

## **Deadly Coal**

### Coal Extraction & Borneo Dark Generation

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#### **Deadly Coal**

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#### **FOREWORD**

The collapse of social ecology in Kalimantan (Borneo Island) is irrefutable proof of the mining industry's failure to provide the basis for the prosperity of the island's inhabitants. Since 1968, PT Unocal/Chevron has been extracting oil in East Kalimantan and, to make things worse, Rio Tinto's gold mining operations in Kelian – which began in 1986 – have left a legacy of 77 million tonnes of tailings in the same province. Now the local residents face coal mining on a massive scale, which is reaching annual extraction rates of more than 200 million tonnes

Both the previous and the current government have treated Kalimantan as a commodity to boost national macro-economic performance rather than as a region capable of ensuring the survival of its people. The returns of this commodity trading are used as a source of foreign exchange to finance Indonesia's fast-paced development, always littered with corruption scandals, human rights abuses and environmental damage. The exploitation of Kalimantan just shifts from one commodity to the next: timber, oil, gold, oil palm and now coal.

Since the extractive industry became the idol of economic development, food security and energy security in East and South Kalimantan have become chaotic. Coal has caused the local government of East Kalimantan to lose touch with reality. The local people do not get to enjoy the wealth and prosperity derived from it – instead, they face continuous suffering and are headed for social, ecologic and economic bankruptcy.

All this suffering is caused systematically and in a planned way by the country's leaders. The same pattern is evident in all the other large islands of Indonesia: Sumatra, Sulawesi and Papua. These islands have natural resources in abundance but their people are starving in a land of plenty – an Indonesian paradox.

This report on Kalimantan's *deadly coal* shows how coal mining is already destroying the future of the people of Kalimantan. It brings together the results of research and shared learning carried out by JATAM and WALHI between 2007 and 2009 and it is a wake-up call for those in charge and for the people of Kalimantan. A call for immediate rescue measures before the future is lost because the island's ecological balance is damaged beyond its capacity to recover.

Let us all look for a way forward and act together!

- Siti Maemunah Coordinator of JATAM (Mining Advocacy Network)







## SAMARINDA KOTA YANG HIJAU, BERSIH & SEHAT



## ■ Part One **Development: Repeating the Same Mistake** Logging Concession 1998 in Kalimantan Logging Concession 1998 vs 2007 Kalimantan Logging Concession 2007 in Kalimantan Central Kalimantan South/Kalimania

## After Java's resources had been fully exploited, and for more than a century Sumatra's riches too had been extracted, it was Kalimantan's turn.

The oil boom enjoyed by Soeharto's regime in the beginning of the 70s will never return. The same is true of forestry: here the boom lasted from the late 1970s until the early 1990s, at the hands of logging concessionaires (HPH) and resulting in the massive deforestation of primary forests through out the Indonesian archipelago. Extensive forest fires and smoke haze, both worsened by drought, and the free fall of Indonesia's economy from 1977-1998, should have resulted in a serious evaluation of the development paradigm followed by Soeharto's regime. But this is Indonesia! The development model and approaches of Soeharto have regained strength since Megawati's presidency until the present day. Now Soeharto's development model is being rehashed with massive exportation of migrant workers, palm oil, and coal as the latest favourite commodities.

Linear thinking like this clearly proves some key points, that macro economic development practices applied in Indonesia since the Soeharto era always requires:

- social and political stability enforced by repressive tools and approaches, either subtly or with violence.
- vast areas of land easily obtained by powerful investors through land policies which deny the existence of customary laws and include incentives for land ownership for investment and business purposes.
- the availability of unskilled, uneducated and cheap labour systematically acquired through mass conversion of the farming population into labourers as well as the conversion of productive land into public infrastructure, industrial areas and housing.
- wholesale import of ready-to-install production technologies which have been reportedly proven in other countries and transplantation of the know-how needed to operate them
- facilities and infrastructure for industrial services through the establishment of road networks, bridges, various grades of sea ports and airports to facilitate the smooth flow of raw materials to the market.
- legal certainty to facilitate more investment through policies to cut red tape and through fiscal incentives.

