

Economic Cooperation in SIJORI Growth Triangle: An Indonesian Perspective

Mubariq Ahmad

ABSTRAK

Sejak dicanangkannya konsep pertumbuhan segitiga Singapura-Johor-Riau oleh Menteri Goh Chok Tong pada 1989, serta diresmikan dalam bentuk persetujuan antara Indonesia dengan Malaysia pada Juni 1990 dan Indonesia dan Singapura pada Agustus 1990, pelbagai perkembangan telah terjadi dengan cepat di wilayah tersebut.

Artikel ini merupakan laporan dan analisis atas perkembangan dan perubahan yang berjalan dengan cepat di wilayah segitiga SIJORI (Singapura-Johor-Riau), faktor-faktor yang merangsang pertumbuhan di segitiga tersebut, serta masalah-masalah yang menjadi kendala. Karena merupakan sisi pandang Indonesia, fokus perhatian diarahkan kepada perkembangan yang terjadi di Propinsi Riau, terutama di pulau-pulau Batam, Karimun, Bintan dan Singkep, yang secara resmi menjadi bagian dari segitiga SIJORI.

I. INTRODUCTION

In June 1991, a forum of ASEAN economists and social scientists reviewed the development of SIJORI (Singapore-Johor-Riau) growth triangle. Changes and progresses continue to occur very rapidly in the region. The three governments involved are getting more and more enthusiastic as the private sector is. Official cooperations have been set up, private investments and labour are flowing in, physical and social infrastructures are being up-graded. It looks like the SIJORI area is moving toward where we expect it to go. For these reasons may be this is a good time to look back to inventorize progresses, and evaluate issues and problems left untouched or created by the recent developments.

This paper is written from an Indonesian perspective. As such the focus will be on the Riau province; its islands and mainland. The discussion begins with a review of the expansion and development of SIJORI as an area. Then, while trying to provide recent information on the development of Batam which has been developed since 1970¹, focus will be given to the state of development in the islands of Bintan, Karimun, and Singkep which have officially become part of the SIJORI growth triangle. An overview of the Riau mainland's response in anticipation to the changes in SIJORI will also illustrate the paper. Analysis of the factors inducing growth in the SIJORI triangle will be undertaken. After discussing existing development problems and issues we will try to identify some prospects and policy implications of the current SIJORI situations.

II. REVIEW OF EXPANSION AND DEVELOPMENT OF SIJORI AREA

On Indonesia side, development of Riau archipelago can be traced back as far as 1964. Soon after the Indonesia-Malaysia confrontation there had been need to develop this 'frontier' area, possibly for security reason. However, the idea was not structurally articulated until 1968 which is the starting year of Indonesia's off-shore petroleum exploration. In 1970 Batam was designated as a logistic base for oil industries by a presidential decree. Then, development of Batam as an industrial area started in 1973 with emphasis on the entre port role. In 1978 the whole Batam area became a duty free zone. Until 1989 Batam seemed to be the only focus of industrial activity development in the area of Riau archipelago.

A notable increase in investment in Batam can be seen since

1 A more detailed explanation on the historical and conceptual background of the SIJORI growth triangle can be found in Pangestu (1991)

1984. Dominated by investment in oil mining equipment industry until 1988, foreign as well as domestic investments started to flow into various other sectors after some changes in Indonesia's investment policy in 1989². The need for some extra space to accommodate Singapore's growth, and the need to develop this frontier area on Indonesia side, have resulted in business pressures which made the policy change possible. President Soeharto and Prime Minister Lee Kuan Yew met in October 1989 to discuss the development of Batam. Since then, the economic relationship between Batam and Singapore grows stronger.

The first official statement on the term and concept of the growth triangle which consist of Singapore, Johor and Batam came from the now Singapore's Prime Minister Goh Chok Tong in December 1989. Official endorsement of President Soeharto and Prime Minister Dr. Mahathir Mohammad in June 1990 strengthened the concept of growth triangle area. Several concerted efforts to develop effective economic cooperation among the three sides of the triangle have been occurring after the endorsement.

In August 1990, Indonesia and Singapore signed an agreement to jointly develop the Riau archipelago. A joint committee has been set up at ministerial level to coordinate the development efforts from each side. Prior to the signing of the agreement, Indonesian government formed The Coordinating Team of Riau Province Development (Tim Koordinasi Pembangunan Propinsi Riau/ KPPR Team) with a presidential decree in July 1990. The team is responsible for coordinating the development of Riau islands outside the BIDA (Batam Industrial Development Authority)'s area. With the announcement of the presidential decree the whole Riau archipelago officially became part of the growth triangle region. As far as public discussions go, current plans and ideas for the region concern only with development in Bintan, Karimun and Singkep³. In addition to these islands, there is also tendency to attract agribusiness investors to Natuna. As discussed later, the efforts to develop a broader triangle on Indonesian side has resulted, at this point, in some investment and many commitments to flow a massive amount of capital to the islands of Bintan and Karimun.

While the KPPR Team actively develops the islands of Bintan and Karimun, BIDA is contemplating an expansion of its working area to include Rempang and Galang, two islands located southeast of

2 Starting 1989 Indonesia is allowing 100 % foreign ownership in Batam with requirement to 5 % divestment after five years of operation. This is different from investment provision in other area where domestic ownership is required to be 51 % in 15 years.

3 Most Island in Riau province historically and practically belong to the Ministry of Mining due to substantial deposit of tin and bauxite found in area. While tin mines in Singkep and Lingga have been closed, tin mine in Karimun and bauxite in Bintan are still operating.

Table 1
Relative Unit Cost Comparison of Land and Labor in SIJORI

	Johor	Singapore	Batam
Land price (US\$/m ²)	4.08	4.25	2.3
Labourcost (US\$/month)			
unskilled	150	350	90
semi-skilled	220	420	140
skilled	400	600	200

Source: Business Times, February 1991

Batam. BIDA is in the process of negotiations with the provincial government and ministries in charge of each island⁴. The general idea at this point is to develop an interconnected BARELANG (Batam-Rempang-Galang) industrial area.

The official and private sector participations from Indonesia and Singapore sides have strengthened the economic relationship between Riau and Singapore. However, while link on the Riau-Singapore side is getting stronger, and the Johor-Singapore tie has long been established, efforts in developing the third side of the triangle are not progressing very much. Despite the strong political intention announced from the Malaysian part to renew the historical socio-economic link between Riau and Johor, economic resources in the two ends tend to be in competitive rather than complementary situation relative to each country's position vis a vis Singapore. The seemingly significant differences in estimated land and labour costs between Johor and Batam/Riau (see table 1) proven to be insufficient to induce investment flow across the Johor-Riau border. Availability of the factors, market orientation, and socio-political considerations may not be well represented in the estimated costs⁵.

There have been complaints in the press from the state of Johor and Malaysian ambassador in Jakarta about Johor/Malaysia being left behind in the triangle cooperation. In the middle of this situation a joint venture between a Johor-based company and Turi Beach Resort of Batam has been formed to develop a mountain eco-tourism resort in Gunung Ledang, Johor. A Singapore based company is expected to participate in the joint venture.

Recent development indicates that the triangle seems to be

4 Rempang is under Ministry of Forestry administration. Galang - the Vietnamese refugee camp which still house about 20,000 people - is under the administration of Ministry Defence and Security.

