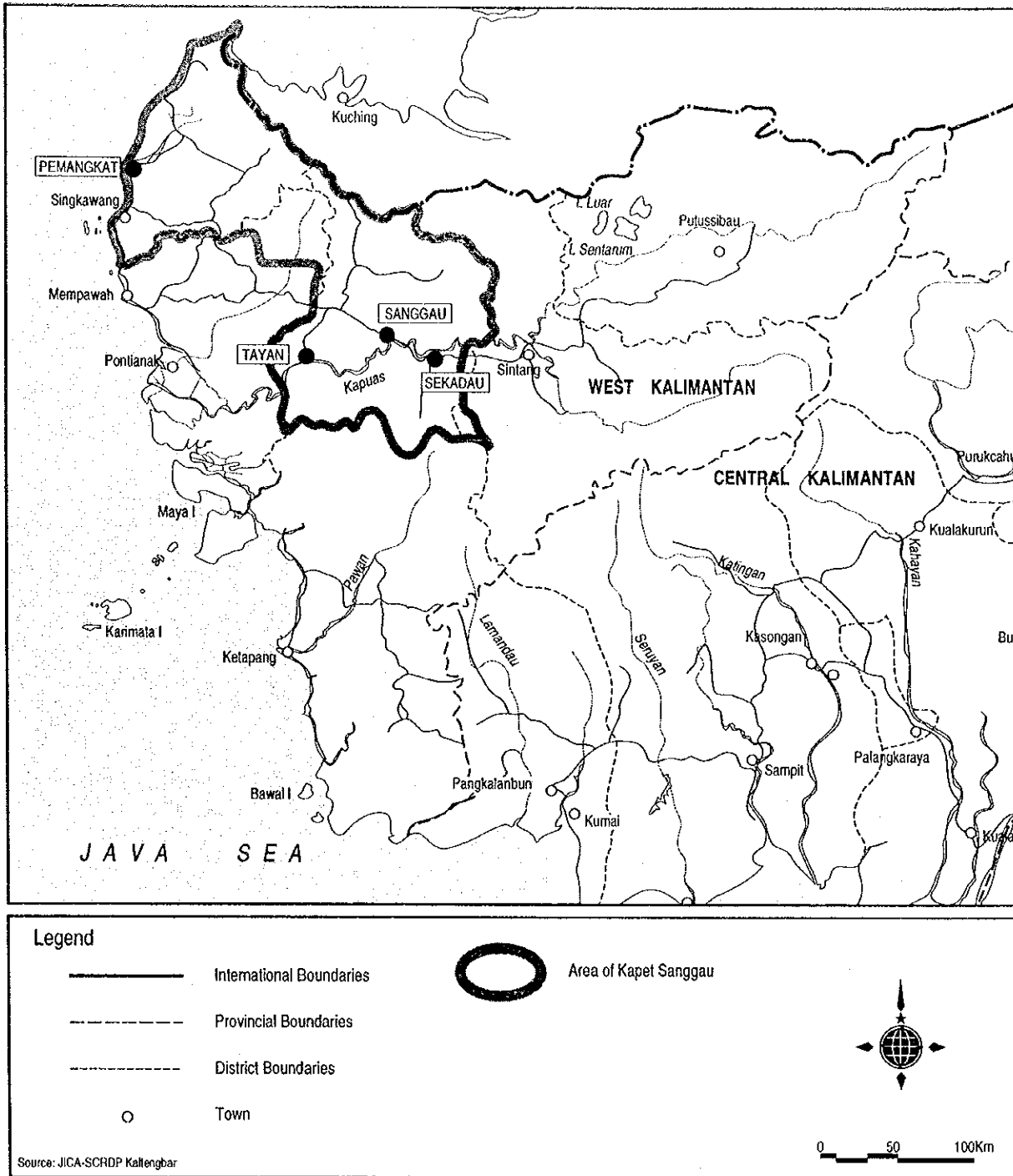
**Related Plans, Programs and Projects:**

- Natuna island development project
- Agriculture development project in the Sambas district

**Important Policy Conditions:**

- The government's policy to support the Natuna Island's natural gas development

Figure 8.10.1 Location of KAPET Sanggau



Source: JICA-SCRDP Kaltengbar



### 8.10.2 Sintete Port Development Project

**Title:**

Sintete Port Development Project

**Sector:**

Transportation

**Location:**

Pemangkat, Sanggau District, West Kalimantan (see Figure 8.10.1)

**Time to be Implemented:**

2004 ~ 2008: Engineering Design and Construction Works

**Institutions Responsible for Implementation:**

- Provincial Government
- Ministry of Communications

**Goals:**

- To provide better port facilities
- To support agricultural and small and medium scale industries
- To enhance industrial and agricultural activities in the region

**Rationale:**

The Natuna Island is located some 300 km northwest of the port and is expected develop LNG plant, shipping yard, and electronic industries. West Kalimantan is expected to supply logistics, construction materials and services. The port development including improvement of the existing port facilities is needed for coping with future cargo demands.

The port development would increase the development potential of small and medium industries for processing agricultural produce, which would be supplied from the surrounding rural areas.

**Contents of the Project:**

- Planning study of port development
- Construction of port facilities (general cargo berth)

**Related Plans, Programs and Projects:**

- Natuna island development project
- Agricultural development project in Sambas district
- Industrial estate for small and medium scale food processing industries

**Important Policy Conditions:**

- The start of this project depends on the government's decision when to re-start the Natuna Island natural gas development project.

### **8.10.3 Sanggau, Tayan and Sekadau Urban Center Development Project**

**Title:**

Sanggau, Tayan and Sekadau Urban Center Development Project

**Sector:**

Urban Sector

**Location:**

Sanggau Town, Tayan Town and Sekadau Town, the District of Sanggau, West Kalimantan (see Figure 8.10.1)

**Time to be Implemented:**

1999 ~ 2004: Needs study  
2005 ~ 2008: Implementation

**Institutions Responsible for Implementation:**

- Sanggau District Office
- Public Works Office of District Government of Sanggau
- District Bappeda of Sanggau

**Objectives:**

- To improve urban services which can be assessable by the urban population but also by the surrounding rural population
- To reduce the burden of pollution from rapidly growing urban centers
- To provide basic infrastructure for further development

**Rationale:**

The town of Sanggau is a district capital town, which is a secondary urban center. The towns of Tayan and Sekadau are subdistrict capital towns, which are tertiary urban centers. These three urban centers are located along the Kapuas river in the middle stream areas, and recently roads connecting these towns with Pontianak have been constructed.

The road development into the interior has tendency to promote urban growth and to increase the pressure of rural landuse in the middle stream areas. On the other hand, in order to support the development activities and to cope with increased demands for urban services not only by urban residents but also by rural people in their hinterlands, these towns are required for improving infrastructure and service provision.

The improvement of treatment of human wastes, garbage and drainage is important in the rapidly growing urban centers because still many of the rural people along the rivers rely on the river water in their daily lives.

The problem here is that it is not possible to stop the rural people relying on river water for living because it is not easy for the rural people to find alternative water sources immediately. Therefore, it is necessary to reduce the burden of water pollution from human settlements, especially from relatively rapidly growing urban centers.

**Contents of the Project:**

- To conduct urban planning studies for revising urban structure plans
- To conduct urban infrastructure development plans covering the following infrastructure:
  - Road
  - Water supply
  - Sanitation
  - Solid Waste Disposal
  - Power supply
  - Drainage and flood control
- To prepare action plans for improvement of urban infrastructure
- To implement action plans

**Related Plans, Programs and Projects:**

- Kapet Sanggau Development Program
- Integrated Urban Infrastructure Development Program (IUIDP)

**Important Policy Conditions:**

- The government's regulation on river water quality and on waste water discharge from factories

#### 8.10.4 Entikong Free Trade and Processing Zone Development Project

**Title:**

Entikong Free Trade and Processing Zone Development Project

**Sector:**

Trade and Industry

**Location:**

West Kalimantan

**Time to be Implemented:**

1999-2003: Planning Study and Engineering Design  
2004-2008: Implementation

**Institutions Responsible for Implementation:**

- Provincial Government of West Kalimantan

**Objectives:**

- To assist in the realization of a needed industrial and trade agglomeration center in West Kalimantan.
- To assist in the realization of the East ASEAN Growth Area (EAGA).

**Rationale:**

In spite of the on-going economic and financial crisis, there remains a need for accelerating regional development in Western Kalimantan through the establishment of trade and manufacturing agglomeration centers, and for further promotion of the EAGA concept. The most logical immediate choice for a trade and processing center as a gateway to Malaysia would be the border crossing near Entikong, which is about 314 km and a six hours drive from Pontianak. Entikong is located in the Sekayan subdistrict, Sanggau Kapuas District.

Such a trade and processing center, which may even take the form of a free border trade zone, will bring about direct benefits to both Indonesia and Malaysia through the combination of cheaper Indonesian labor with Malaysian capital and technology.

The relatively open border crossing brings already benefits to West Kalimantan in the form of receipts from Malaysian tourists.

**Contents of the Project**

- To conduct a feasibility study (F/S) for investigating the economic and financial feasibility of conceptual alternatives for establishing a trade and processing agglomeration center near Entikong with a view to recommend the most feasible option.
- The principal options to be investigated are : i) a free trade border zone between EAGA participating countries (Brunei Darussalam; Indonesia; Malaysia, and the Philippines or BIMP; ii) a pure industrial estate; and iii) a combined industrial estate inside a free trade border zone with the BIMP participating countries.

- Major elements of the F/S would cover site identification; required infrastructure facilities (water, waste water and sewage; electricity; telecommunications, access roads, and so on) identification of suitable lines of manufacturing for a possible industrial estate and/or processing zone; existing and anticipated trade patterns and flows; obstacles in the policy environment in participating countries and recommendations for their phased removal; and private sector interests in BIMP countries.
- The F/S should, if possible, be implemented through a coordinated private/public sector approach, or through joint private/public sector implementation (public-private partnership concept)

**Related Plans, Programs and Projects:**

- KAPET Sanggau development

**Important Policy Conditions:**

- This project depends on the policy condition if the government allows the operation of free trade zones in international border areas.

## **8.11 PANGKALANBUN-KUMAI URBAN, INDUSTRIAL AND PORT DEVELOPMENT PROGRAM**

### **8.11.1 Kumai Industrial Estate Development Project**

**Title:**

Kumai Industrial Estate Development Project

**Sector:**

Industry

**Location:**

Kumai in Kotawaringin Barat District, Central Kalimantan

**Time to be Implemented:**

- 1998 ~ 2003: Master planning study of urban, industrial and port development, and designation of an industrial development zone adjacent to the existing or prospective port of Kumai, as an official plan
- 2004 ~ 2008: Securing the land for the industrial estate adjacent to the existing or prospective port of Kumai
- 2009 ~ 2013: Provision of basic facilities and services, such as water supply, electricity and telecommunications, which enable the operation of private manufacturing factories

**Institutions Responsible for Implementation:**

- Provincial Government of Central Kalimantan
- District Government of Kotawaringin Barat
- Ministry of Trade and Industry

**Goals:**

- To strategically develop an industrial center in Pankalanbun and Kumai, taking advantages of upland oil palm plantation development
- To encourage upland oil palm plantation development

**Rationale:**

When the Upland Ecological Development Corridor is realized in upland areas of the western part of Central Kalimantan (the districts of Kotawaringin Barat and Kotawaringin Timur), the future hinterland population of Pangkalanbun-Kumai will be 1.4 million, and the crude palm oil (CPO) production will be 1.5 million tons per year. This means that the prospective oil palm plantation development in the upland areas could create development potential of downstream industries including oleochemical industries.

In order to realize the development potential of downstream industries using crude palm oil, the area of Pangkalanbun and Kumai can provide a strategic location of an industrial port and an industrial estate adjacent to the Kumai port because Pangkalanbun-Kumai area satisfies the following conditions:

- Kumai has deep sea port conditions.

- Kumai has low sedimentation partly
- Kumai is the nearest port from the surrounding upland oil palm plantations.
- Pangkalanbun, a district capital, which could be an urban service and business center for Kumai, is closely located to Kumai.
- Pangkalanbun has direct flight connections with Pontianak, as well as with Semarang, Java.
- Pangkalanbun and Kumai are not in swamp areas, unlike the other ports, such as Sampit and Kualakapuas.
- Trans-Kalimantan Highway passes through Pangkalanbun close to Kumai.