The contribution of current primary commodities - migrant workers, oil palm and coal - to macro economic growth is enormous. But the impressive figures for development growth paraded by the government do not take into account the true social and ecological costs. Instead these costs are presented as the inability of people to understand the values of development. What is worse, those who oppose development are accused by the government of being anti-development. They are criminalised if they refuse to hand over their productive

lands, owned and worked for generations, to be converted for large-scale development schemes as part of the government's policy to make land available for investment and business.

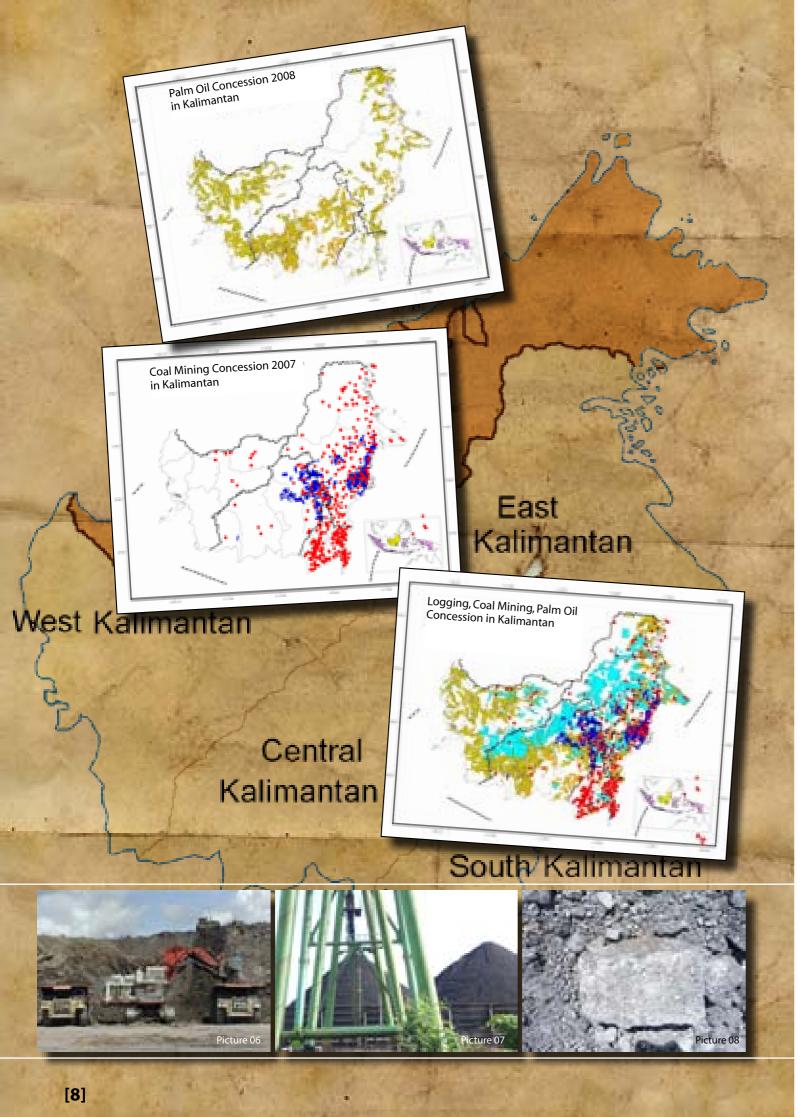
Examples of these policies are readily available, not only on the main islands of Java, Sumatra, Kalimantan, Sulawesi and Papua but also on smaller islands such as those in Nusa Tenggara and Maluku.

Kalimantan is an old and stable island geologically, characterized particularly by the absence of volcanoes. This means that ecosystem degradation, both natural and human-made, would be very difficult to reverse and to recover. Kalimantan's rich natural resources, including lowland natural forest, mangroves, peat and karst ecosystems, coal, large rivers, as well as oil and gas potential, do not guarantee the people of Kalimantan safe and prosperous lives. Since the capacity for exploitation in Java is declining, and for over a century, Sumatra's resources have been extracted, exploitation on a colossal scale has now moved to Kalimantan.

In Central Kalimantan, a project to achieve national food self-sufficiency, acquired one million hectares of a peat ecosystem for conversion into agricultural land. This is concrete proof of how social and ecological costs, born by the local people, especially those living in and adjacent to the project site, have been deliberately disregarded by Indonesia's 'linear-thinking' developmental model. This project, worth trillions of dollars, was taking away people's land even before the Environmental Impact Assessment (EIA) was approved. From the launch of the Peatland Development Programme (PLG) in 1995<sup>[1]</sup>, until the fall of Suharto from power in May 1998, 300,000 hectares of peatland was converted into agricultural land.