5 It is also interesting to note that instead of Batam, Malaysian investors seem to prefer West Java province as the location for some electronic industries.

expanding its Riau leg in the northwest direction rather than strengthening the third leg. There is a tremendous increase in economic activities along the Pekan Baru-Dumai-Medan highway link during the last ten years. This trend is expected to intensify as the ocean-class port of Dumai is being expanded. Dumai is expected to become the north gate of Sumatra into the inner circle of SIJORI region.

With regard to the formation of the ASEAN northern growth triangle (Northern Sumatera - Penang - Southern Thailand), one visible indicator so far (despite the lack of statistical support) is that Medan-Penang and Medan-Kuala Lumpur links are experiencing increased economic relation. With this two trends - northward expansion of SIJORI on its Riau leg and the increased economic link between Medan and the northern part of Malaysia - one possible outcomes would be the formation of the triangle' third leg on a distance far north of the *dreamt* Riau-Johor link which we are so eager to see at this point in time. In the mean time, the idea of Northern Growth Triangle may dissolve amidst the insufficient complementarity found among the three sides.

With such expansion of the growth area, the currently SIJORI growth triangle would then become Singapore-Malaysia-Sumatra (SMS) growth area (which is not necessarily in the form of triangle or any regular shapes). Penang has great potential to play as a prime mover on the northern part this growth area. As the growth area finds its form there would be a meaningful need to have an official bilateral economic cooperation agreement between Indonesia and Malaysia. However, at this moment there is no sufficient proof to claim that SIJORI is changing its form toward SMS.

III. DEVELOPMENT PROGRESS IN RIAU ISLANDS AND MAINLAND

A. *Batam, Rempang and Galang*

1. *Economic and Growth Indicators*

As has been mentioned in many places, the Batam 'boom' had just started in 1988. The 1988-90 period appears to be the fastest growing era for Batam economy. Foreign investment and tourist visits increased by almost 60% per annum. Employment of local workers went up by 30% and port calls increased by 50% (air) and 104% (sea) per year (see table 2). While population grew at 16%, GRDP of Batam increased by 14% annually during this period.

In 1991, Batam experienced a slower expansion in its economy.

Table 2
Batam: Main Economic and Growth Indicators

Year	Population	Local	Foreign	Frequency	Ship Ports	Number of	For.invest.
1973	6,000						
1983	43,000			481	5,029		
1985	58,000	6,159	230	1,545	5,592	60,161	222.4
1988	79,400	9,478	153	2,887	9,066	227,981	288.8
1989	90,500	11,041	140	3,511	10,258	359,497	428.1
1990	106,800	16,085	251	6,487	37,802	579,305	723.7
1991	107,600	22,942	295	8,003	54,341	606,251	865.7
<u>Growth Per Annum (%)</u>							
1973-83	21.8						
1983-88	13.0			43.1	12.5		
1985-88	11.0	15.5	-12.7	23.2	17.5	55.9	9.1
1988-90	16.0	30.3	28.1	49.9	104.2	59.4	58.3
1988-91	10.7	34.3	24.5	40.5	81.7	38.5	44.2
1990-91	0.7	42.6	17.5	23.4	43.8	4.7	19.6

Source: BIDA

Population, investment and tourism show lower growth rates. In contrast, employment increase is faster than that of the 1988-90 period. The employment boom in 1991 is the result of 1988-90 investment boom and the increased intensity in construction activities. Employment is expected to increase by 6,000-8,000 new jobs in 1992 due to the incoming operation of many new factories, forty of which are in Batamindo Industrial Park. Regional office of the Ministry of Man Power has opened a network for sourcing workers from other provinces in Jawa, Sumatera and Nusa Tenggara.

In term of Gross Regional Domestic Product (GRDP) Batam only accounts for 3.5% of Riau economy. Batam's industrial products contribute 16% of Riau manufacturing sector (table 3). One-third of Batam economy depends on manufacturing sector. In Riau a comparable dependency is experienced on agriculture.

GRDP growth in Batam as well as in Riau is led by the manufacturing and agriculture sectors. Despite its low base, the commercial development of fishery and agribusiness activities in Batam had made agriculture sector grew at the rate of 13.2% per year during the 1983-88 period. Manufacturing sector in Batam grew only slightly higher than that in Riau province. Overall annual GRDP growth rate shows that Batam economy grew by one percentage point faster than Riau economy.

Exports from Batam increased by 85% annually during the

Table 3
Batam and Riau: Non-Oil Gross Regional Domestic Product (Rp.
Million, at constant 1983 Prices)

Sektor	1983		1988*			1963-88 Annual Report		
	Batam	Riau	% Batam in Riau	Batam	Riau	% Batam in Riau	Batam	Riau
Agriculture	209.6 0.6	278,043 28.7	0.1	390.1 0.8	378,500 28.7	0.1	13.2	6.4
Mining	2,724.8 8.1	72,461.4 7.5	3.8	4,346.5 9.0	87,200.0 6.6	5.0	9.8	3.8
Manufacturing	10,955.7 32.5	72,190.8 7.4	5.2	16,120.2 33.4	103,200 7.8	15.6	8.0	7.4
El.,gas,water	162.3 0.5	5,841.8 0.6	2.8	364.3 0.8	15,900 1.2	2.3	17.6	22.2
Construction	681.2 2.0	20,570.6 2.1	3.3	931.6 1.9	24,200.0 1.8	3.8	6.5	3.3
Services	18,695.9 55.4	520,109 53.7	3.6	26,140.7 54.1	710,600 53.8	3.7	6.9	6.4
GRDP	33,741 100.0	969,262 100.0	3.5	48,293 100.0	1,319,600 100.0	3.7	7.4	6.4

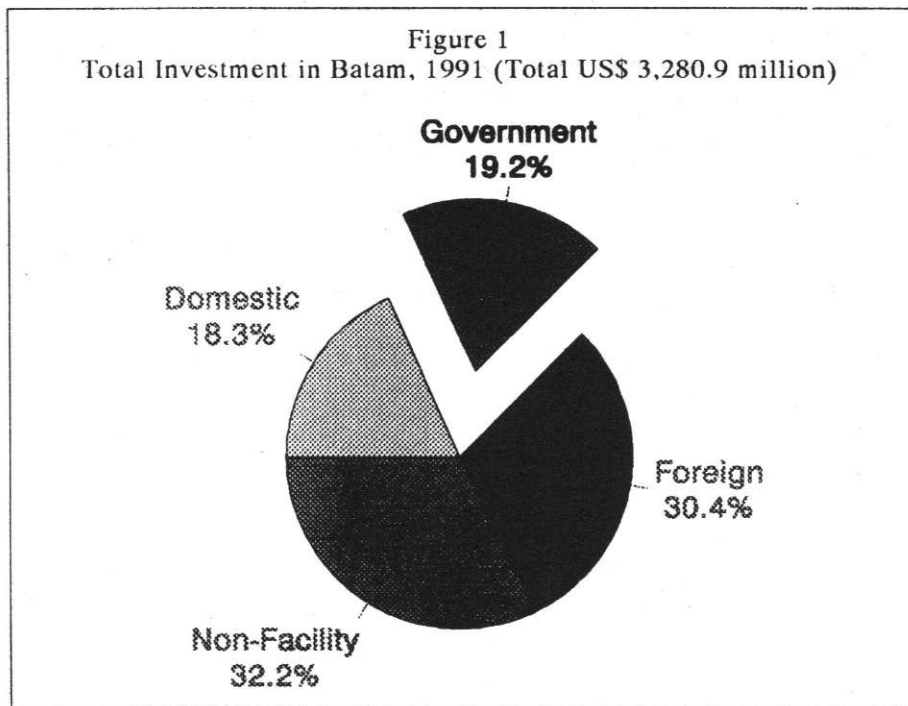
*Preliminary Figures

Source: Central Bureau of Statistics

1988-90 period and declined to about 40% in 1991. The high growth rate is due to the low base and the operation of newly built factories. Electronics components is the largest export product from Batam in 1991. It accounts for more than 37% of the total exports. Cordless phones and petroleum equipment-related products (pipes and other mining equipments) each account for 30% of the total export. Electronics, oil mining equipment and pipes seem to lead the Batam export growth in 1992 as the producers win several international marketing contracts. Appendix 1 illustrates development of major export items from Batam since 1986.