If Central Kalimantan is successful in attracting an oleochemical plant, it creates further development potential of oil palm plantations in the province, because crude palm oil to be produced by plantations has to find markets in processing industries somewhere in or outside the province.

In addition, Pangkalanbun and Kumai have good potential to develop a regional urban center. In 1990, the urban population of Pangkalanbun was 24,500. In general, the size of a regional center is approximately 10 % of the hinterland population. If this general assumption applies, the urban population of Pangkalanbun and Kumai would be beyond 100,000 in the next two decades.

It is strategically important to conduct a master planning study for urban, industrial and port development for Pangkalanbun and Kumai, and at the same time, to secure the land necessary to construct an industrial estate of 100 ha, which should be adjacent to the existing port or prospective port of Kumai. However, the private sector is supposed to build industrial estate or to prepare an industrial area, while the government should provide basic facilities and services to enable industrial operations.

**Table 8.11.1 Oil Palm Development Potential of the Upland Development Corridor in Kotawaringin Barat and Timur**

Length of the Corridor	Approximately 240 km
Width of the Corridor	Approximately 50 km
Total Area of the Corridor	1.2million ha
Planned Oil Palm Plantations (Planted Area)	280,000 ha
The Present Population	120,000
The Future Population in 2018	350,000
The Future Population related to Oil Palm Plantation in 2018	250,000

Source: JICA SCRDP-Kaltengbar

#### **Contents of the Project:**

- Master planning study of urban, industrial and port development
- Designation of an industrial development zone adjacent to the existing or prospective port of Kumai, as an official plan
- Provision of basic facilities and services, such as water supply, electricity and telecommunications, which enable the operation of private manufacturing factories

#### **Related Plans, Programs and Projects:**

- Port development in Kumai
- Kumai urban infrastructure improvement, if any

#### **Important Policy Conditions:**

The government recognizes the potential of upland oil palm plantation development in Central Kalimantan and the strategic location of Pangkalanbun and Kumai area

**Contribution to Different Goals:**

The successful development of oleochemical industries and other downstream industries using crude palm oil could help to improve the business environment of oil palm plantation development. Furthermore, this enables the private oil palm plantation companies to establish good relations with upland local communities.



**Figure 8.11.1 Location of Pangkalanbun and Kumai**

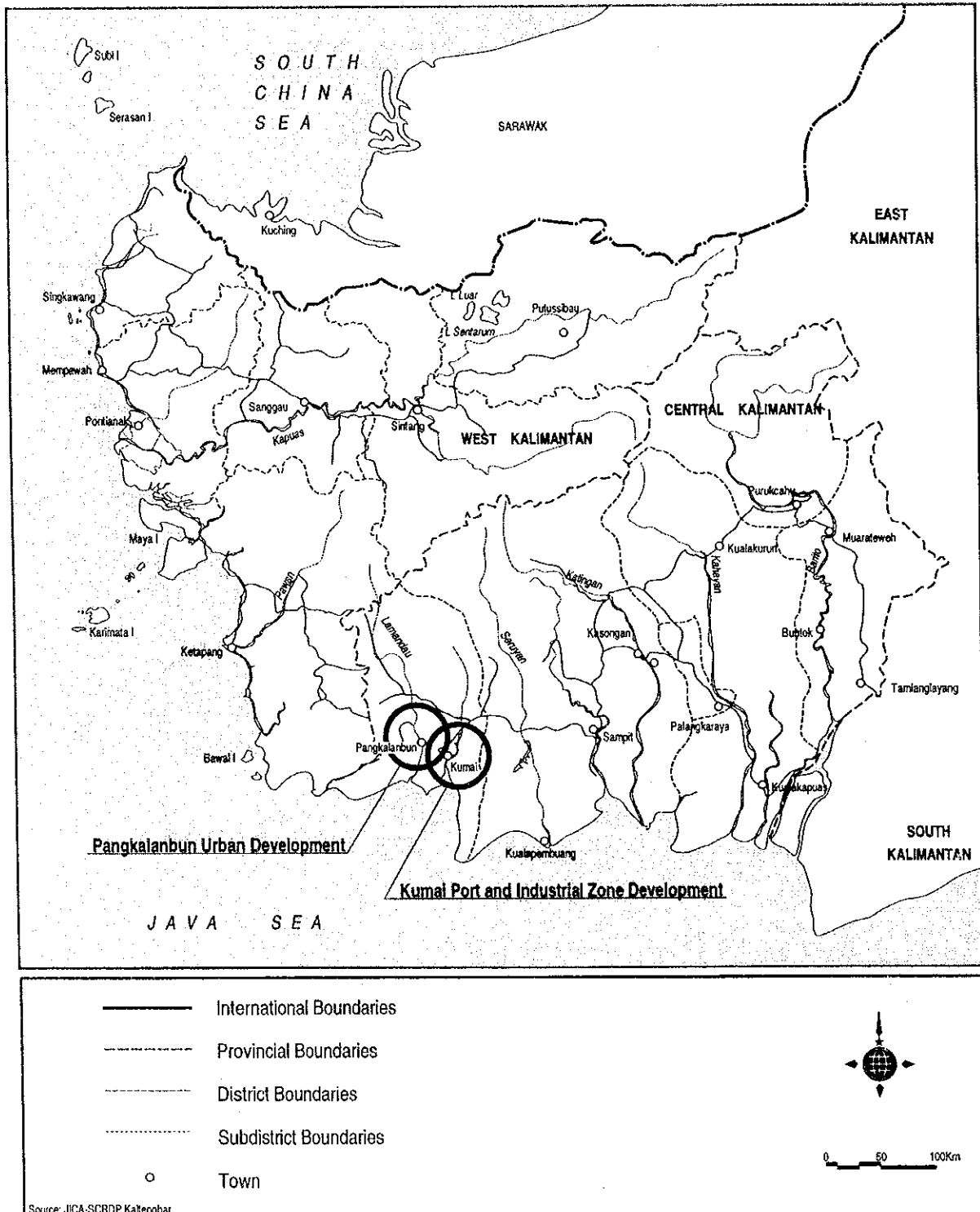
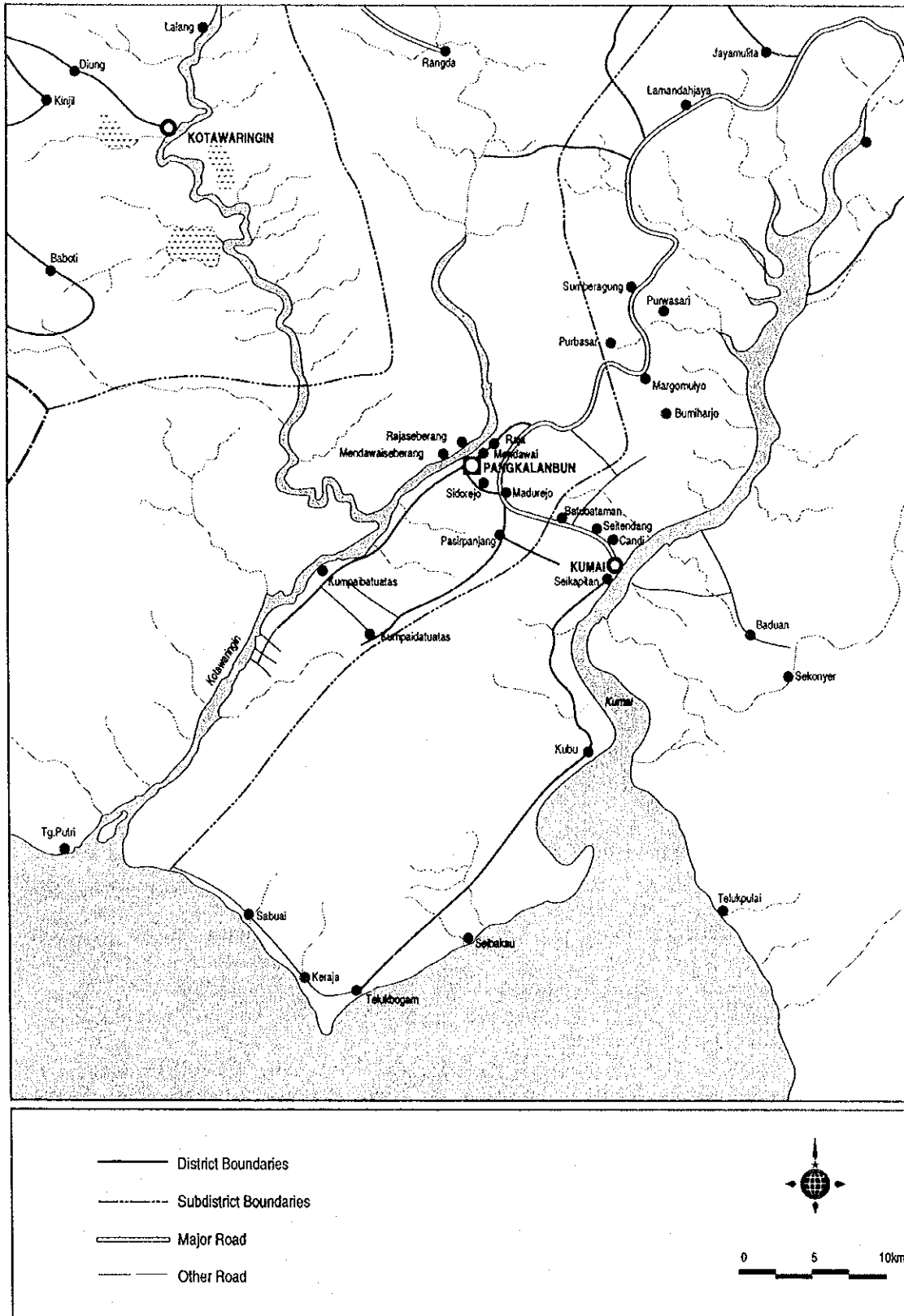


Figure 8.11.2 Pangkalanbun-Kumai Area



### 8.11.2 Kumai Port Development Project

**Title:**

Kumai Port Development Project

**Sector:**

Transportation

**Location:**

Kumai in Kotawaringin Barat District, Central Kalimantan

**Time to be Implemented:**

1998 ~ 2003: Master planning study of urban, industrial and port development

2004 ~ 2008: First phase of implementation of port development in Kumai

2009 ~ 2013: Second phase of implementation of port development in Kumai

**Institutions Responsible for Implementation:**

- Ministry of Communications
- Provincial Government

**Goals:**

- To attract private investment in industries including downstream industries utilizing crude palm oil in Kumai
- To support industrial operations in Kumai
- To promote private companies's oil palm plantation development in upland areas
- To support oil palm plantation operations in upland areas

**Rationale:**

Pangkalanbun-Kumai area have the following conditions:

- Kumai has deep sea port conditions.
- Kumai has low sedimentation partly because of its location at the mouth of a relatively short river.
- Kumai is the nearest port from the surrounding upland oil palm plantations.
- Pangkalanbun, a district capital, which could be an urban service and business center for Kumai, is closely located to Kumai.
- Pangkalanbun has direct flight connections with Pontianak, as well as with Semarang, Java.
- Pangkalanbun and Kumai are not in swamp areas, unlike the other ports, such as Sampit and Kualakapuas.
- Trans-Kalimantan Highway passes through Pangkalanbun close to Kumai.

When the Upland Ecological Development Corridor is realized in upland areas of the western part of Central Kalimantan (the districts of Kotawaringin Barat and Kotawaringin Timur) as shown in Table 8.11.1, the future hinterland population of Pangkalanbun-Kumai will be 1.4 million, and the crude palm oil (CPO) production will be 1.5 million tons per year.

This means that Kumai port can expect 1.5 million tons of cargo outgoing and 1.5 million tons of cargo incoming (0.8 million tons for fertilizer, pesticide and plantation-related goods, 0.7

million tons of general cargo for the hinterland population). Therefore, the total cargo handling would be 3 million ton per year. In addition, if oleochemical industries are established, additional supporting goods will be handled by Kumai port.

In addition, Pangkalanbun and Kumai have good potential to develop a regional urban center. In 1990, the urban population of Pangkalanbun was 24,500. In general, the size of a regional center is approximately 10 % of the hinterland population. If this general assumption applies, the urban population of Pangkalanbun and Kumai would be beyond 100,000 in the next two decades. In order to realize these development potentials of oil palm plantations and downstream industries using crude palm oil, it is necessary to have a regional port with relatively high capacity.