The failure of Soeharto's regime to handle the challenges of this peatland project created a living hell for indigenous people and local communities. The construction of canals through this sensitive ecosystem resulted in a lowering of the water table which in turn led to decreases in the amount of water available, a reduction in local fishery production and made areas more prone to fire. In 1997 the systematic deforestation of the area through burning, the cheapest way to prepare the land for cultivation, produced widespread smoke haze. The effect of this smoke haze, worsened by El Nino weather patterns, was a prolonged drought.

Following the abandonment of this mega-project by Soeharto, President Megawati launched a scheme to rehabilitate the peat ecosystem. This was continued by current President Susilo Bambang Yudhoyono with the issuing of Presidential Instruction No. 2/2007<sup>[2]</sup>. However, this law was a disappointment as it did not articulate clearly how it was to be implemented. Instead, it has led to more investment and exploitation of the area. Without





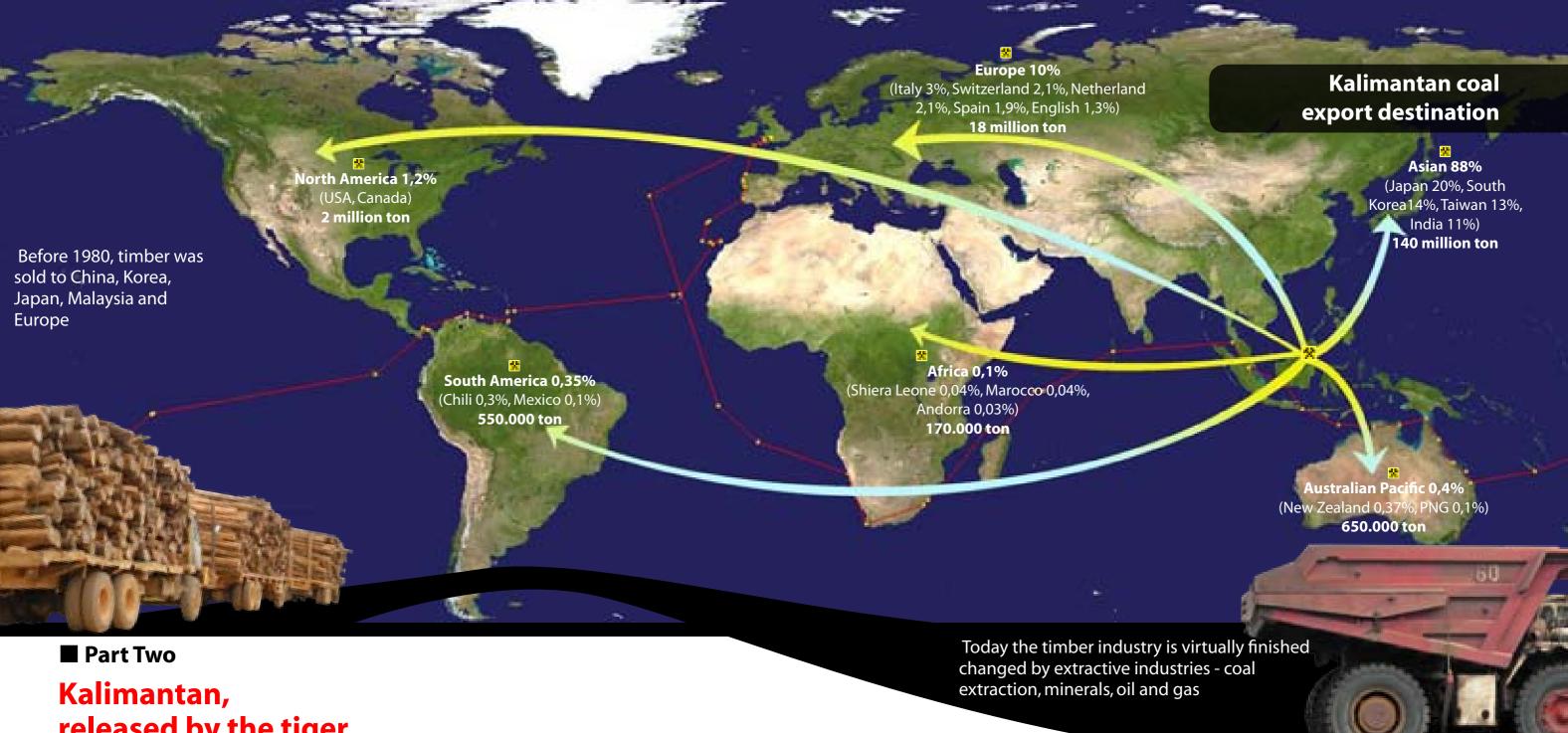
waiting for the completion of the Rehabilitation and Revitalization Master Plan, permits for oil palm plantations and coal mining have been and continue to be released by the district governments in Central Kalimantan.