3. Investment Growth and Trends

By the end of 1991, total cumulative investments in Batam amounted to US\$ 3.3 billion. Almost one-fifth of this is government investment in developing basic infrastructure. The rest is made of private investment which consists of foreign investment 30.4%, domestic investment 18.3%, and non-facility investment 32.2% (see figure 1). Non-facility investment is investment made without prior application

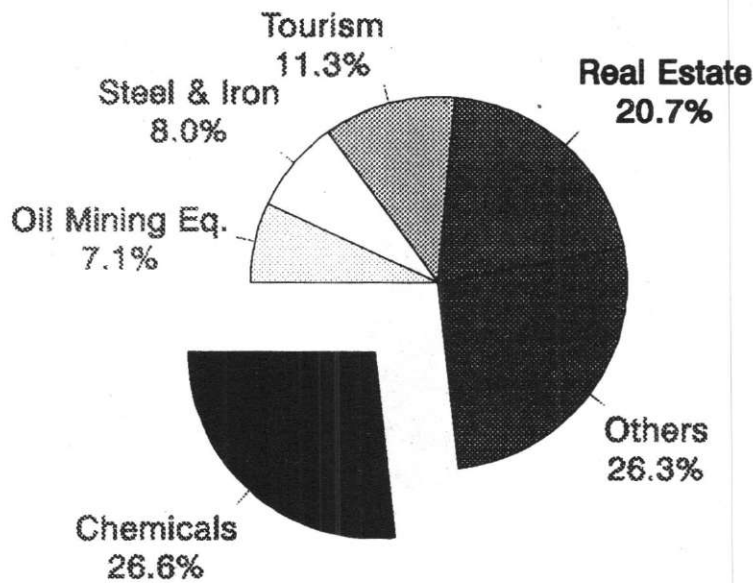


to the Investment Coordinating Board. Companies belong to this group do not received special treatment such as exemption of import duty and accelerated depreciation. The large share of non-facility investment shows that there is a lot of small scale or agriculture investment in Batam which do not need such facilities. Of 692 company establishments at the end of 1991, about 75% is non facility investment. Foreign companies share about 15% of the total number of companies in Batam.

Domestic investment increased by 14% in 1991, much lower than the previous years growth of 90%. Very likely the decline was caused by the tight money policy adopted by the Indonesian monetary authority since early 1991. About sixty percent of the total cumulative investment (Rp. 849.5 billion) is in chemical industry, real estates and tourism (figure 2 and appendix 2).

Foreign private investment in Batam seem to be less effected by the changes in domestic credit policy in 1991. Cumulative approved foreign investment grew by 20%, and is consistently concentrated in real estate and tourism development. Both these sectors absorb more than half of the total planned foreign investment in Batam. Electronic industry was the fastest growing sector as the total amount invested tripled in 1991 (appendix 3 and figure 3). Oil mining equipment and steel industries -- the earliest developed sectors in Batam -- both still

Figure 2
Approved Domestic Investment, 1991 (Total Rp. 849,5 billion)



have a significant contribution in absorption of foreign investment. At the end of 1991 these industries jointly accounted for 28% of the total foreign investment.

Singapore appears to be the largest investor in Batam with 44% share of the total US\$ 867 million foreign investment, followed by The United States (19%), and Japan (7%) (figure 4). It is interesting to note that more than 92% of the total Singapore's investment was made during 1989-91 period. Sixty percent of the US\$ 410 million total investment received approvals in 1990. This shows that the 1989 change in Indonesia's investment policy for Batam has increased Batam attractiveness significantly, at least for Singaporean investors. The change in investment policy is also viewed as a proof of Indonesia's political commitment to accept Singapore involvement in Batam development. Batam accounts for 33% of total Singapore investment in Indonesia (appendix 4).

Sectoral distribution of each country's investment in Batam suggests that tourism and real estate are the most popular sector among the investing countries except the United States (see table 4). While many countries are jumping into these two sectors (especially after 1988), US investors just about to start diversifying their investment while keeping their dominations in oil mining equipment and steel industries.

Figure 3
Batam: Approved Foreign Investment, 1991 (Total US\$ 867 million)

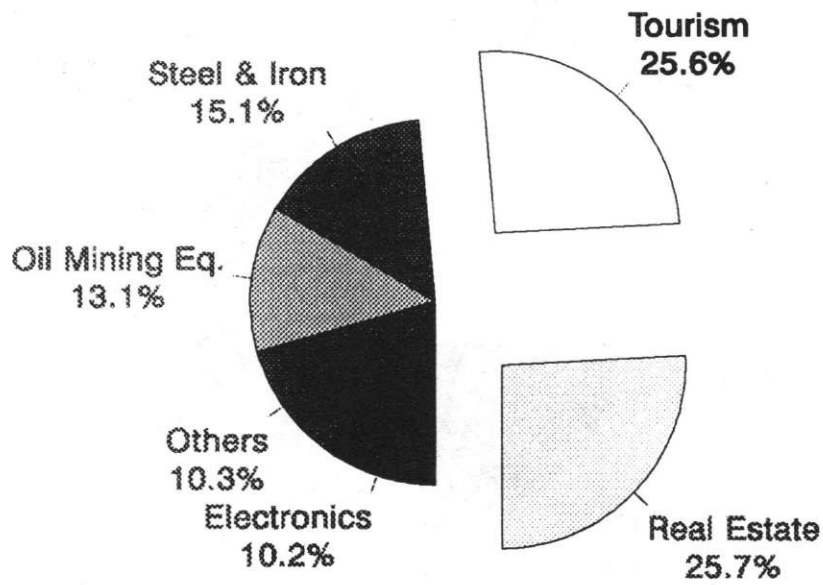
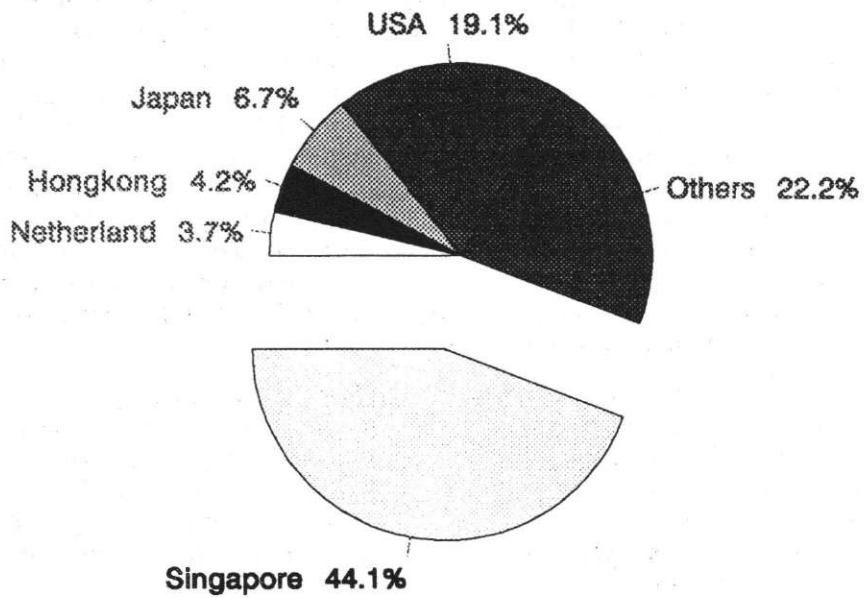