### **Contents of the Project:**

- Master planning study of urban, industrial and port development
- Designation of the land for a prospective expansion of the existing Kumai port or a prospective new port of Kumai, as an official plan
- Construction of port facilities (general cargo berth, liquid cargo berth, container cargo berth or ferry terminal)

### **Related Plans, Programs and Projects:**

- Kumai industrial estate development project, recommended by JICA SCRDP-Kaltengbar

### **Important Policy Conditions:**

The government recognizes the potential of upland oil palm plantation development in Central Kalimantan and the strategic location of Pangkalanbun and Kumai area

### **Contribution to Different Goals:**

The successful development of oleochemical industries and other downstream industries using crude palm oil could help to improve the business environment of oil palm plantation development. Furthermore, this enables the private oil palm plantation companies to establish good relations with upland local communities.

### 8.11.3 Pangkalanbun-Kumai Urban Development Project

**Title:**

Pangkalanbun-Kumai Urban Development Project

**Sector:**

Urban Development

**Location:**

Pangkalanbun and Kumai in Kotawaringin Barat District, Central Kalimantan

**Time to be Implemented:**

1998 ~ 2003: Master planning study of urban, industrial and port development  
2004 ~ 2008: Improvement and provision of urban infrastructure in Pangkalanbun and Kumai

**Institutions Responsible for Implementation:**

- Provincial Government of Central Kalimantan
- District Government of Kotawaringin Barat
- Directorate General of Human Settlements (Cipta Karya) and Directorate General of Highway (Bina Marga) of Ministry of Public Works

**Goals:**

- To provide urban and business services to the western part of Central Kalimantan Province, partly including the southern part of West Kalimantan Province
- To attract private investment in industries including downstream industries utilizing crude palm oil in Pangkalanbun and Kumai
- To support industrial operations in Pangkalanbun and Kumai
- To promote private companies's oil palm plantation development in upland areas
- To support oil palm plantation operations in upland areas

**Rationale:**

When the Upland Ecological Development Corridor is realized in upland areas of the western part of Central Kalimantan (the districts of Kotawaringin Barat and Kotawaringin Timur) as shown in Table 8.11.1, the future hinterland population of Pangkalanbun-Kumai will be 1.4 million, and the crude palm oil (CPO) production will be 1.5 million tons per year.

Pangkalanbun and Kumai have a high potential to attract downstream industries including oleochemical industries because of the prospective oil palm plantation development. Kumai port can expect 1.5 million tons of cargo outgoing and 1.5 million tons of cargo incoming (0.8 million tons for fertilizer, pesticide and plantation-related goods, 0.7 million tons of general cargo for the hinterland population). As a result, the total cargo handling would be 3 million ton per year. In addition, if oleochemical industries are established, additional supporting goods will be handled by Kumai port.

In addition, Pangkalanbun and Kumai have the following good conditions:

- Kumai has deep sea port conditions.

- Kumai has low sedimentation partly because of its location at the mouth of a relatively short river.
- Kumai is the nearest port from the surrounding upland oil palm plantations.
- Pangkalanbun, a district capital, which could be an urban service and business center for Kumai, is closely located to Kumai.
- Pangkalanbun has direct flight connections with Pontianak, as well as with Semarang, Java.
- Pangkalanbun and Kumai are not in swamp areas, unlike the other ports, such as Sampit and Kualakapuas.
- Trans-Kalimantan Highway passes through Pangkalanbun close to Kumai.

In addition, Pangkalanbun and Kumai have good potential to develop a regional urban center. In 1990, the urban population of Pangkalanbun was 24,500. In general, the size of a regional center is approximately 10 % of the hinterland population. If this general assumption applies, the urban population of Pangkalanbun and Kumai would be beyond 100,000 in the next two decades.

In order to take advantages of these good conditions, it is necessary to provide urban infrastructure and services, including business services, to support industrial and urban development.

#### **Contents of the Project:**

- Master planning study of urban, industrial and port development for Pangkalanbun and Kumai
- Implementation of rehabilitation works of basic urban infrastructure
- Implementation of upgrading and expansion works of urban infrastructure and services

#### **Related Plans, Programs and Projects:**

- Kumai industrial estate development project, recommended by JICA SCRDP-Kaltengbar

#### **Important Policy Conditions:**

The government recognizes the potential of upland oil palm plantation development in Central Kalimantan and the strategic location of Pangkalanbun and Kumai area

#### **Contribution to Different Goals:**

The development of a regional center, which could provide good urban and business services, helps to improve the business environment of oil palm plantation development. Furthermore, this enables the private oil palm plantation companies to establish good relations with upland local communities.

## 8.12 UPLAND ECOLOGICAL DEVELOPMENT CORRIDOR PROGRAM IN CENTRAL KALIMANTAN

**Title:**

Upland Ecological Development Corridor Program in Central Kalimantan

**Sector:**

Forestry, Agriculture and Public Works

**Location:**

Upland areas of the districts of Kotawaringin Barat and Kotawaringin Timur in Central Kalimantan, designated as the Kalimantan Upland Ecological Development Corridor

**Time to be Implemented:**

- 1999 ~ 2003: Planning study for the upland ecological development corridor program in Central Kalimantan, and designation of approximate location of the corridor's axis road
- 2004 ~ 2008: Implementation of concrete measures for the corridor formation

**Institutions Responsible for Implementation:**

- At the planning study stage: Bappenas as a coordinating agency and Directorate General of Regional Development (Bangda) of Ministry of Home Affairs, Directorate General of Highway (Bina Marga) and Directorate General of Human Settlements (Cipta Karya) of Ministry of Public Works, and Ministry of the Environment as steering committee members
- At the planning study stage: Provincial Bappeda and District Bappedas of Central Kalimantan Province as local counterpart agencies
- At the implementation stage: Provincial Office and District Offices of Central Kalimantan

**Goals:**

- To develop the upland area of Central Kalimantan associated with environmental conservation
- To develop urban centers (district level centers except administration functions)
- To provide inter-provincial and inter-provincial linkages
- To secure a sustainable livelihood for local people and their future generations

**Rationale:**

There are wide upland areas which have relatively high development potential for intensive agricultural development in Central Kalimantan. In fact, many oil palm plantation development permits have been issued by the government to private companies in the areas. However, since the areas have been left behind in the recent road network expansion, little actual investment in oil palm plantations has been realized yet.

In the lower stream areas, very unorderly development of oil palm plantations has been conducted, resulting in massive unnecessary destruction of natural forests. The upland areas are located in the middle stream areas of several river basins between peat swamp and mountainous areas, both of which are in fragile ecological conditions. More orderly development of oil palm plantations and some preventive measures against unnecessary environmental destruction should be implemented.

Moreover, poor conditions of rural roads and underdeveloped urban centers have hindered the utilization of the rural development potential in upland areas. It is necessary to pay more attention to rural livelihood in upland communities and to find practical ways to encourage the local people to participate in new economic development opportunities, such as oil palm plantation development.

In this way, there are some difficulties in developing the upland area in a sustainable manner. To achieve sustainable and balanced development in the middle stream upland areas, it is necessary to make comprehensive planned efforts at multi-sectoral area development.

The Upland Ecological Development Corridor Program is an area development program with concrete measures for a wide range of fields covering plantation development, rural development, environmental conservation, road development, urban center development, and landuse management.

The formation of the Upland Ecological Development Corridor needs an axis road running through the corridor, integrating adjacent river basins in the middle stream areas. The presence of the government's plan of the axis road could attract private investment in oil palm plantation.

The emphasis of the program should be given to the establishment of balanced development in the aspects of business economy, livelihood, physical and environment. Without proper guidance or planning, development will not be active, progress in a haphazard manner and will lead to the degradation of the natural environment and destruction of the local communities. Moreover, without concrete and implementable measures for each development objective, it is difficult to realize sustainable development of upland areas.

#### **Contents of the Project:**

- Planning study for the Upland Ecological Development Corridor establishing an area development plan and concrete measures for the following purposes:
  - environmental mitigation measures
  - urban center development measures
  - village-level development measures
  - road network development measures including cost-sharing between public and private sectors
  - oil palm plantation development measures
- Enactment of concrete measures for formulating the Upland Ecological Development Corridor
- Agreement on related regulations and law modification by all related ministries and agencies, especially by the Ministry of Forestry for conservation and development
- Construction of axis roads running through the corridor
- Improvement of tertiary urban centers in the corridor
- Guiding private companies' oil palm plantation development programs of both with and without transmigration programs

#### **Related Plans, Programs and Projects:**

- Trans-Kalimantan Highway Program

#### **Important Policy Conditions:**

- The government's acknowledgment of local people's landuse in upland areas
- Strict conservation policies for both upland forests and swamp forests
  - The policies for creating better environment for the oil palm industry are maintained.



Figure 8.12.1 Upland Ecological Development Corridor in Central Kalimantan

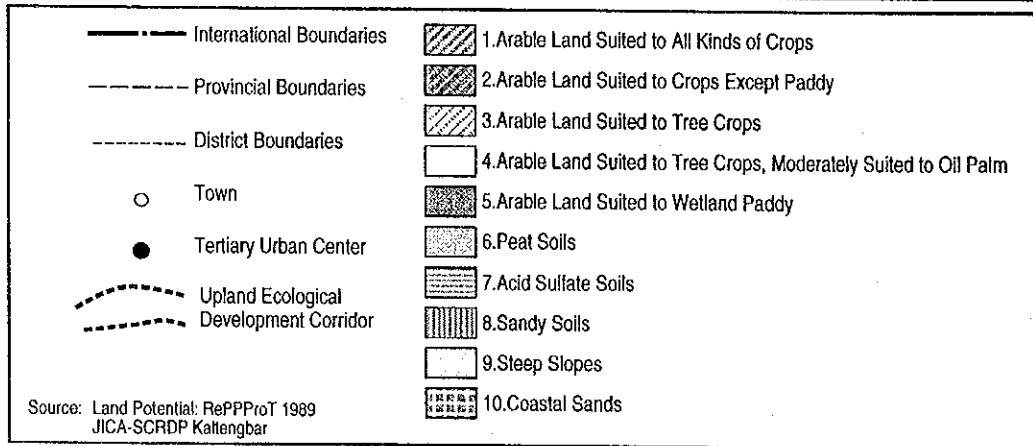
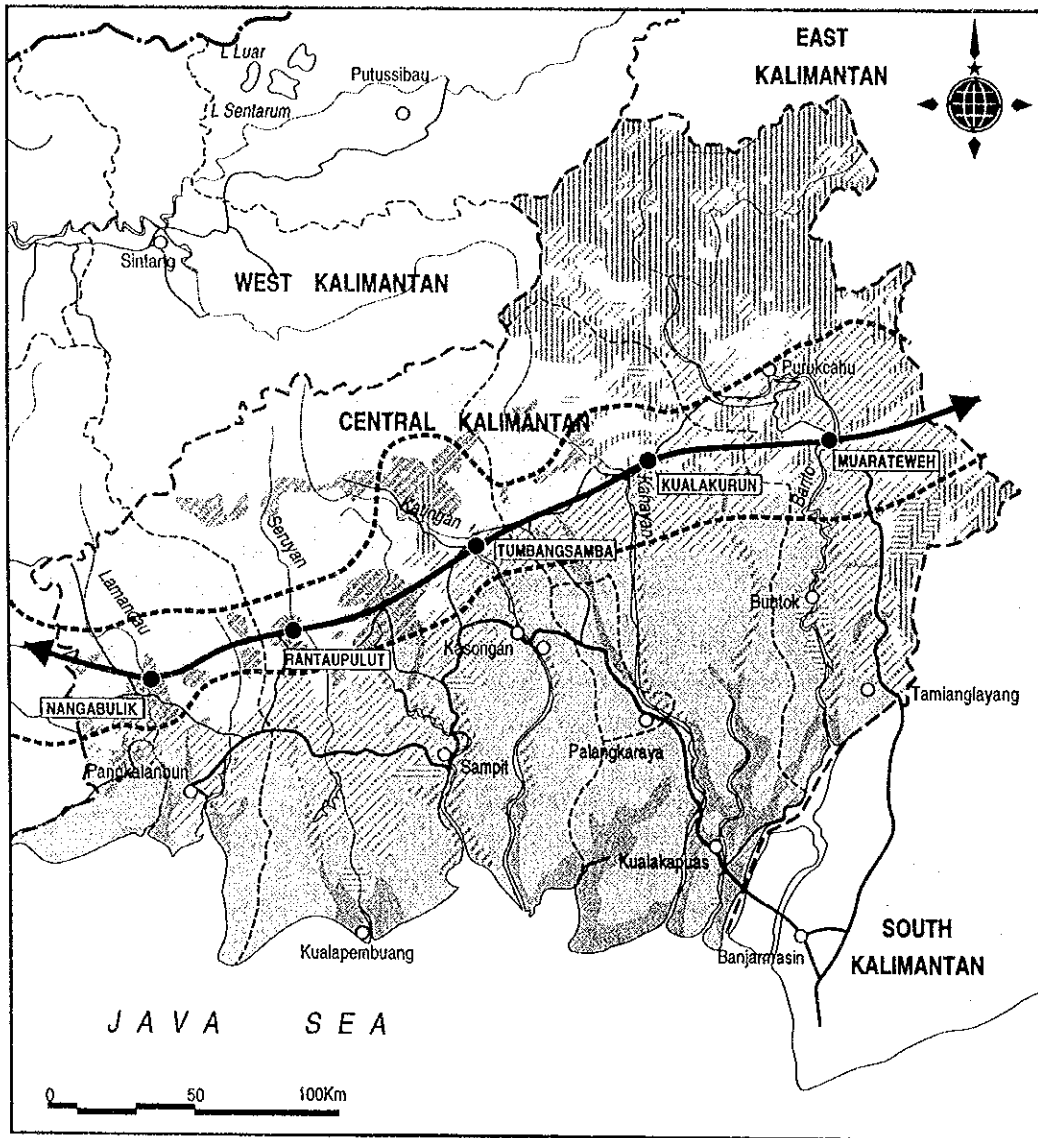