The opening up and draining of this peat ecosystem in Central Kalimantan has caused large scale oxidation which in turn has increased carbon dioxide emissions. This is in addition to the CO2 emissions from the deforestation fires. According to a Wetland International report (2006) <sup>[3]</sup>, carbon dioxide emissions from peatlands throughout South East Asia from 1997-2006 was around 2 Gt/year (1,400 Mt from forest fires and 600 Mt from decomposition following draining). Approximately 1.8 Gt (90%) was estimated to come from Indonesia. The opening up of the peat ecosystems in Central Kalimantan, along with Riau province in Sumatra, is the largest contribution to these figures. This put Indonesia behind the US and China as the world's third biggest carbon emitter in 2006<sup>[4]</sup>.

Since the Conference of the Parties (COP 13) of the United Nations Framework Convention on Climate Change (UNFCCC) in Bali in December 2007, the eyes of the world have been focussed on Central Kalimantan. The region's increase in carbon emissions is seen by the government and many international agencies as an opportunity to raise funds through carbon based compensation schemes such as Reducing Emissions from Deforestation and Forest Degradation (REDD). Few discussions have been held on how to resolve the factors contributing to increased carbon emissions simply because of the costs involved in conservation. The rehabilitation needed for the peat ecosystems in Central Kalimantan is on such a large scale the cost is prohibitive. In the mean time, it is business as usual in Central Kalimantan. Coal extraction along the

upper reaches of the Kapuas River continues undisturbed by efforts to tackle climate change. Oil palm plantations continue to expand as well. Instead of improving people's safety and productivity, the political infrastructure which has proven its effectiveness in destroying social and ecological structures in order to better serve industrial interests, is continuing to support investment. The latest plan is to build a railway across Kalimantan to transport coal, forest and plantation products to their respective markets. Similarly there are plans to extend the Trans-Kalimantan highway network.

Grand development schemes are far removed from the bitter reality faced by people on the ground. Electricity blackouts – from one to several per day - are a regular occurrence. It is clear that Kalimantan's rich natural resources are not going to be used to meet the needs of the local people but to serve export markets. On the other hand the government keeps on working tirelessly to convince the public that people's needs will be met through the benefits of exported commodities. This nonsensical argument fails to take account of lessons from the past, the failure of Soeharto, and instead upholds the same paradigm "sell raw, sell cheap, sell all" for oil, gas, mineral, forest, palm oil and rice.



released by the tiger but caught by the crocodile

In the 1980s East Kalimantan produced 11 million cubic metres of timber<sup>[5]</sup> which was mainly exported. Nowadays the trend has shifted to (illegal) coal mining. East Kalimantan holds the export record of 120 million tonnes in one year.

Despite abundant natural wealth East Kalimantan continues to be characterised by poverty and marginalisation compared with other regions. This is worst for the indigenous inhabitants, the Dayak Peoples who live in or around the forest edges and who are now getting poorer and decreasing in numbers.

The government, once centralised but now regionalised, would rather see the jungles of Kalimantan as a commodity, than an ecosystem that supports the survival of its people. This commodity trading, littered with corruption scandals, uses foreign exchange to finance the development of Indonesia.

This great wave of commodity trading began with the exploitation of timber, moving on to oil and minerals and finally coal. Before 1980 timber was sold to China, Korea, Japan, Malaysia and Europe. This is no different from the export of coal today. The mode of exploitation, the actors involved and the monetary gain remain unchanged. East Kalimantan has fallen from the tiger's mouth into the jaws of the crocodile.