Figure 4
Approved Foreign Investment, 1991 (Total US\$ 867 million)



Most of the approved foreign investment in real estate sector was planned to develop eight industrial estates in Batam. However, the realization of the planned investment in this sector is not very progressive. Only two (Batamindo Industrial Park and Kabil Indonusa Industrial Estate) out of the eight locations which are being developed. One investment approval for real estate has been canceled by BIDA due to fashionably long delay while some others have received official warning. Recently, there is a new commitment from Taiwan Land Development company to develop its Kuang Hwa industrial estate location in Kabil. The Monetary Authority of Singapore has also approved a loan amounting to S\$ 125 million from a Singapore-based consortium to finance further development of Batamindo Industrial Park⁶.

During 1992, investment flow to Batam is expected to continue at the same momentum. Up to the middle of February, there have been 24 new approvals for foreign investment. One notable domestic investment approval in Batam is the construction of a US\$ 6.0 million poured cement terminal by PT Semen Padang. The company, which produces cement in West Sumatera, expects to cater a growing market in the SIJORI growth triangle.

3. *Infrastructure and General Business Facilities*

BIDA is still in the process of developing basic infrastructures and supporting business facilities in Batam. BIDA's plan is to develop every facility to a certain stage and transfer it to the regular government ministry or unit in charge of each facility for maintenance and future development. This is the strategy of BIDA in reducing its role and withdrawing from Batam.

Almost virtually all infrastructures and facilities in Batam are being expanded. After completing arterial roads of 70 kilometres, BIDA is now finishing the 264 kilometres collector roads from 41% to 100%. BIDA have just finished the construction of one new berth in Batu Ampar seaport and the first stage of Asia seaport in Kabil. Kabil is planned to be the main seaport with 5.5 kilometres of berth and capacity to accommodate 150,000 ton vessel. Along with Batu Ampar, Kabil is expected to handle cargo thru-put which grows by 40-50% annually since 1989. Hang Nadim airport is also in the process of expansion to facilitate the Boeing-747 service. In 1991, passenger and cargo flows at Hang Nadim airport grew by 37 and 50 percent respectively.

Water supply provision in Batam is in a critical situation at the

⁶ Batamindo Industrial Park is owned by Indonesia's Salim Group, Singapore Technologies Industrial Corporation (SITC) and Jurong Environmental Engineering (JEE)

Table 4
 Cumulative Approved Investments of Selected Countries in Batam
 1980 - 1991(US\$ '000)

COUNTRY	1980 A	1988	1990	1991	
				Value	Share
<u>JAPAN</u>					
Steel & Iron	4,000	4,000	4,000	4,000	6.5
Tourism	0	20,000	50,000	50,000	80.9
Electronics/watch	0	0	0	6,350	10.3
Plastic packaging	0	0	0	1,430	2.3
Total	4,000	24,000	54,000	61,780	100.0
<u>SINGAPORE</u>					
Steel & Iron	0	0	49,200	49,200	12.0
Tourism	31,564	31,564	115,064	125,264	30.6
Electronics	0	500	6,500	34,800	8.5
Food & Agri.	0	1,000	27,300	27,300	6.7
Real Estate	0	1,500	141,500	155,500	37.9
Equip.Service	0	0	2,600	3,600	0.9
Toys	0	0	5,000	5,000	1.2
Plastic & paper	0	0	0	4,505	1.1
Rubber processing	0	0	0	4,660	1.1
Total	31,564	34,564	347,164	409,830	100.0
<u>USA</u>					
Steel & Iron	0	63,015	63,015	63,015	35.5
Oil Mining Eq.	0	99,482	99,482	99,482	56.0
Equip.Service	0	2,000	2,000	2,000	1.1
Chemicals	0	3,495	3,495	3,495	2.0
Toys	0	0	1,000	1,000	0.6
Plastic&Paper	0	0	3,600	3,600	2.0
Electronics	0	0	0	5,004	2.8
Total	0	167,991	172,591	177,596	100.0
<u>HONGKONG</u>					
Electronics	0	0	12,500	12,500	32.5
Plastic&Paper	0	0	2,000	2,000	5.2
Tourism	0	0	0	24,000	62.3
Total	0	0	14,500	38,500	100.0
<u>NETHERLAND</u>					
Steel & Iron	0	1,000	1,000	1,000	4.0
Oil Mining Eq	0	0	4,500	4,500	17.9
Equip.Service	0	0	4,000	4,000	15.9
Real estate	0	0	0	15,624	62.2
Total	0	1,000	9,500	25,124	100.0

A/ all Investment up to December 31, 1980

Source: Badan Otorita Batam

moment. Five dams with total capacity of 850 litres clean water per second are already fully utilized. Duriangkang dam which will provide 3,000 litres of clean water per second is still under construction and is expected to commence production in 1996. From the total 3,850 litres per second clean water to be produced in Batam 16% will be allocated for industry, 5% for tourism, and 79% for households and other uses.

Telecommunication facilities in Batam are now handled by the state-owned telecommunication company and also in a way approaching their bottlenecks. The current utilization rate is 75%. Batamindo Industrial Park is now using Singapore's telephone system and facilities which is not compatible with the Indonesia's telephone system. Negotiation between BIDA and Singapore to develop a compatible telephone system is still in progress. In addition to this, BIDA is developing Batam's telephone central to be a gate for international call. The completion of the project will ease up the Batam-Singapore connection and loosen the burden of Jakarta and Medan international telephone gates.

Electricity will soon become an urgent problem in Batam as the housing sector and industrial estates develop. At the moment, with 25 megawatts generating capacity, BIDA only supplies parts of the electric power needed by the industry in Batam. BIDA has just received a commitment to finance the construction of three new power plants to reach 100 MW generating capacity within the next four years. For a long-term power need, BIDA is contemplating the construction of a gas-fired power plant and share the output with Singapore. A negotiation for the deal is also in progress. Beside this output sharing negotiations, there is also negotiation on the feasibility of Indonesia supplying gas to Singapore from a CONOCO's off-shore station in Little Natuna. The need for energy on both Indonesia and Singapore sides, and the availability of its sources in the region will become an important factor inducing closer cooperation between Riau and Singapore.

To support the development of business activities in this frontier region, Batam is served by 27 hotels (11 of which are star hotel), 19 banks, 7 insurance companies, 16 air and sea freight forwarders, 700 taxis, and social as well as entertainment facilities.

4. *Plans for Rempang and Galang*

BIDA has released its plan to expand the area to include the islands of Rempang and Galang. The three islands: Batam, Rempang and Galang -- termed as BARELANG -- will be connected by bridges. As such, the whole bonded zone will cover an area of 661 square kilometres, a little larger than that of Singapore. Both Rempang (166 square kilometres) and Galang (80 square kilometres) will be developed for

electronics and raw material processing industries. About sixty percent of the whole area will be maintained as forest to support the water catchment in the islands. Water supply would one of the first infrastructures to be developed in Rempang and Galang.