Figure 3.12.1 Upland Ecological Development Corridor in Central Kalimantan

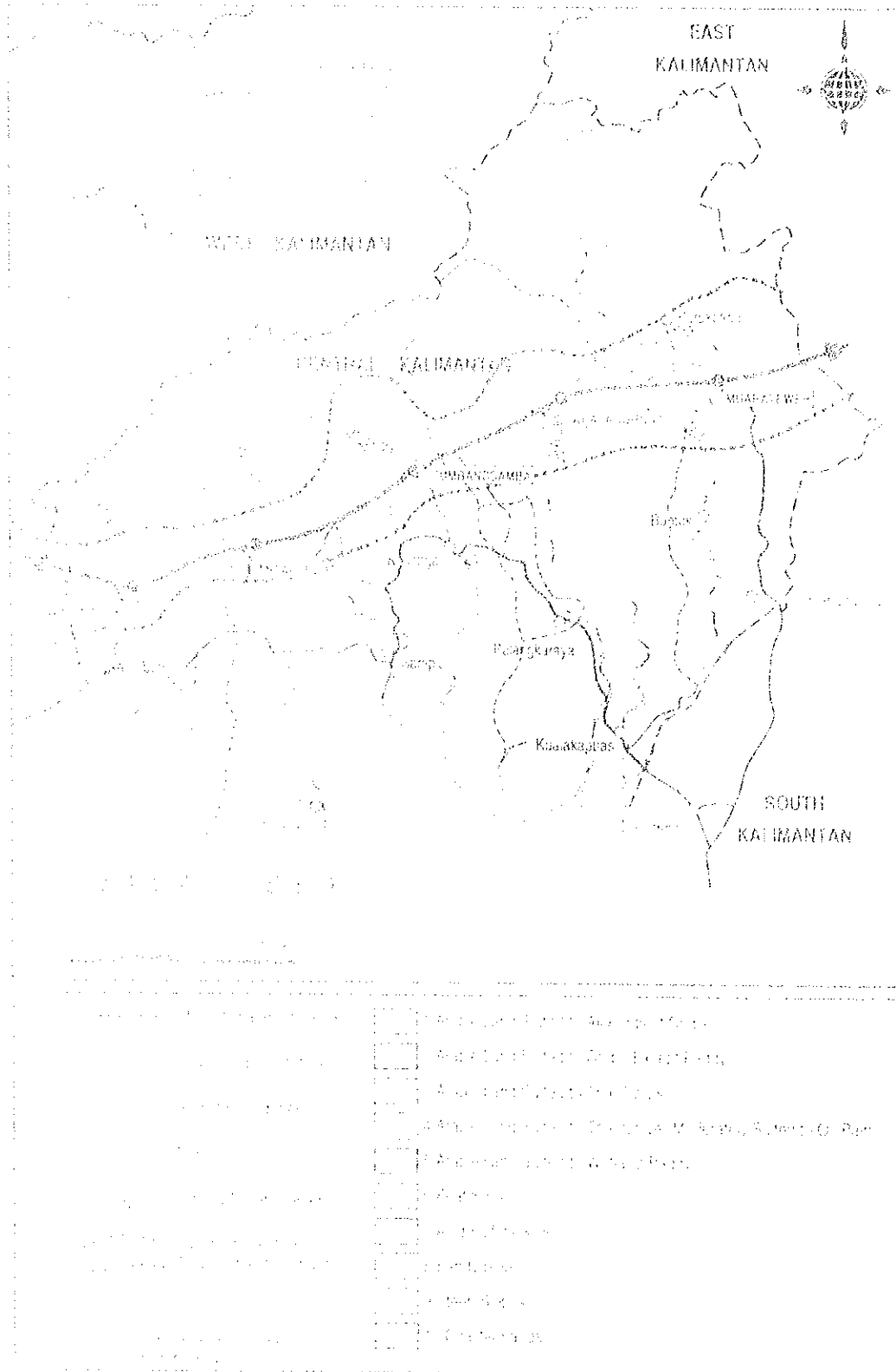
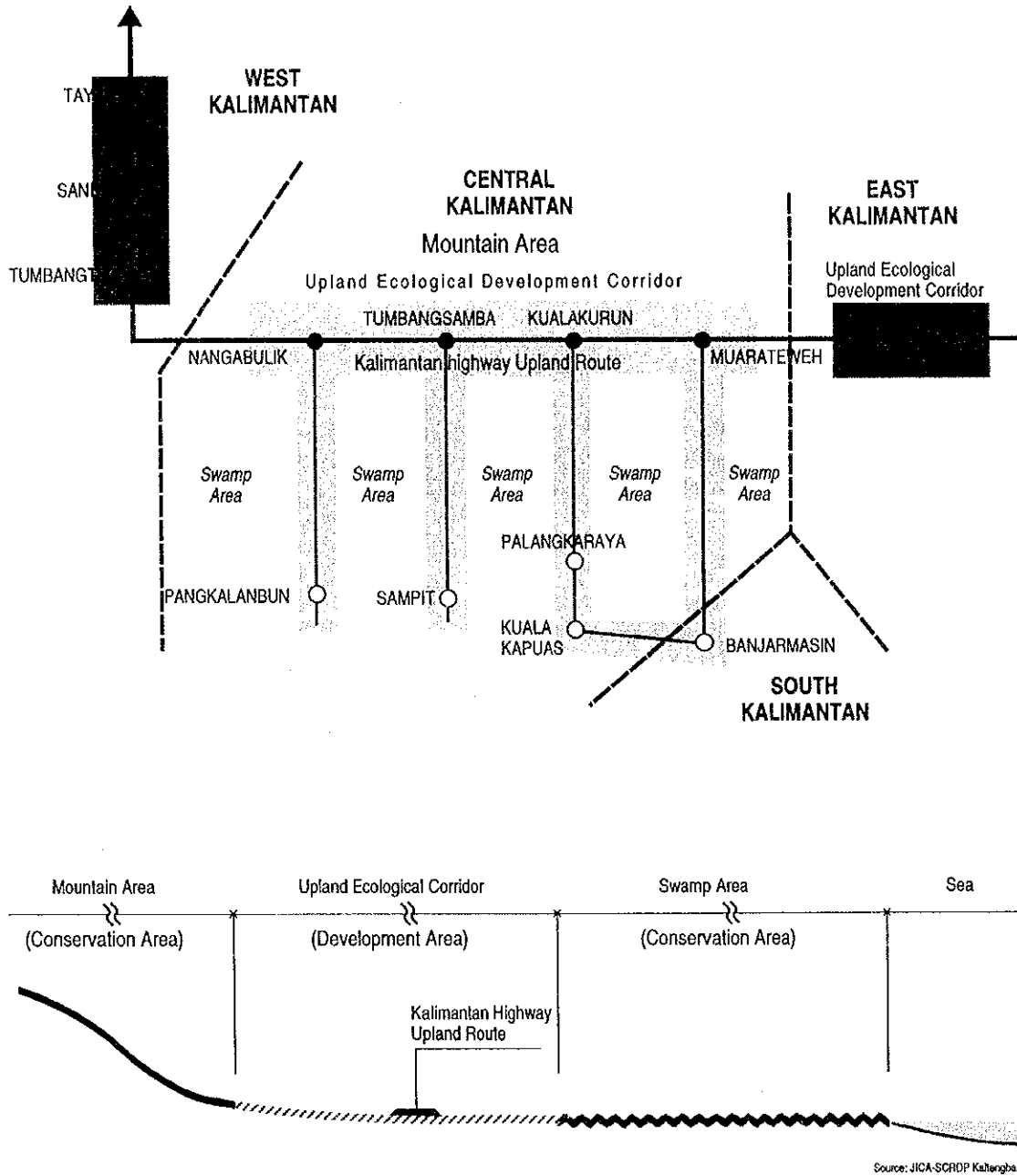
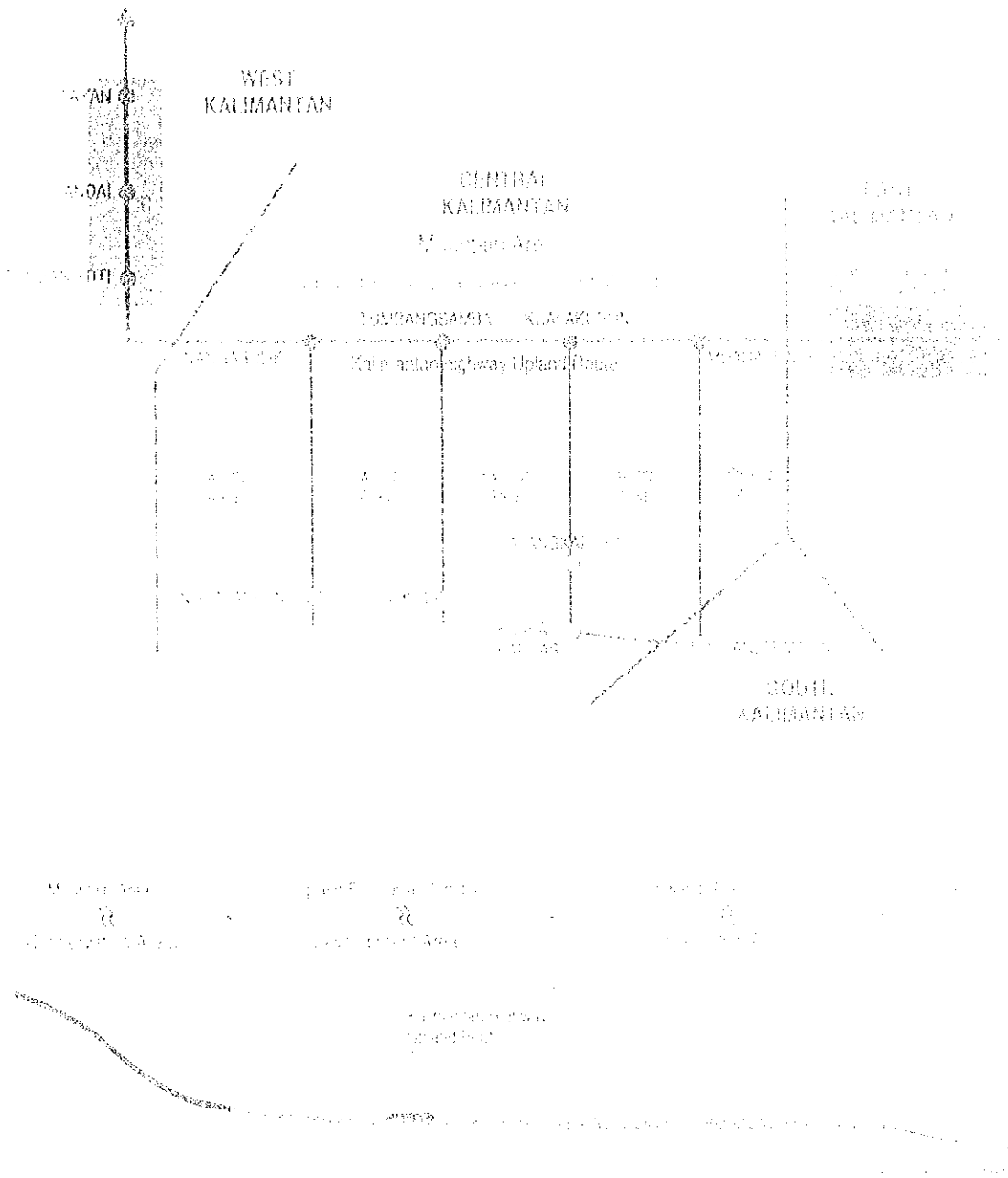