Massive deforestation throughout East Kalimantan started a year after Forestry Law No. 5 was passed in 1967. The river Mahakam was used to transport the timber out of the forested interior. It was then shipped to Java and Sulawesi and

from there on to China, Japan and Malaysia. This period, from 1968 – 1982, was a busy period in the timber industry known as 'banjir kap' [a logging system involving floating logs to the river along channels dug inland].

Today the timber industry is virtually finished. Uncontrolled greed and unlimited concessions have cleared the forests as there has been no replanting. Basically the forests in Kalimantan were not able to meet the demand of the timber industry. It is the indigenous inhabitants who are bearing the brunt of the impacts of this industry. One such impact is forest fires. In the last twenty years there have been three large forest fires in Kutai<sup>[6]</sup>, in 1982, 1994 and 1997. Forests which were decimated by logging before have now been completely destroyed by fire.

In the past year several plywood mills and concessions in East Kalimantan have stopped operating. In addition to workers being laid off, a further 4,562 employees<sup>[7]</sup> have been sent home and could also lose their jobs.

During the era of the timber industry, other extractive industries, such as mining, oil and gas also began. Evidence of this was the presence of multinational companies. In 1968, Unocal from America was in the Kutai Kartanegara area along the coast and other foreign companies were in the estuaries. The mountain areas were exploited by Rio Tinto, a joint UK-Australia based company involved in gold mining. This operation has left 77 million tonnes of tailings in the Namuk Dam in Kelian, West Kutai District<sup>[8]</sup>.

The timber era of East Kalimantan has finished but exploitive industries still remain with large scale oil palm plantations and coal mining. In the past six years the government issued thirty-three contracts of work to coal mining companies

[10]

#### ■ Six Companies ruling East Kalimantan



#### Contract: 1978

Concession area: 5.361 ha

#### **Production:**

- (2004) 1.8 million tonnes
- (2005) 1.6 million tonnes
   (2006) 1.6 million tonnes
- (2007) 0.0 million tonnes
- (2007) 0.0 111111011 toffiles
- (2008) 0.0 million tonnes

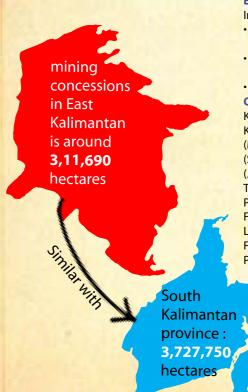
#### Shares:

In 2008, PT. Indo Tambangraya Megah Tbk. (ITM) owned 99,99% PT. Kitadin

#### Exsport

Recorded exports: around 80,000 tonnes to South Korea and Taiwan

Seno-Indo Co. Ltd. (Taiwan), Korea Western Power Co. Ltd. (South Korea)





#### Contract: 1982 - 2023

#### Concession area: 50.400 ha

#### **Production:**

- (1993) 1 million tonnes
- (2007) 20.5 million tonnes, with sale percentages:
- 70% to exsport
- 30% to domestic needs
- (2008) estimated to be about 22 million tonnes

#### **Shares:**

Kideco Jaya Mandiri shareholders are:

- 49% Samtan Co Ltd (South Korea)
- 46% PT Indika Inti Corpindo (a subsidiary company of PT Indika Energy Tbk (Indika Group (Indonesia))
- 5% PT Muji Inti Utama (Indonesia)

#### **Exsport:**

In 2008, PT Kideco Jaya Agung exported:

- 85% to Asia (South Korea 22%, Taiwan 13%, India 11%)
- 12% to Europe (UK 5%, Slovenia 3%, Italy 2%)
- 3% to other countries (New Zealand

#### Consumers:

Korea East West Power Co. Ltd (South Korea), TNB Fuel Services Sdn. Bhd. (Malaysia), Kumho Petrochemical Co. Ltd (South Korea), J-Power Resources Co. Ltd (Japan), China Minerals Co. Ltd. (China), Taiwan Power Company (Taiwan), Castle Peak Power Company Ltd Hk (Hong Kong), Feni Industry (Slovenia), Genesis Power Ltd (New Zealand), International Power Fuel Company Ltd (UK), Korea Southern Power Ltd (South Korea), etc.