B. B i n t a n

Bintan is an island located 10 km east of Batam and has an area of about 1,100 square kilometres or 110,000 hectares (260% of Batam). Population in Bintan is estimated around 130,000. Tanjung Pinang, the main city in Bintan which is located in the southern part of the island, is 45 minutes away from Kabil port in Batam. However, the new development centre in Bintan is Tanjung Uban, currently a small port in the northern part of the island and can be reached in 10 minutes by speed boat from Kabil. Distance between Tanjung Uban and Singapore is about 42 kilometres or less than one hour ferry ride.

Development of Bintan island as part of the growth triangle area started with the issuance of Presidential decree no.31/1990 dated July 25, 1990. Based on the decree, the Coordinating Team for Riau Province Development (KPPR Team) was formed. The KPPR Team is responsible for the preparation and implementation of development policies within Indonesia-Singapore economic cooperation framework. Coordinating Minister of Economic, Finance and Industry, Junior Minister of Industry, Chairman of The Investment Coordinating Board, and The Riau Governor comprise the team. Aim for greater participation of Riau provincial government in the development of SIJORI seems to be the background of the formation of the KPPR Team.

In August 28, 1990, the team signed an agreement with the government of Singapore in Batam to jointly develop the Riau archipelago. A Joint Ministerial Committee was then set up to prepare plans and policies. Singapore's intention to buy water from Indonesia which was announced a few months earlier is one factor that speeds up the process. So far, Indonesia's Coordinating Minister for Economic and Industry and Singapore's Minister of Trade and Industry have met twice discussing the development of Riau islands. Bintan Development Coordinating Board has also been set up and made up of officials from Riau Regional Development Planning Agency (BAPPEDA), Riau Investment Coordinating Board (BKPM) and Singapore's Economic Development Board. Its offices have been opened in Bintan and Singapore to assist companies planning to invest in Bintan and other islands. A joint Indonesia-Singapore investment promotion missions at ministerial level to promote Bintan and Batam have also been undertaken to Tokyo and Osaka in December 1990, and to Hongkong, Taiwan and South Korea in September 1991.

Based on its potentials Bintan will be developed for industrial zones, tourism and a water supply project to cater Singapore and Bintan's industrial and tourism facilities. Private sector is expected to carry out investment in basic infrastructures needed to support the projects. Bintan land use plan has been finished in 1991. About 65% or 72,000 hectares of Bintan area will be used for this 'new' development project. An estimated total amount of US\$ 7 billion will be needed to develop Bintan. About 120,000 workers are expected to take part during the development of the main basic infrastructures and facilities. After the development stage, Bintan will provide 60,000 permanent employments.

Since the infrastructure inside the industrial, tourism and water supply projects will be developed by the private investors, government is currently developing the infrastructure outside the projects area. Tanjung Pinang - Tanjung Uban arterial road has been up-graded in 1991, a new berth for ferry has been finished in Tanjung Uban also in 1991. Kijang airport is now being expanded to accomodate bigger aircraft service to Bintan. Government is in the process of relocating 5,500 households from the three project areas.

1. Water Supply Project

Indonesia and Singapore signed a water purchase agreement in June 1991. The contract for the construction of the project has just been signed in March 1992 by Indonesia's Salim Group and The Public Utility Board of Singapore. The project to produce 121 million gallon of water per day absorbs about S\$ 1 billion which will be split by the parties involved. This foreign investment plan was approved to construct 5 dams, water treatment plant, and to operate for 50 years. Government allocates 40,000 hectares land as water catchment area to support the water supply project. The cost of reforestation of this area -- about US\$ 30 million -- will be borne by Indonesian government. More than half of the water produced in Bintan will be sold to Singapore at the price of Rp.10/cubic metre or S\$ 0.008/1000 litres⁷. The project plans to commence water production in five to seven years time with 4.45 million cubic meter per day capacity. The whole project will finish in 15 years.

2. Tourism Development

Tourism resort will cover an area of 20,000 hectares in the north-eastern part of Bintan including the famous Pasir Panjang beach. Another 7,000 hectares is also allocated as supporting agro-tourism

⁷ Average Production cost of per meter cubic clean water is Rp. 350 in yogya - a medium size city in Central Java (HDK. 1990)

area. Development of basic infrastructures and facilities in the area will take an amount of S\$ 3 billion. Development of the 20,000 ha tourism resort is conducted by Bintan Resort Corporation (BRC), a consortium made up of three Indonesian conglomerates (60%) and four Singaporean companies (40%). A second consortium in which Indonesian parties will share 40% of the capital, Bintan Resort Management (BRM), will manage the Bintan Beach International Resort developed by BRC. There is a third company, Bintan Resort Servicetama (BRS) which will supply the need of the resort.

In Bintan Beach International Resort, BRC will prepare the infrastructure for 21 hotels, 9 condominiums, 27 villas, 13 golf courses, equestrian facilities, marina and a small airport. In November 1991, BRC has started the construction of a S\$ 150 million temporary seaport to facilitate the transportation of heavy equipments needed to develop the area. First stage development of the resort which cover an area of 600 hectares has started in March 1991. BRC plans the infrastructure to be ready by 1994. A few companies have signed agreements to invest US\$ 300 million in building two star hotels and three golf courses starting 1992.

3. *Industrial Estates*

Another Indonesia-Singapore joint venture is ready to develop the 4,000 hectares industrial estate in Tanjung Uban. Indonesian parties which contribute 60% of the capital consist of Citra, Bimantara and Salim groups. Singapore is represented by Jurong Town Corporation. The estimated cost to develop the industrial estate is US\$ 800 million. The consortium plans to start the construction of 225 factories building in 1992 to be finished by 1995. Tanjung Uban industrial estate is expected to become a bonded zone when it is start operating.

Industries planned for Bintan based on Riau resources are aluminium processing, oil refinery, downstream petroleum based products, textile, garment, electronics, wood based products, metal components, as well as agro-based industry. An AIJV (ASEAN Industrial Joint Venture) project on Aluminium Hydroxide and an EXXOR oil refinery will soon be built in Bintan.

C. *Karimun*

Karimun is another small island in Riau with area of 275 square kilometres and located 48 kilometres southwest of Singapore. The current population in Karimun is estimated around 54,000. Tanjung Balai Karimun (which is different from Tanjung Balai Asahan in North Sumatera province), the main city in the island, is a base of Indonesian custom patrol fleet which controls the southern part of the

Malaka Strait. It is also the logistic base of the off-shore tin mining and explorations.

Another main product from Karimun is granite and Singapore is the main market for it. Until now, there are 13 concession for granite quarrying in Karimun. Some of them are Indonesia-Singapore joint ventures.

In August 1991, a Memorandum Of Understanding between Bangun Cipta Indo Karimun (an Indonesian consortium) and Sembawang Group of Singapore was signed in a plan to jointly develop a petroleum processing centre and a shipyard in Karimun. The integrated petroleum based business centre is aiming to be a centre for petroleum bunkering, processing and distribution services. A 4,000 hectares land has been allocated for this joint venture to develop the infrastructure for a petroleum related industrial estate.