Figure 8.12.2 Upland Development Corridor Network in Kalimantan



Source: JICA-SCRDP Kaltengbar

Figure 8.12.2 Upland Development Corridor Network in Kalimantan



### **8.13 INLAND KALIMANTAN HEALTH SERVICES IMPROVEMENT PROGRAM**

**Title:**

Inland Kalimantan Health Services Improvement Program

**Location:**

Inland Areas of West Kalimantan, Central Kalimantan and East Kalimantan

**Time to be Implemented:**

1999 ~ 2003: Pilot Project by Local NGOs in one district of West Kalimantan  
2004 ~ 2008: Full-Scale Implementation in West Kalimantan, Central Kalimantan and East Kalimantan

**Institutions Responsible for Implementation:**

- In accordance with decentralization policies, the District Office of Health will be responsible for project implementation, with the supervision of the Provincial Health Office (Dinas Kesehatan) and the Regional Office of Ministry of Health (Kanwil Kesehatan)

**Goals:**

- To reduce maternal and infant death in inland Kalimantan
- To strengthen the function and capacity of district hospitals in the field of primary health
- To improve health centers and other health facilities in provision of quality health services
- To improve the quality of health volunteers at the village and subvillage levels
- To strengthen the functional working relationship among health centers and district hospitals

**Rationale:**

Good health is the basics of regional development as well as human resources development. However, maternal death and neonatal death is considered high in Central and West Kalimantan.

Low utilization of antenatal care and other basic services by women and a low percentage of deliveries attended by health staff are the cause of maternal and infant death. Low utilization of services is associated with the low quality of services and low capacity to pay for the services by the people. This situation is aggravated by the weak referral network among health services units at the district level. The distances between health centers and district hospitals also constrain effectiveness of referral in Central Kalimantan.

In inland Kalimantan, district hospitals have received relatively large and high quality resources, in terms of human resources and budgets. On the other hand, the resources allocated to health centers are limited. In this sense, it is wise to utilize the resources allocated to district hospitals more effectively for improving the services of primary health care. Strengthening health centers and district hospitals and improving their working relationship and function will enhance the quality of primary health services and hence will increase the utilization of health services.

The economic problem is one of the reasons for the under utilization of health services by the poor. Based on our study, 70% of the health expenditure is paid by the community and private sectors from their own pocket. In addition, about 70% of the people are not covered by insurance. The promotion of community health financing will increase the utilization of health services by all economic levels of the people.

## **Contents of the Project:**

### Provincial and District Levels

The function of the district hospital will be expanded not only as a referral institution but also as a training institution for health center personnel. District hospital will manage and design an apprenticeship program for health center's personnel. The specialists from the district hospital will visit health centers regularly to monitor and supervise maternal and child health activities and provide training related to maternal and child health to the health center personnel. District hospitals will also conduct preventive activities and promotion activities in the community. In district hospitals which do not have the required four specialists, specialists from the provincial hospital will be invited. The delivery and laboratory facilities and drugs necessary for comprehensive obstetric neonatal emergency services will be provided. The qualification of nurses and midwives will be improved. District hospitals will also conduct regular seminar workshops for health service units involved in maternal and child health.

Health center's doctors are expected to be health managers in their area. Hence the necessary skills to be a manager will be improved. Health centers, which are far from district hospitals, especially in Central Kalimantan will be expanded to become health centers with in-patient care. The capacity of the health center's doctor in managing basic emergency obstetric neonatal services as well as, epidemiological surveillance and community analysis so as to focus on the health center's program based on the community need, will be improved. The qualification of the health center's midwife will be improved to a bachelor degree level. Health centers will conduct regular seminar workshops and training for village midwives and traditional birth attendants (TBA). Rehabilitation of laboratories and delivery equipment and facilities as well as a maintenance budget will be provided. Transportation facilities for supervising village-based maternity clinics will be provided as well. Health centers will also send morbidity reports to the district hospitals.

### Village Level

Village-based maternity clinics will be responsible for maternal health in the village. The village midwives will be in charge of the clinics. They will train traditional health attendants in safe delivery and identification of high-risk pregnancies. They will coordinate with the TBA in managing the high-risk cases. They will also mobilize the village community to participate in community based integrated health services (posyandu). They will conduct regular supervision of the posyandu's activities. Training of community management and managing basic obstetric emergency services will be conducted for village midwives. Maternity clinic buildings and facilities and simple laboratories will be provided.

### **Related Plans, Programs and Projects:**

- The five-year's health project 4 of the World Bank
- Decentralization of Ministry of Health to local government offices of health

### **Important Policy Conditions:**

- The scheme to assign contracted medical doctors to health centers is continued.
- Administrative barriers between district hospitals and health centers are lowered.

### **Contribution to Different Goals:**

- Regional economic development will be enhanced by a higher standard of community health.
- As utilization of the health service units are increased, transport facilities as well as areas around those facilities will be developed.

## **8.14 INLAND KALIMANTAN EDUCATION SERVICES IMPROVEMENT PROGRAM**

### **8.14.1 Inland Kalimantan Participatory Primary School Management Project**

**Title:**

Inland Kalimantan Participatory Primary School Management Project

**Sector:**

Education and Human Resources Development

**Location:**

- Inland Villages of West Kalimantan, Central Kalimantan and East Kalimantan

**Time to be Implemented:**

1999 ~ 2003: Preparation and Pilot Project Implementation in West Kalimantan  
2004 ~ 2018: Full-Scale Implementation in West Kalimantan, Central Kalimantan and East Kalimantan

**Institutions Responsible for Implementation:**

- Provincial and District Offices of Education and Culture
- Village school development committee

**Goals:**

- To improve the quality of education in isolated inland schools staffed by 6 or less teachers including the schoolmaster
- To reduce the educational disparity between rural and urban areas
- To increase community participation in school management which includes day-to-day monitoring, planning and supervision, evaluation of teachers (including disbursement of a remote area allowance), educational data compilation and library operation
- To strengthen the support network between government authorities and isolated inland schools
- To activate the use of the school library: Support to the library plays an important role to provide an incentive for community to be interested in overall school management and to provide a link between the community and Dinas through tangible benefits such as book provision and regular consultation services

**Rationale:**

Human resources development is essential for sound and sustainable regional development as well as national development. The government of Indonesia perceives that education is one of the major tools to achieve human resources development and that improvement of school education quality is highly important. However, in inland Kalimantan, even the primary school education system has not functioned appropriately.

By implementing this project, the following are expected:

- The community participation will reinforce management capabilities and ensure the accountability of the schools.

- The teachers' sense of responsibility will increase so that they will carry out their own duties appropriately and effectively.
- The active use of a school library will enhance knowledge and encourage life-time learning.
- The teachers and communities will receive necessary services such as training for school management, textbooks and supplementary readers.
- The pupils will improve their performance so that difficulty to proceed to successive level of education will be eliminated.

### **Contents of the Project:**

#### 1999 ~ 2003

Stage I (1 year): Identification of pilot project sites and preparation for the project

Stage II (2 years): Pilot project implementation

- Training for schoolmasters, teachers, community representatives and volunteers
- Conducting the tour to the sites in order to provide incentives and consultation for the school library operation

Stage III (1 year): Preparation of full-scale implementation

- Evaluation and necessary modification
- Visiting villages for project explanation and promotion
- Identifying participating villages
- Training for the major participants

#### 2004 ~ 2018

Full-scale implementation

### **Related Plans, Programs and Projects:**

- Universal Basic Education Program

### **Important Policy Conditions:**

- Awareness and understanding by the government of importance of community participation

### **Contribution to Different Goals:**

- Improvement of basic cognitive ability of people which is essential to acquire advanced skills and knowledge in order to play active roles in sustainable economic development.
- The empowerment of the rural population.



### **8.14.2 Inland Kalimantan Local Teacher Foster Project**

**Title:**

Inland Kalimantan Local Teacher Foster Project

**Sector:**

Education and Human Resources Development

**Location:**

The villages in inland remote areas of West Kalimantan, Central Kalimantan and East Kalimantan

**Time to be Implemented:**

1999 ~ 2003: Pilot Project and Project Design

2004 ~ 2018: Full-Scale Implementation

**Institutions Responsible for Implementation:**

- Provincial and District Offices of Education and Culture
- Village committee for each location of the project

**Goals:**

- To increase the number of more devoted primary school teachers
- To increase the number of primary school teachers who are from local communities in Inland Kalimantan
- To improve the performance of primary schools in inland Kalimantan

**Objectives:**

- To give scholarships to children who are willing to become primary school teachers in their localities by seeking higher education

**Rationale:**

It is recognized by the government that human resources development through the improvement of school education quality is essential. However, in inland Kalimantan, the lack of devoted primary school teachers hinders the universal basic education.

Since the local origin teachers are more responsible for the education in their localities, this project adopts the strategy for increasing the number of local origin teachers. This project would result in the following effects:

- The project will help to provide teachers for schools in remote areas which have no or few local origin teachers, or suffer from a shortage of teachers.
- The project will reduce the shortage of teachers in remote areas.
- The difficulties for children to proceed to successive levels of education will be eliminated.
- Prospective local origin teachers will foster the involvement of the community in school management.

## **Contents of the Project:**

### 1999 ~ 2003

Stage I (1 year): Preparation for the project and disseminating information on the scholarship

Stage II (1 year): The first selection of candidates

Stage III (3 years):

- The second, third and fourth selection
- Follow-up of the first, second and third group
- First round of evaluation (the first group is supposed to graduate and start to work as teacher, so the first outcome of the project should be evaluated.)

### 2004 ~ 2018

- Modification and continuation of the project based on lessons learned in the first 5 years of implementation

## **Related Plans, Programs and Projects:**

- Universal Basic Education Program

## **Important Policy Conditions:**

- Full support from the organizations dealing with preservice teacher education and the recruitment of teachers as follows:
  - Dinas of Education and Culture and the Governor's office
  - FKIP (the faculty of teacher education in the national universities)
  - Directorate General of Higher Education, Ministry of Education and Culture

## **Contribution to Different Goals:**

- Facilitating community participation and effective use of local human resources

### **8.14.3 Kalimantan Vocational Senior High School Project**

**Title:**

Kalimantan Vocational Senior High School Project

**Sector:**

Education and Human Resources Development

**Location:**

- West Kalimantan, Central Kalimantan, South Kalimantan and East Kalimantan

**Time to be Implemented:**

2004 ~ 2008: Planning and Implementation

**Institutions Responsible for Implementation:**

- Regional Office of Ministry of Education and Culture
- Other related government agencies (agriculture, forestry, industry and tourism)

**Goals:**

- To enhance the quality of existing vocational senior high schools (SMKs) and establish new vocational senior high schools (SMKs), especially agricultural vocational senior high schools (STMPs), in strategic areas targeted for regional development
- To improve equity in access to vocational education in inland remote areas which are currently undeserved
- To foster the partnership and cooperation between schools and communities, especially with local farmers
- To encourage women's participation as both teachers and students

**Rationale:**

The Government of Indonesia considers that vocational education at the senior high school level plays an important role to impart the appropriate skills and knowledge to the young who will undertake the country's economic development.

The project will help to provide qualified local human resources to meet the demands of each region's specific potentials and needs in sustainable regional development

**Contents of the Project:**

- Development planning for new vocational senior high schools
- Design and construction of new vocational senior high schools
- Rehabilitation of existing vocational senior high schools
- Teacher training
- Curriculum evaluation and development
- Delivery of teaching and learning materials
- Library and laboratory development
- Development of facilities for practice
- Development of boarding facilities

- Scholarship provision (especially for female students)
- School management improvement
- Monitoring and evaluation
- Partnership development with the business sector and surrounding communities

**Related Plans, Programs and Projects:**

- Small and Medium Enterprises Promotion Program

**Important Policy Conditions:**

- Cooperation and assistance from various economic sectors
- Human resource development plan based on the long-term regional development plan

**Contribution to Different Goals:**

- Better qualified local human resources will be available to various economic sectors.
- Advanced and appropriate skills and technology are shared by various actors for sustainable regional development.

## **8.15 WEST KALIMANTAN REGIONAL WATER RESOURCES DEVELOPMENT AND SUPPLY PROGRAM**

**Title:**

West Kalimantan Regional Water Resources Development and Supply Program

**Sector:**

Water Resources

**Location:**

- The districts of Pontianak, Sambas and Sanggau of West Kalimantan

**Time to be Implemented:**

2004 ~ 2008: Planning Study

2009 ~ 2018: Implementation

**Institutions Responsible for Implementation:**

- Provincial Office of Public Works (Dinas PU) of West Kalimantan

**Objectives:**

- To secure water supply to cope with future increasing domestic and industrial water demands
- To improve the quality of supplied water

**Rationale:**

The river water of the middle stream of the Kapuas is of good quality unlike the upper stream and the down stream due to the presence of huge peat swamps. Pontianak is expected to be a large urban agglomeration with a population of one million, and other coastal towns between Pontianak and Pemangkat are also becoming larger. The coastal belt between Pontianak and Pemangkat has relatively highly accumulation of active small and medium enterprises. Their suburban and surrounding rural areas of these towns are to become agricultural production areas of high-value crops for urban centers. Good quality river water is a precious water source for future water supply to these growing urban and rural areas.

**Contents of the Project:**

- Study of the future water demand in this area and water sources
- Surveys and planning for raw water conveyance facility
- Construction of a water intake and a raw water conveyance facility

**Related Plans, Programs and Projects:**

- KAPET Sanggau
- Natuna Island development

**Contribution to Different Goals:**

- This project contributes to the improvement of living conditions at rural area and to regional development.

**Figure 8.15.1 Service Area of the Regional Water Resources Development and Supply Program**

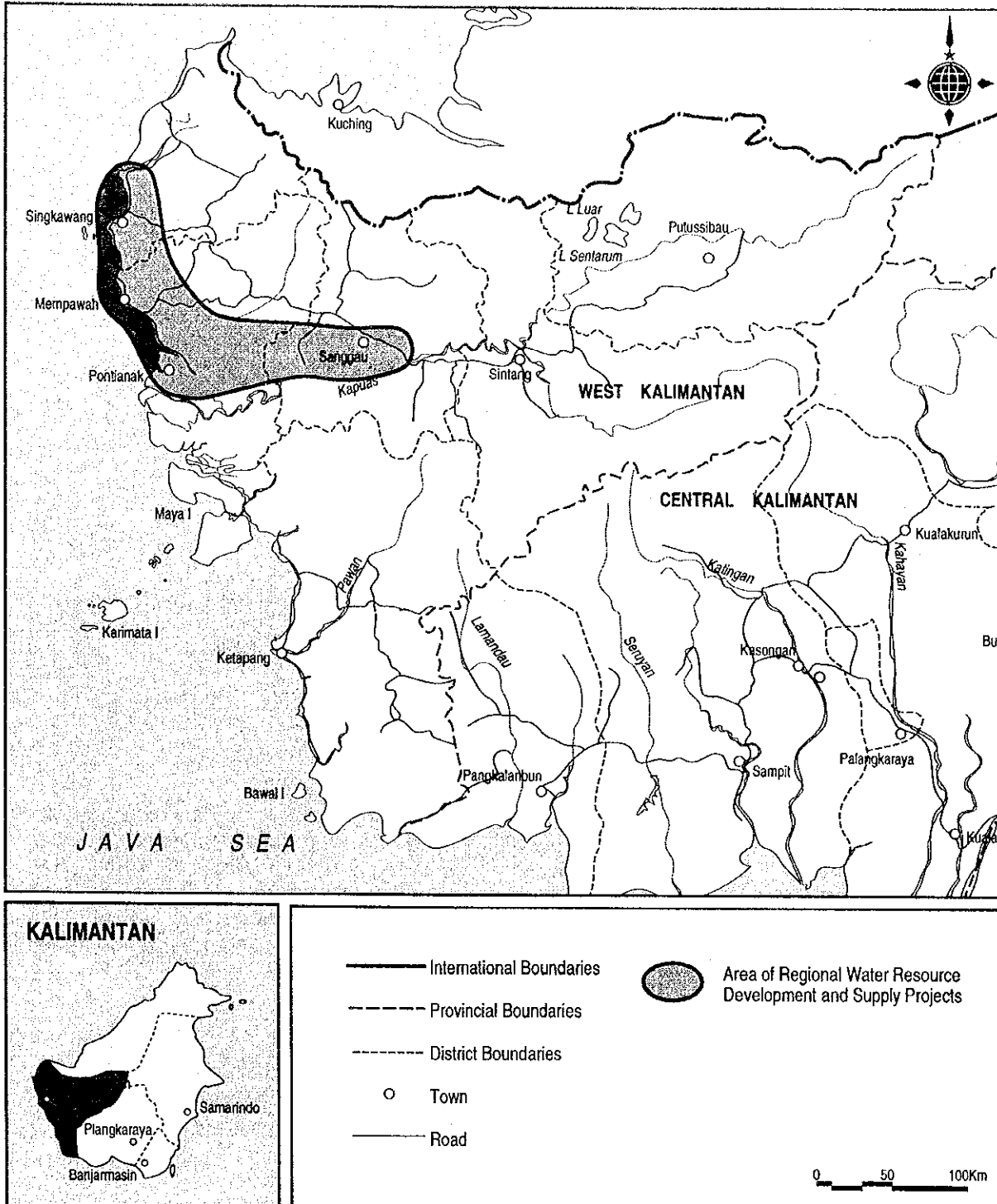
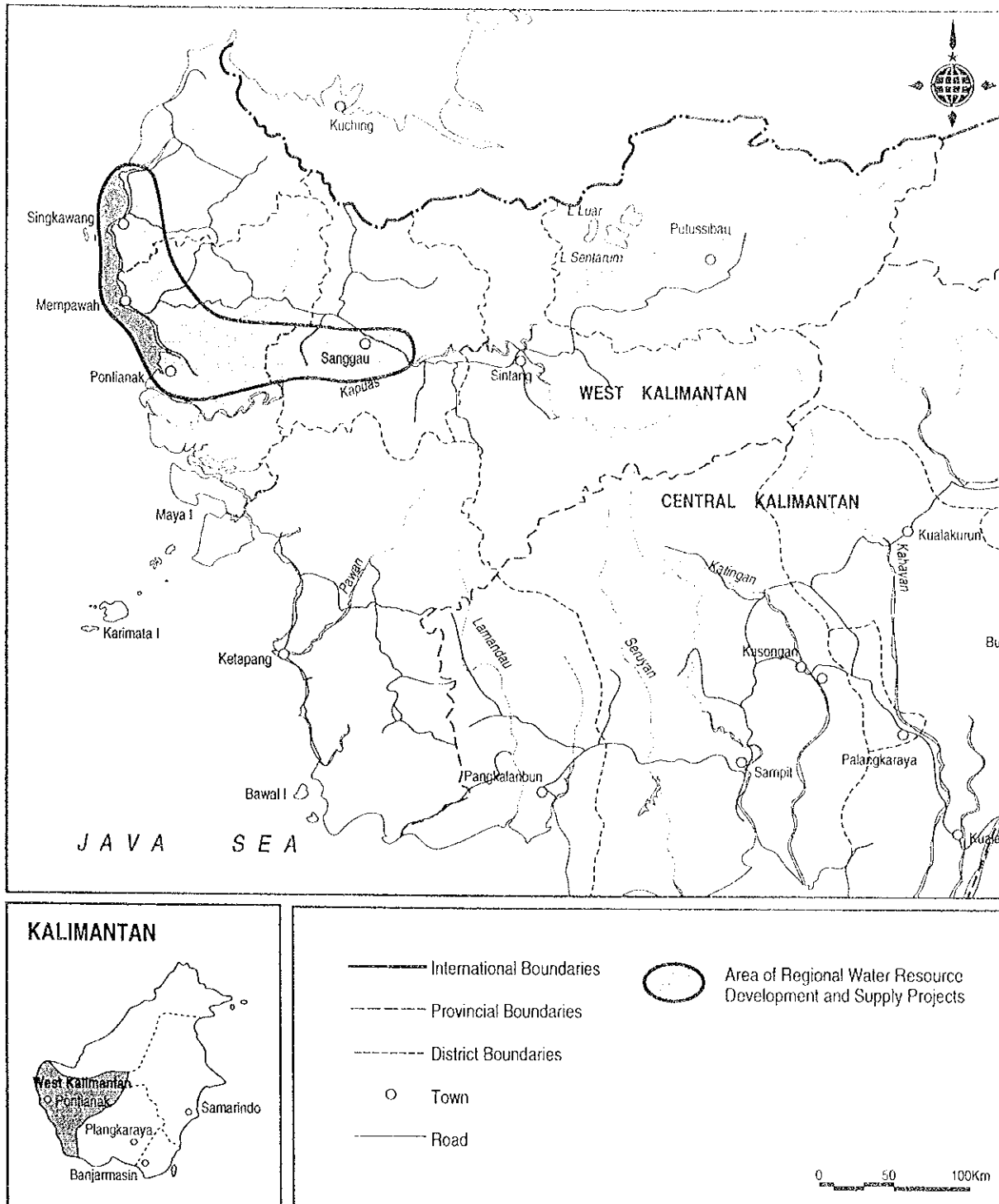


Figure 8.15.1 Service Area of the Regional Water Resources Development and Supply Program



## 8.16 KALIMANTAN POLLUTION MONITORING PROGRAM

**Title:**

Kalimantan Pollution Monitoring Program

**Sector:**

Environment, Industry, Mining and Agriculture

**Location:**

- Main office/ laboratory in Pontianak, West Kalimantan and Palangkaraya, Central Kalimantan
- Monitoring stations: Tayan (Kapas river in West Kalimantan), Kualakapas (Kapas river in Central Kalimantan) and Kumai (Kumai river)

**Time to be Implemented:**

1999~2003: Study for a pollution monitoring systems  
2004 ~ 2008: Implementation

**Institutions Responsible for Implementation:**

- Bureau of the Environment of Provincial Government

**Objectives:**

- To prevent environmental pollution and to improve the quality of the environment
- To develop environmental policies and strategies
- To develop appropriate pollution control technologies
- To improve the pollution control management system
- To improve the environment impact assessment system

**Rationale:**

In West and Central Kalimantan, any environmental or pollution monitoring systems have not yet been established although they are prerequisite for effective environmental management. Even the laboratory testing of water and air still depends on the facilities in Java. The prospective industrial development in the two provinces are so-called polluting industries, such as pulp and CPO factories. Such industries would be located in the middle stream areas. Their downstream areas, especially urban population, would receive negative impacts of unmonitored operation of the industries.

**Contents of the Project:**

- Study for establishing a pollution monitoring system in West and Central Kalimantan
- Study for Environmental management for informal gold mining in West Kalimantan
- Establishment of two (2) main offices with staff in each local government office
- Establishment of three (3) monitoring stations with staff and equipment
- Collection of comprehensive sets of reference materials
- Development of an education and training program

**Related Plans, Programs and Projects:**

- Environmental impact assessment process (AMDAL)
- Local environmental regulation (PERDA)



## **8.17 KALIMANTAN FISHERIES PROMOTION PROGRAM**

### **8.17.1 Development of Kalimantan Inland Fisheries Research Institute Project**

**Title:**

Development of Kalimantan Inland Fisheries Research Institute Project

**Sector:**

Fisheries

**Location:**

- West Kalimantan, Central Kalimantan, South Kalimantan and East Kalimantan

**Time to be Implemented:**

1999 ~ 2003: Needs identification study and promotion of the Kalimantan System Research  
2004 ~ 2008: Establishment of research stations with improved facilities

**Institutions Responsible for Implementation:**

- Directorate General of Fisheries Ministry of Agriculture and the local governments

**Objectives:**

- To conserve inland fisheries resources
- To promote inland fisheries
- To monitor inland fisheries resources
- To monitor inland water quality

**Rationale:**

The peculiar nature of both provinces' inland open water systems, which have served for creation of very diverse ecological systems, is now being exposed to the risk of extinction. Deforestation changes the inland water-flow systems and the original water characteristics. Plantation development using lime ashes, chemical fertilizers and pesticides also changes the original water characteristics and original ecosystems existing in the inland open water areas. The inland water fish and crustaceans resources of diverse nature may also be affected by these changes. Minor fish species that live in waters or in areas of specific conditions may not sustain their living longer when their peculiar optimum living conditions are lost. Only those fish species that are strong and capable of surviving in changing conditions or acclimatizing themselves to unfavorable conditions may remain and dominate the ecosystems, thus resulting in the loss of original nature of Kalimantan. In this way, the inland open water fisheries resources are being exposed to destructive elements and are very vulnerable.