According to the company in charge, Karimun is chosen as the location of petroleum processing centre (PPC) for several comparative advantages. Land and labor are cheap and the island is located on the international shipping line for both cargo ships and oil tankers, especially those coming from the middle east and heading for eastern Asia. As such, Karimun has potentials to replace Singapore's function for bunkering service to the cargo ships. Relocation of Singapore oil refineries is also expected to happen in the coming years. In addition, Karimun is planned to be a processing or blending centre for petroleum products entering eastern Asia market such as Japan, Korea and Taiwan. The company also expects Karimun can be an important transshipment point for oil coming in and out of Indonesia. Karimun is also chosen because its beach has sufficient depth (draft) for supertankers. This is also the motivation to develop a shipyard in Karimun to provide support for the tankers and cargo ships repair need. Activities in the PPC and the shipyard are expected to spur up associated service industry and Karimun economy.

However, looking at the current map and policy in Singapore's petroleum industry, it is rather difficult to imagine - even on the basis of long term cost and benefit perspective - that Singaporean GLC (government linked company) are developing its competitors in Karimun while Singapore's oil industry is still growing and being developed. As such, while PPC may become a buzzword in developing Karimun, it is not unlikely that the main target of Singaporean investors is the shipyard business rather than an integrated petroleum-based industrial complex. The reclamation and allocation of land for petroleum industry in the western part of Singapore Republic - where the oil companies are still expanding their capacities - stands as a proof that Singaporean government is not relocating this lucrative business to its neighbor. Under the circumstance, it makes little sense

for Indonesia to develop Karimun for a petroleum processing centre unless there is a desparate need for additional oil transshipment facilities. On the shipyard basis, developing this business in Karimun could be regarded as creating a competitor of the existing shipyard industry in Indonesia. In addition, since shipyard is classified as a strategic industry in Indonesia - meaning it has security and defence considerations - it would not be easy for the government to let private sector develop this business within Indonesia's territory. Probably these are the background of the inclusion of shipyard industry into the negatif list of investment in SIJORI early April 1992.

D. Singkep

Singkep, an island twice as big as Batam and located roughly 100 km south of Batam, will soon be abandoned by its exploiter: PT Timah. There have been ideas and discussions to develop Singkep as a bonded industrial zone for heavy industry and oil refineries, and to use it as Batam's bonded warehouse. However, due to shift in priorities, actual development plan for Singkep does not seem to come out in a near future. About thirty thousand population, some of it are semi-skilled workers from the tin mines, are expected to make their own way to solve the potential problems of living left by the tin company.

E. Mainland Riau

People in mainland Riau, especially officials at the provincial level, have great enthusiasm about development in the archipelago. The whole province is getting ready to take as much advantage as possible from the progress in Batam and Bintan. Software and hardware are being prepared.

Provincial government allocates its annual budget for the training of workers in Riau in anticipation of increasing demand from Batam and Bintan. Training is directed to create medium level professionals in manufacturing and tourism service industries.

Two ocean ports are being prepared to be the gates to the centre of SIJORI area. Dumai port is being expanded in the northern part of Riau to facilitate goods and people transportation from and to Batam. Six CPO (crude palm oil) terminals are being constructed at the Dumai port as a gate to channel CPO productions in the provinces of North Sumatera and Riau to Batam's giant CPO terminal in Kabil. Kuala Enok is the location of the second ocean port to be developed in Riau. Kuala Enok which is located in the southern part of Riau mainland and about five hours ferry ride from Batam, is planned to be the gate for Riau's agro-based products for SIJORI and export markets. Kuala Enok can also function as transshipment point for goods coming from the

southern part of Sumatera to be sent to the centre of SIJORI.

Provincial government has also increased the speed of road development in Riau hinterland. Constructions of the Eastern Trans Sumatera Highway and a collector road connecting the highway and Kuala Enok become top priorities in Riau province. The roads will increase Riau capacity in supporting business development in SIJORI.

IV. FACTORS INDUCING GROWTH IN SIJORI TRIANGLE

Growth and expansion of economic activities in Riau archipelago during the last three years, as described above, have been very impressive. Strong business motivations from the private sector, inducement for industry relocation due to changes in environmental regulations and shifts in international competitive structure faced by industry in developed countries, stronger political commitment from the governments involved and institutional progress in SIJORI, all contribute to the current state of development in Batam and other Riau islands.

As has been mentioned in Pangestu (1991), there are several motivations for private investment in Batam, and Riau islands in general. Motivations of the investors are to service the logistic base nature of Batam (oil mining industry), to cater Singapore market (food and agro-based industry), to take advantage of lower labor costs and available resources as well as to provide accommodation in anticipation of the growth of the SIJORI region.

The main motivation for the investments is to utilize lower labor cost and the proximity to Singapore. Combination of these two factors becomes a comparative advantage of Batam, Bintan and Karimun. The perceived complementarity between Riau islands and Singapore appears to be the main attracting factor to invest in Riau islands. Average daily wage for a semi skilled worker in Batam is currently Rp. 5,500 or US\$ 2.75. Proximity of Batam to Singapore will enable investors to get business supports and facilities from Singapore which has functioned as the regional financial and marketing centers for many ASEAN countries for a long time. Taiwan companies consider investing in Batam as one way of investment diversification with respect to locational or country risk.

In addition to the business motivations, inducement from the governments of Singapore, Japan and Taiwan to the business sector to relocate the 'dirty' and space consuming industries from their countries has also increased attractiveness of Riau islands. While relocation of space consuming industries to Riau islands does not seem to encounter any problem, investment in potentially polluting

industries would have to deal with the strict industrial-environment regulation adopted by the Indonesian government.

Agreement on the ASEAN Free Trade Area (AFTA) achieved in the January 1992 ASEAN Summit is expected to motivate more international investments to ASEAN countries. Optimism on Indonesian side says that Batam and other Riau islands would be the first among other alternative locations in ASEAN. Although it may be too early to speak of the AFTA announcement effect, there have been several MNCs which now viewing ASEAN as a big potential market and a competitive production base. So far, Japanese MNCs seem to be leading the formations of production network in ASEAN region.

Strong political commitments from Singaporean and Indonesian governments to jointly develop Riau archipelago increase the motivation of private sector - not only in Singapore but also in other investing countries - to invest in Riau islands. The signing of August 1990 Indonesia-Singapore agreement, formation of the Joint Committee for Riau Island Development at ministerial level, inter-ministerial meeting, joint promotions, plan to set up one-stop-service investment licencing office all shows that Indonesian government is very serious about development of Riau island through joint-industrial development.

On top of all those inducing factors, efforts toward harmonization of regulations and procedures has been taking place. There has been dialogues between Indonesia and Singapore to anticipate the potential legal problems which may appear from the closer economic ties. On immigration procedures, starting October 1991 Indonesian government issues smart cards to be used in place of passports for Singaporean who regularly work in Batam. This policy change has sufficiently reduced the time needed to follow the usual immigration procedures in Batam gate.

V. CURRENT ISSUES AND PROBLEMS IN RIAU ISLANDS DEVELOPMENT

Development of Batam and Bintan provides many economic benefits to Indonesia. Employment, foreign exchange earnings, increased infrastructures are just a few examples. However, despite the impressive growth and progress, there are still constraints and problems left uncontrolled or created along the process of development itself. Some problems are not simply based on the pure economic considerations, but on social and political perspective. While issues on inter-governmental discrepancies are being narrowed, some issues at Indonesian level have not yet found their converging points.

A. Resource Constraints: Land, Labor and Water

Land and labor are two factors considered as the main comparative advantage of Riau islands while water is recognised as the factor which will limit development of population and economic activities.