Therefore, it is strongly believed that maintenance of the current inland open water surface and conservation of the existing inland water ecological systems are essential for sustainable utilization of the resources therein.

**Contents of the Project:**

- Establishment of two (2) primary hatchery/ research stations with improved and upgraded infrastructure and facilities in each province

- Implementing research activities in the established research stations
  - To survey and research of peculiar inland water surface areas
  - To monitor fisheries and other human activities utilizing the inland open water surface
  - To remove and prevent any activity detrimental to conservation
  - To plan and set sustainable and appropriate manners of inland water resources utilization
  - To assist any other activities in the management and control of inland water resources

**Related Plans, Programs and Projects:**

- Improvement and upgrading the planning of hatchery/ nursery by private companies
- Training program for technological personnel

**Important Policy Conditions:**

- Swamp and forest area conservation

**Contribution to Different Goals:**

- Industry development in Kalimantan (fisheries processing industry development)
- Food supply for Kalimantan

### **8.17.2 Kalimantan Inland Fish Landing Place Improvement Project**

**Title:**

Kalimantan Inland Fish Landing Place Improvement Project

**Sector:**

Fisheries

**Location:**

Existing Inland Fish Landing Places (Tempat Pelelangan Ikan or TPI) in West Kalimantan and Central Kalimantan

**Time to be Implemented:**

1999 ~ 2003: Needs identification and improvement plan making

2004 ~ 2008: Implementation

**Institutions Responsible for Implementation:**

Fisheries Department of Provincial Government

**Goals:**

- Increase of inland fishermen's incomes
- Improvement of preservation and hygienic conditions for inland fish handling

**Rationale:**

The existing inland fish landing places along rivers are of minimal standards resulting in poor preservation quality and hygienic conditions of fish caught and marketed.

The fishing activities are wide spread and of very small-scale. The fish catches at any fish landing places are in small volumes. The consumption markets are also diverse and spread over a large area. Therefore, any improvement or upgrading of infrastructure and facilities will have to be on a small-scale to avoid under-utilization.

**Contents of the Project:**

- Identification of inland fish landing places which need improvement
- Design of the improvement of inland fish landing places
- Improvement and construction of inland fish landing places including ice-machines and construction of freezers
- Improvement of fish market places including the improvement of sanitation and garbage situations

**Important Policy Conditions:**

- The government strongly emphasizes the importance of inland fisheries resources conservation.

## **8.18 KALIMANTAN SMALL AND MEDIUM ENTERPRISE PROMOTION PROGRAM**

### **Title:**

Kalimantan Small and Medium Enterprise Promotion Program

### **Sector:**

Agriculture and Manufacturing

### **Location:**

West Kalimantan, Central Kalimantan, South Kalimantan and East Kalimantan

### **Time to be Implemented:**

1999 ~ 2003: Pilot Project in West Kalimantan and Central Kalimantan

2004 ~ 2008: Implementation in Central Kalimantan, South Kalimantan and East Kalimantan

### **Institutions Responsible for Implementation:**

- Provincial Government
- Bank of Indonesia

### **Goals:**

- To develop diversified regional economies
- To promote the development of small and medium scale enterprises

### **Objectives:**

- To formulate a suitable policy framework for small-scale enterprises (SSEs) promotion at the provincial level
- To establish a viable small and medium enterprise support services structure
- To identify promising SSEs in target areas
- To provide direct technical assistance to promising SSEs in target areas

### **Rationale:**

The regional economies of the Kalimantan provinces are characterized by a fragile structure where few resource-based modern manufacturing units (heavily concentrated in the fields of wood and plantation based processing ) are piggybacked on the primary sector. The large-scale plantation sector in combination with the modern resource-based processing manufacturing sector, though presently of outstanding importance in terms of production and foreign exchange earnings, is not large enough to generate employment opportunities at an increasing pace and rural and urban incomes. To the contrary, the wood processing industry, in particular the plywood manufacturing industry, is in absolute decline due to timber resource depletion.

The small scale and small and medium size enterprise sector, though of less importance in terms of contribution to output growth, is essential in terms of widespread employment and therefore stable income generation in both, rural and urban areas. This sector is, however, of outstanding importance in terms of short to long-term social stability, as well as for achieving a relative balance between income developments in rural and urban areas. In addition, SSE sector development may be a useful catalysator for a healthy linkage development between the primary sector (in particular plantation-based smallholder production) and downstream industries.

The potential resources of the vast SSE sector remain, however, so far untapped, due do a lack of a suitable policy approach at the provincial level, the quasi non-existence of a viable support structure, and the lack of adequate coverage by existing promotional schemes, inter alias, in the field of SSE financing (for both, working capital and investment financing). The Government of Indonesia is obliged under the terms of the Memorandum of Understanding with the IMF to initiate, formulate and implement a national level action program for the promotion of SSEs. This measure, which is not only intended as some sort of short-term "social safety net" measure, aims at harvesting the long-term potentials for employment and income generation in the SSE sector. There is also discussion to extend such action programs at the provincial level, though no final decision has been made yet on this matter by Bappenas.

### **Contents of the Project**

The program will consist of the following three major components :

- Component 1: Study on policy and regulatory frameworks,
- Component 2: Assistance in the establishment of a viable long-term support structure,
- Component 3: Pilot project - provision of direct technical assistance to promising SSEs, and
- Component 4: Full-scale implementation in Kalimantan provinces.

The project's main gist is implementation of a pilot project scheme with a view to arrive at the following major outputs :

To gain in-depth operational experience with SSE promotion through the provision of direct technical assistance to SSEs in pilot project areas. There are on-going financial sector and non-financial SME promotion schemes funded by various bilateral and multilateral donors. However, many of these activities are rudimentary (either only in the technology field, or only financing, and so on), their activities are heavily concentrated on Java or in North Sumatra, and they are not geared at the long-term establishment of a viable SSE/SME promotional structure, but at the partial alleviation of performance problems.

The underdevelopment and non-existence of a harmonized overall financial and non-financial sector SSE/SME support structure is probably the largest obstacle to the further development of the SSE/SME sector. Assistance efforts will remain partial and rudimentary, unless such an overall favorable structure is put in place. Hence, a second major output element of the project will be to replace the rudimentary efforts by a holistic approach. The "Policy and Regulatory Framework" component of the project will address all those policy issues in the overall regulatory framework, which have an anti-SSE/SME bias (for example in the areas of import/export licensing, or distribution regulations).

To recommend a viable long-term oriented financial and non-financial SSE/SME support structure for the Western part of Kalimantan, which may serve as a model for other provincial level SSE/SME financial and non-financial support services structures.

### **Related Plans, Programs and Projects:**

- Memorandum of Understanding between the IMF and the GOI of April, 1998.
- SME Project by GTZ.
- Various financial sector support projects implemented through Bank of Indonesia, including "OECF/AJDF", and "EXIM IV/V".

### **Important Policy Conditions:**

- The central government agencies acknowledge the significance of regional initiatives based on regional development planning by local governments.
- The GOI adopts the national level SME action plan currently under consideration, and also adopts provincial level plans.

## 8.19 KALIMANTAN FOREST AND LAND FIRE DISASTER MANAGEMENT PROGRAM

**Title:**

Kalimantan Forest and Land Fire Disaster Management Program

**Sector:**

Disaster Management and Forestry

**Location:**

West Kalimantan, Central Kalimantan, South Kalimantan and East Kalimantan

**Time to be Implemented:**

1999-2003: Master Planning Study for Forest and Land Fire Disaster Management in West Kalimantan

2004-2008: Implementation of Forest Fire Disaster Management in West Kalimantan

2009-2018: Implementation of Forest Fire Disaster Management in West Kalimantan, Central Kalimantan, South Kalimantan and East Kalimantan

**Institutions Responsible for Implementation:**

- National coordination board of disaster management
- Office of the State minister of the environment
- Ministry of Forestry and Plantation
- Provincial governments

**Rationale:**

The Region in Transition

The forest and land fires in 1997 helped to change our views on forest fires in Kalimantan and other areas. In 1982 East Kalimantan's lowland forests were hit by serious forest fires. In that case, it was considered that the forest fires were caused by heavy logging operations and long drought due to El Nino. On the other hand, in addition to that long drought, the 1997 forest fires in West and Central Kalimantan were associated with land development practices for plantation development (both oil palm and industrial trees). Moreover, in 1997, wide areas of peat swamp forests caught fire, resulting in land fires producing a huge amount of smoke.

Since the middle of 1980s, West and Central Kalimantan have been in a transition in terms of economy and land use, influenced by road development as well as oil palm and pulp wood plantation development. Timber production by logging operations has decreased gradually due to rapid timber resource depletion. In the future, more plantations are expected to be developed in Kalimantan, so that the possibility of forest and land fires becomes higher.

Road development connecting downstream towns with upland areas is an inevitable direction of regional development. However, since the downstream towns are located in the midst of peat swamp areas, road development tends to provide access to swamp forest areas, resulting in the deterioration of swamp forest areas along the roads. This has resulted in fires of peat soils (land fires) of the swamp areas along the roads. Since the accumulated peat in the swamp areas of Kalimantan is huge, peat swamp forest fires (land fires) are considered to be chronic.

Forest Fires : a Disaster to Regional Environment and Local Communities

Under the unstable global climate, now it is considered that the 1997 forest and land fires in Sumatra and Kalimantan were not a single incident, but that such region-wide forest and land

fires tend to be repeated at intervals of several years. On the other hand, the 1997 forest and land fires brought huge disastrous damages not only to natural forests and plantation crops but also to business operations, people's livelihoods and people's health in the region.

In these senses, forest and land fires of this kind are regarded as disasters. Therefore, the necessary measures against such forest fires can be formulated more effectively when those measures are considered as disaster management, covering various disaster events from disaster impact, response, recovery, development, prevention, and mitigation, to preparedness.

Implication of Forest Fires: the Need for Long-Term and Comprehensive Disaster Management

Forest fire prevention is only part of the necessary actions and measures for forest fire disaster management. Forest fire disaster management requires a variety of efforts ranging from short-term actions to long-term efforts against forest fires, covering not only those in the forestry sector but also those in the sectors of plantation, landuse, village development and education.

**Contents of the Project:**

- To conduct a master planning study of forest fire disaster management in West Kalimantan
- To conduct a pilot project by implementing concrete actions for forest fire disaster management in West Kalimantan
- To establish institutional arrangements for enabling forest fire disaster management practices
- To implement a full-scale forest fire disaster management measures in West Kalimantan, Central Kalimantan, South Kalimantan and East Kalimantan

**Related Plans, Programs and Projects:**

- Forest fire prevention projects by JICA and GTZ
- Study project on forest fire action plan funded by ADB

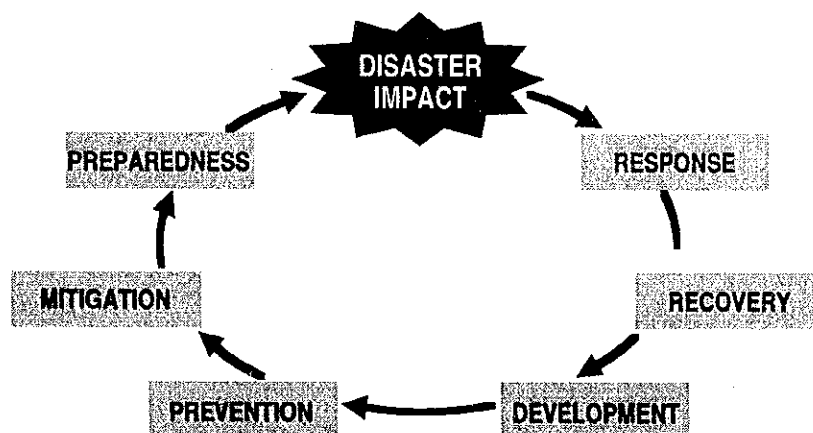
**Important Policy Conditions:**

- The government needs to change the emphasis in actions concerning forest fires from forest fire prevention to disaster management.

**Contribution to Different Goals:**

- The measures taken to improve the preparedness for forest fire disasters are useful for avoiding negative impacts on social and community development.

**Figure 8.19.1 Cycle of Disaster Management**



Source: Taken from ADB (1991) Disaster Management : A Disaster Manager's Handbook

## 8.20 KALIMANTAN TOURISM DEVELOPMENT PROGRAM

**Title:**

Kalimantan Tourism Development Program

**Sector:**

Tourism

**Location:**

West Kalimantan, Central Kalimantan, East Kalimantan and South Kalimantan

**Time to be Implemented:**

1999 ~ 2003: Pilot Project in West Kalimantan

2004 ~ 2008: Full-Scale Implementation

**Institutions Responsible for Implementation:**

- Provincial Office of Tourism, Provincial Government

**Goals:**

- To conserve and rehabilitate the environment and tourism resources
- To increase regional income by utilization of the natural and cultural tourism resources
- To enhance redistribution of income to the rural area by creation of income opportunities
- To generate employment opportunities in the rural area
- To generate a budget for community development through the introduction of tourism development.

**Rationale:**

The tourism sector in Indonesia has played important roles in terms of employment creation and foreign exchange earnings. More than 5 million foreign arrivals were recorded in 1996. Due to the economic crisis being experienced, the Indonesian government put more effort on promoting in a short and medium term resource-based and labor intensive industries. The tourism sector is expected to contribute to economic recovery and employment generation.

At present, a large part of foreign tourists concentrate on Java and Bali. Tourist arrivals to the whole of Kalimantan is less than two (2) percent at present. It is estimated that half of the foreign visitors are coming in West Kalimantan. East Kalimantan is the next large foreign visitors' destination in Kalimantan.

Tanjung Puting National Park in Central Kalimantan is one of the most famous national parks in Kalimantan attracting foreign tourists, especially nature-oriented tourists from Western countries. Although there exists an attractive tourism resource like Tanjung Puting, the number of foreign tourists visiting Central Kalimantan is still very limited. It is estimated that the number of foreign visitors to Central Kalimantan is not more than 15,000 in a year.

The following development issues are identified:

- Vulnerable tourism resources
- Underdevelopment of tourism industries
- Underdevelopment of tourism infrastructure
- Lack of human resource appropriate for tourism development



In line with above issues, this development program is formulated to implement the following five strategies, which are recommended in the JICA study (SCRDP-Kaltengbar):

- 1) To conserve the natural and social environments in conjunction with tourism development. (resource-oriented tourism),
- 2) To develop and improve tourism attractions especially eco-tourism and village-tourism type products. (alternative tourism),
- 3) To promote small and medium scale tourism industries in rural areas for development of rural communities with community participation,
- 4) To promote international and domestic tourists to Kalimantan by provision of modern communication system (Internet) , targeted to the market segment of Special Interest Group (SIG), and
- 5) To provide training and education opportunities for tourism industry management and operation for the people in the rural communities (human resource development in rural communities).

### **Contents of the Project**

#### **1) Tourism resources conservation and rehabilitation program**

To formulate conservation and rehabilitation programs of natural and cultural tourism resources in cooperation with forest conservation program, agriculture especially swidden agriculture development and conservation program. Location will be the selected potential tourism attractions and its' surrounding areas. Priority should be given to the potential tourism attractions located in the designated priority tourism promotion zones described in the previous section.

#### **2) Market promotion program**

Target market should be SIG in ASEAN and Western Countries. Establishment of Market Promotion Unit in the Provincial and Kabupaten Level to promote SIG both for short and long haul tourists. Up to date required information for target market segment should be provided and upload to the designated home-page of Internet in Market Promotion Unit (MPU). The role and function of each level of MPU and information flow is shown in Figure 8.10.1.

#### **3) Tourism product development cum community development program**

Development of tourism facilities especially for Special Interest Groups (SIG) by community participatory way. The necessary facilities development are:

- access road from river or local road to the destination
- footpath with guide sign and information board at site
- basic accommodations (chalet or hat)
- water supply to tourist facilities
- kiosk with tourist information function

#### **4) Human resource development to meet with tourism in Kalimantan**

Training and education of tour guide for eco-tourism and village tourism by cooperation of the Kalimantan System Research Institute. Attach the function of training and extension service on tour guide in the Kalimantan Research Institute is one possible alternative to establish such organization in the Study Area. Introduction of tourism business to the villages which has potential for tourism development is the most significant element to realize the village tourism in the Study Area. Introduction of tourism business incubation mechanism (objectives, organization, process, procedure, financing and so on) is required.

### **Related Plans, Programs and Projects:**

- Upland Rural Infrastructure Development for Poverty Alleviation in Kalimantan (P3DT)
- Small and Medium Enterprise Promotion in Western Kalimantan

- Development Program of the Kalimantan System Basic and Applied Research Institute, recommended by JICA SCRDP-Kaltengbar

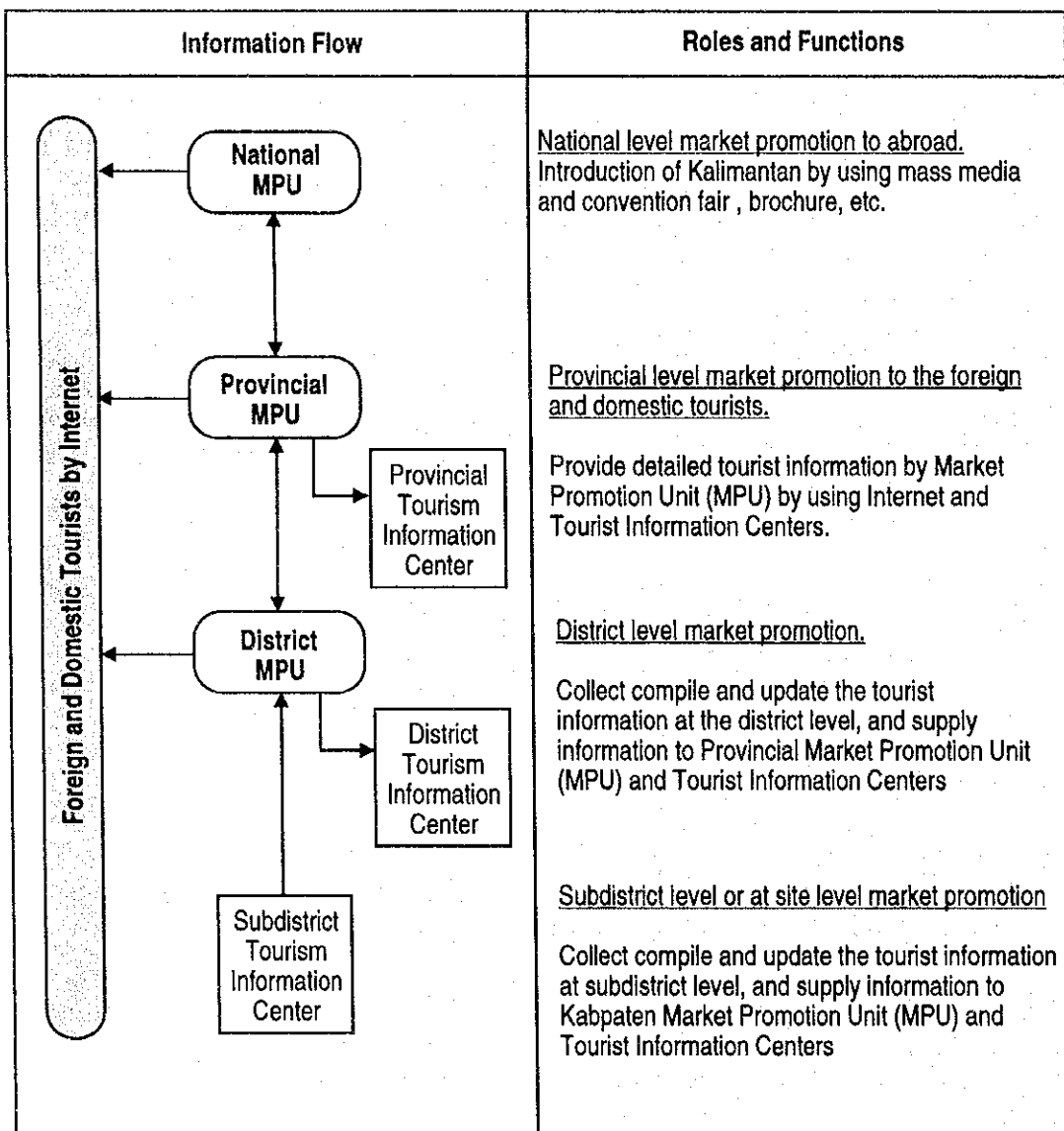
**Important Policy Conditions:**

The government understands the importance of coordination between this tourism development program and other village/rural development programs and projects.

**Contribution to Different Goals:**

The incomes from village tourism development can maintain village infrastructure and sustain the operation of utilities, such as electricity supply and water supply.

**Figure 8.20.1 Roles and Functions of Market Promotion Unit (MPU)**



## 8.21 KALIMANTAN KECAMATAN ROAD DEVELOPMENT PROGRAM

**Title:**

Kalimantan Kecamatan Road Development Program

**Sector:**

Road (Rural Road)

**Location:**

West Kalimantan, Central Kalimantan, East Kalimantan and South Kalimantan

**Time to be Implemented:**

1999 ~ 2003: Pilot Implementation in West Kalimantan

2004 ~ 2018: Implementation in West Kalimantan, Central Kalimantan, East Kalimantan and South Kalimantan

**Institutions Responsible for Implementation:**

- Provincial Government and District Governments

**Goals:**

- To increase the integration of remote areas in inland Kalimantan
- To expand the opportunities of development in inland Kalimantan
- To increase the accessibility of local people to social and economic facilities and services

**Rationale:**

Kalimantan provinces have different conditions for road development, especially for district roads or kabupaten roads. In some districts, such as in the Kapuas river basin of West Kalimantan have a relatively good road network from the downstream area to the middle stream area, stretching to the upper stream area. The District Roads (Kabupaten Roads) from the district capitals to the subdistrict centers have been constructed gradually. Most subdistrict centers have been connected by earth roads at least in the Kapuas river basin.

One of the key issues after the preparation of District Roads is how to expand the road networks reaching villages from subdistrict towns. These roads are called as Subdistrict Roads (Kecamatan Roads). With some government grant funds (Inpress Desa), community members can work together to improve road sections within each sub-village (dusun) territory up to the level at which the sections are passable by motorcycle. However, such community's collective works are not practical at subdistrict towns, where residents do not have a sense of community so that they cannot work together to improve the roads to villages. Moreover, in many cases, the roads exiting from subdistrict centers to villages are not for the town residents' interests, but for the village dwellers' interests. These road sections tend to be damaged due to the relatively large amount of traffic. These road sections should be improved by the local government. If this takes place, each sub-village dwellers will feel it more feasible to work together for improving their sub-village roads to connect to the next sub-villages or to the subdistrict town.

In this sense, it is strategically important to improve the road sections exiting from subdistrict towns toward villages or sub-villages. These special road sections are called as "Kecamatan Exit Roads".

## Contents of the Project

- To identify Kecamatan Exit Roads from subdistrict towns which have been already connected by District Roads
- To make an implementation plan of improving Kecamatan Exit Roads
- To implement the betterment of Kecamatan Exit Roads in West Kalimantan
- To implement the betterment of Kecamatan Exit Roads in West Kalimantan, Central Kalimantan, South Kalimantan and East Kalimantan

## Related Plans, Programs and Projects:

- Infrastructure Development Program of Backward Villages (Pembangunan Prasarana Pendukung Desa Tertinggal, or P3DT)
- Kecamatan Development Fund

## Important Policy Conditions:

- The policy emphasis on poverty alleviation is still maintained as one of the important development goals by the government.
- The foreign economic assistance to P3DT, such as OECF, will be continued.
- Presidential village assistance funds (Inpress Desa) are continued to provide to villages.

## Contribution to Different Goals:

- The improvement of Kecamatan Exit Road serves community development and brings substantial economic benefits to the communities, including the price decrease of goods which the local people need to purchase and price increase of agricultural commodities which the local people produce.

Figure 8.21.1 Rural Road Patterns and Kecamatan Road Sections in West and Central Kalimantan