Despite the intensified land speculation, land availability has certainly not yet become a problem in Riau islands, especially in Karimun and Bintan. The inclusion of Rempang and Galang will even increase the availability of land in SIJORI. Interested industrial investors can always come and choose location within any industrial estate. In Batam, the problem is the inconformity between the land use plan and the actual use of the designated land. What becomes an industrial estate is a land formerly allocated for water catchment area; what becomes a housing area is a piece of land designated for fishery development. Significant deviation from the land use plan has been found such that a new land use plan is being prepared to accommodate changes in the function of several areas and to compensate land designated for special function such as water catchment. Deviations from the land use plan also push BIDA to require industries to conduct special investment to increase water catchment capacity of the island which in turn will increase the cost of investment. An official team is now urging the real estate investors to develop their properties in Batam or relinquish the land back to BIDA.

Availability of skilled labor is still a major problem faced by the industrial investors in Batam. Industrial estates such as Batamindo, in cooperation with some employment agents in Jawa and other provinces, is offering assistance in recruiting and training the new workers for companies interested to locate in Batamindo. This year, scarcity of skilled labor is expected to increase due to the coming operation of many industries. In the mean time, workers currently working in various industries are getting more skilled. Some are in the process of negotiating a raise on top of the 16% increase required by regulation starting July 1992. High cost of living in Batam pushes the minimum daily wage to Rp.5,500 at the current rate which is 220% of national average minimum.

Water supply determines the limit of growth for Batam and Karimun. Highly water consuming industry is on the negative list of Batam. In Karimun, investor is required to maintain their own water catchment area. The 4,000 hectares allocated for PPC includes land to be maintained for water supply purpose.

B. Distributional Issues

The soaring economic growth in SIJORI area gives rise to distributional issues at four different levels, namely between the

investors and local people, between Riau islands and mainland, between Riau and other provinces, and finally, between Riau province/Indonesia and Singapore. While Batam used to be considered as a minor irritant for Indonesia's economy, the inclusion of other islands in Riau may lead the judgement to 'a growing irritant'. Local people are concerned with not getting a fair share of the benefits generated from the development of their region. People in Bintan are also concerned about not getting a fair chance to participate in the development projects other than being unskilled construction workers.

Distributional issue between Riau islands and mainland also has its own dimension. Eventually, simultaneous development of Bintan by KPPR Team along with Batam which is under BIDA, is somehow induced by - among others - the perceived unfair sharing of benefits and participation in Batam development. Now, with concerted development efforts of Riau islands people in the mainland could potentially worry about not receiving a fair share of regional government budget.

Concern about cross provincial distribution is very similar. Competition from eastern Indonesia provinces to attract central development budget is one reason behind the postponement of Singkep project. Distributional issue between Indonesia and Singapore questions who gets most of the benefits of all development projects in Bintan and Batam. Some worries about the worthiness of channelling public money to develop infrastructure in Riau islands while foreigners are presumed to be the first beneficiary. While it is true that assessment of overall investment benefits shall be viewed in a long term perspective and their spillovers, immediate immeserizing in the economy of the affected local population (not local macroeconomy performance) are still to be minimized.

C. Social Problems

Rapid development in Batam has caused a 'crowding in effect'. People come from many other regions of Indonesia with a view to seek a better living. Then, housing appear to be major problem in Batam. The new migrants and people holding marginal jobs are bound to live in the 'unauthorized housing area' or shanty towns. Among those living in the shanty town are government employees who can not cope with the high cost of living in Batam.

Another social problem emerges from the unfair compensation for community's land which will be used for the location of private sector investments. People from several villages in Bintan are complaining about getting Rp.100 (S\$ 0.08) per square metre land they have to give up and a few thousand rupiah for every tree crops

(coconut or rubber) they sacrifice for the mega projects although government is providing a piece of land for every relocated family. People concern about not being able to recover to the same standard of living as before, especially those whose lives depend on income from the tree crops. *And yet, Singaporean investors are complaining about expensive land price in Bintan.*

D. Policy Issues

While gaps in inter-governmental policy issues for SIJORI is getting smaller, providing consistent and pro-community development policies remains a problem on Indonesia's side. Sometimes, it is difficult to find the ultimate objectives and priorities in the policies being implemented despite their over-emphasis on the macroeconomic benefits.

Simultaneous development of Bintan (and Karimun) industrial zones along with Batam do not seem to create a significant incremental benefit for Indonesia as a country as opposed to Riau province. Prior to the development of Bintan industrial estate, Indonesia was more in the position of seller's market vis a vis Singapore's industries which have been urged to relocate. Bintan industrial estate development has somehow turned the situation more toward a buyer's market. Batam, Bintan and Karimun are now competing for the same target markets. In addition to this, too many investments in industrial estates in SIJORI, may lead to excessive amount of capital sunk unproductively in the region (except for speculative purposes) and investment opportunities left unutilized in other parts of the country.

Development of Batam and Bintan as well as other islands in Riau is supposed to be coordinated by the vice chairman of KPPR Team who also holds the same position in BIDA. However, this high ranking position does not seem high enough to conduct an effective coordination of the two institutions. While Bintan is developing water production to supply Singapore, Batam and Singapore are discussing the cooperation in power generation and telecommunications system. So far, nothing was heard about Bintan-Batam cooperation or plan to jointly develop and share the use of an infrastructure or facility.

Consistency among policies and implementation of one particular policy has sometimes led to an uneasy situations. Inconsistency in the implementation of Batam land use plan is one example. What happened very recently is the inclusions of shipyard industry and container ports into the negative list of investment in Karimun and Bintan. It is interesting to note that the policy came out after plans and agreements to develop a petroleum processing centre and a

shipyard in Karimun, and commitment to develop Bintan industrial estate have been made. While economic and political policy strategies may change the decision for Karimun, it would be difficult to amagine a 6,000 hectare industrial estate without container port facilities.

The most sensitive part of policy issues is discussion on the ultimate objective and beneficiary of a development effort. Although everybody would agree with and applaud for the macroeconomic benefits, it is not easy to find a significant welfare increase at community level. Batam and Bintan will make good examples for this. The total integrated design system applied by Singaporean investors in Batam simply means domination of every line of business in the region regardless the previous existence of similar business. While nothing is wrong in the dollar and cent perspective, it does not look conducive to the community welfare. There are news about the opening of two car workshops in Batamindo Industrial Park and investment in trucking service by Singaporean companies. In Bintan, while Indonesian government is subsidizing the water supply project with US\$ 30 million for the water catchment area, it is very unlikely that Bintan community will enjoy a price of Rp.10/cubic metre clean water as Singaporean will. These situations -- which were regarded as the result of weaknesses in the policy system -- has somehow contributed to the perceived distributional issues across the border of the two countries.

VI. CONCLUDING REMARKS: PROSPECT AND NEED FOR POLICY REVIEW

Current situation in SIJORI would lead us to predict that two places in SIJORI, namely Batam industrial zones and Bintan tourism resort will grow faster than industrial zone in Bintan and Karimun. Bintan tourism resources will have better capacity to attract more visitors than that of Batam. On industrial zones, earlier developments of infrastructures, business facilities and linkages in Batam has provided the island with an advance standing position relative to other islands. Recent changes in the negative list of investments in Riau islands will put some clouds on the development of industrial estates in Bintan and petroleum processing centre in Karimun. Both projects would have to solve their problems first before going to the construction stages.

In tourism, there are ample opportunities for Indonesia, Malaysia and Singapore to cooperate in promoting market for resorts in the triangle. Shopping and leisure facilities make up a perfect combination to be offered from SIJORI tourism area. And the three countries have the capacity to do it through their international airline networks.

The turning of the market power from seller's to buyer's market

due to competition among Batam, Bintan and Karimun (if finally developed) to attract investors would slow down the growth of each island. In this case, Habibie's balloon theory may hard to materialize. If one inflates too many balloons simultaneously, he will exhaust his breath before any balloon get inflated sufficiently.

The main lesson from the current situation in Riau islands development is that Indonesia needs an effective coordination function at ministerial level. Potentially, only at this level the synchronization of plans and consistency of policies can be increased.

With respect to the welfare of local people which sacrifice their lands and live style for 'the good of outsiders', it is very much time for policy makers to start thinking in term of sustainable development concept: how an expansion of economic activities can be done with minimum *negative social externalities*. May be this is the only way to prevent the turning of 'compensation for the losses' to 'losses in the compensation'. What I mean by the latter phrase is that losses occur due to insufficient compensation. Macroeconomic benefits -- all its long term aspects and spillovers inclusive -- may not always be used to justify a development plan without appropriate evaluation and care of the externalities effect of activities involved.-

Appendix 1
Major Export Products from Batam (US\$ '000)

PRODUCTS	1986	1987	1988	1989	1990	1991 a/	
						Value	Share
Fish	449	483	429	3,319	1,945	2,747	1.3%
Live Pig	0	267	1,880	5,751	7,784	5,660	2.7%
Garment	0	3,252	4,209	4,758	4,741	6,058	2.9%
Metal Pipes	243	1,031	4,920	2,740	30,664	12,254	5.9%
Chemicals	153	0	8	157	1,185	1,109	0.5%
Electronics Component	0	0	1,813	2,289	16,998	78,115	37.4%
Oil Mining Equipment	0	0	23,483	9,037	63,898	53,780	25.7%
TV Modules	0	0	0	5,744	2,539	0	00.0%
Transport Equipment	0	0	0	313	7,470	3,042	1.5%
Cordless Phone	0	0	0	0	5,282	61,655	29.5%
Constr. Frame	0	0	0	725	784	7,830	3.7%
Spareparts	0	0	0	199	887	249	0.1%
Sawnwood	181	276	912	185	658	2,680	1.3%
Chips Wood	0	0	0	954	1,354	1,186	0.6%
Polyethelene Barge	0	0	0	0	0	509	0.2%
Total Batam	20,855	26,817	44,226	52,987	151,457	208,998	100,0 %
Growth Rate		28,6 %	64,9 %	19,8 %	185,8 %	38,0 %	
Total Riau (non-oil)	198,997	278,997	398,648	429,496	595,527	n.a.	
% Share of Batam	11	10	11	12	25	n.a.	
Total Indonesia (US\$ million, non-oil)	6,552	8,472	11,621	13,480	14,604	16,226	

a/ July Data are not included

Source: Badan Otorita Batam and BPS

Appendix 2
Cumulative Approved Domestic Investment in Batam (Rp. million)

PRODUCTS	1980 a/	1983	1985	1988	1989	1990	1991	
							Value	Share
Electronics	0	0	0	21,940	25,250	30,250	30,250	3.6%
Chemicals	0	0	0	0	1,100	226,100	226,100	26.6%
Oil Mining Equipment	0	0	34,936	53,145	60,412	60,412	60,412	7.1%
Steel & Iron	0	12,691	53,246	67,626	67,626	67,626	67,626	8.0%
Garment	0	0	0	7,980	7,980	7,980	7,980	0.9%
Food & Agriculture	0	0	0	0	0	9,462	17,662	2.1%
Real Estate	0	0	0	0	0	106,175	175,925	20.7%
Tourism	0	0	6,000	51,765	61,024	68,274	95,574	11.3%
Construction Material	8,758	13,588	23,084	32,601	32,601	32,601	32,601	3.8%
Rubber Glove	0	0	0	6,600	9,522	9,522	9,522	1.1%
Ship & Plane								
Building & Service	8,515	8,515	46,584	89,024	117,343	117,343	117,343	13.8%
Others	0	0	0	7,491	7,491	8,472	8,472	1.0%
Total	17,273	34,794	163,850	338,172	390,349	744,217	849,467	100.0%
- % of Indonesia	0.1	0.1	0.5	0.5	0.5	0.5	0.5	
Total Indonesia	17,403	28,048	33,747	63,344	82,938	142,816		

(Rp. billion)

Others: Wood, Shoes, Umbrella, Souvenir Industries
Source: Badan Otorita Batam

Appendix 3
Cumulative Approved Foreign Investment in Batam (US\$ '000)

PRODUCTS	1980	1983	1985	1988	1989	1990	1991	
							Value	Share
Electronics	0	0	0	500	500	26,000	88,198	10.2%
Chemicals	0	0	3,495	3,495	3,495	3,495	3,495	0.4%
Oil Mining Equipment	9,443	98,193	108,925	108,925	113,425	113,425	113,425	13.1%
Steel & Iron	4,000	76,465	76,465	77,465	125,465	127,665	131,965	15.1%
Plastic & Paper	0	0	0	0	0	5,600	11,535	1.3%
Food & Agriculture	0	0	0	17,300	43,600	53,600	53,600	6.2%
Real Estate	0	0	0	1,500	1,500	193,225	222,849	25.7%
Tourism	31,564	31,564	31,564	73,629	134,129	187,129	221,329	25.6%
Equipment Service	0	0	2,000	6,000	6,000	8,600	9,600	1.1%
Toys & Others	0	0	0	0	48,000	6,000	10,660	1.2%
Total	45,007	206,222	222,448	288,814	476,114	724,739	866,656	100.0%

Source: Badan Otorita Batam

Appendix 4
Cumulative Approved Foreign Investment in Batam (US\$ '000)

COUNTRY	1980	1983	1985	1988	1989	1990	1991		Indone sia '91 US\$ Bill	Share of Batam
							Value	Share		
Japan	4,000	4,000	4,000	24,000	54,000	54,000	61,780	7.1%	10,343.6	0.6%
Singapore	31,564	31,564	31,564	34,564	139,364	137,164	409,830	47.2%	1,235.1	33.1%
USA a)		0	151,765				177,596	20.5%	2,220.5	8.0%
Hongkong	0	0	0	0	0	14,500	38,500	4.4%	3,954.0	1.0%
Netherland	0	9,450	9,450	14,450	18,950	18,950	34,574	4.0%	1,947.9	1.8%
Swedia	0	0	0	16,300	16,300	16,300	16,300	1.9%	49.5	32.9%
Bahama	6,443	6,443	6,443	6,443	6,443	6,443	6,443	0.7%	31.2	20.7%
Panama	3,000	3,000	3,000	3,000	3,000	3,000	3,000	0.3%	420.5	0.7%
England	0	0	0	22,066	22,066	22,066	22,066	2.5%	1,036.8	2.1%
Others	0	0	0	0	48,000	69,725	96,567	11.2%		0.5%
Total Batam	45,007	206,222	222,448	288,814	476,114	724,739	866,656	100 %	39,782.2	2.2 %
% of Indonesia	0.6	1.7	1.6	1.4	1.8	2.1	2.2			
Total Indonesia (US\$ Billion)	12.134	14,320	21,038	25,757	34,507	39,782				

a/ Possibly two American oil companies started investing in the seventies but registered as Panama and Bahama based sompanies

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