#### Contract: 1982 - 2021

Concession area: 90.960 ha

#### **Production:**

- (1991) million tonnes
- (2007) 38.4 million tonnes, with sale percentages :
- to xxsport 90%
- to domestic needs 5%
- (2008) 37.5 million tonnes, with sale percentages

#### Shares:

PT Kaltim Prima Coal shareholders are:

- 65 % PT. Bumi Resources Tbk (Indonesia)
- 30 % Tata Power Ltd (India)
- 5 % PT. Kutai Timur Energi (Indonesia)

#### **Exsport:**

In 2008, PT Kaltim Prima Coal exported:

- 83% to Asia (Japan 31%, Taiwan 19%, India 10%)
- 16% to Europe (Switzerland 6.9%, Netherlands 5.6%, UK 1.5%)

#### and the rest to the USA

#### Consumers:

Taiwan Power Company (Taiwan), NS Resource Net (Japan), National Power Corporation (Filipina), IEG Limited (Hongkong), CLP Power Hong Kong Limited (Hongkong), TNB Fuel Services SDN, BHD (Malaysia), Toyota Tsuho Corporations (Japan), Coaltal Energy Private, LTD (India), Hokuriku Electric Power Company (Japan), BLCP Power (Thailand), Mitsubitshi Corporation (Jepang), Guangdong Power Industry Fuel Co. Ltd (Japan), Korea Southern Power, Ltd (South Korea), B.M.A. BV (Netherlands), Nan Ya Plastics Corporation (Taiwan). Whilst the domestic market are Taniung Jati B, and Freeport, Inc

(PKP2B)in East Kalimantan and 1,212 mining permits (KP)<sup>[9]</sup>. The more decentralised government has become, the easier it is for both local and international corporations to obtain coal mining permits. The Short-Term Development Plan of East Kalimantan Province for 2005-2025 sets aside 2.49 million hectares of agriculture land for food production and horticultural crops. Conversely the government has allocated 3.12 million hectares for KP mining concessions. This is an area equal in size to the whole of the Province of South Kalimantan.

Predicted coal reserves of around 1.983 million tonnes have greatly excited the local government of East Kalimantan. Regional GDP in East Kalimantan reached IDR 176.1 trillion in 2005. Correspondingly the local government views extractive industries as an essential priority. This is the largest provincial economy in Kalimantan. For the central government in Jakarta, East Kalimantan is like an ATM. In 2008 coal from East Kalimantan accounted for around 70% of the national total<sup>[10]</sup>.



#### Contract: 1983

Concession area: 120.000 ha

#### **Production:**

- (1994) 304,000 tonnes
- (2007) 11.821 million tonnes, with sale percentages:
- 60 % to exsport
- 35% to domestic needs

#### Shares:

PT Kaltim Prima Coal shareholders are:

- 51% PT. Armadian Tritunggal (Indonesia)
- · 39% Rognar Holding B.V. (Netherlands)
- 10% Sojitz Corporation (Japan)

#### **Exsport:**

In 2008, PT Berau Coal exported to:

- Korea 26%
- China 18%
- India 16%
- Other countries 39%

#### Consumers:

Adani Global Pte Ltd (Singapore), CLP Guangxi Fangchenggang Power Company, Ltd (China), Korea Western Power Co. Ltd (South Korea), Sino-Indo Co. Ltd (Taipei Taiwan), Hua Yang Electric Power Co. Ltd



#### Contract: 1988

Concession area: 25.121 ha

#### **Production:**

- (2004) 7.9 million tonnes
- (2007) 11.5 million tonnes

#### Shares

In 2008, PT Indo Tambangraya Megah Tbk held 99.99% of PT Indominco Mandiri.

#### Exsport:

In 2008, PT Indominco Mandiri exported:

- 92% to Asia (Japan 24%, South Korea 16%, China 13%)
- 8% to Europe (Italy 7%)

#### Consumers:

CLP Guangxi Fangchenggang Power Company Ltd (China), Enel Tradespa (Italy), Ho-Ping Power Company (Taiwan), J-Power Resources Co. Ltd. (Japan), National Power Corporation (Philippines), Sumitomo Corporation (Japan), Formosa Plastic Corporation (Taiwan), Banpu International Ltd (Thailand), TNB Fuel Services Sdn.Bhd. (Malaysia), China Minerals Co. Ltd (China)

#### Interrex Sacra Raya

Contract: 1997

Concession area: 15.650 ha

#### **Production:**

- (2006) 213.000 tonnes
- (2007) 223.000 tonnes

#### hares

- PT Interrex Sacra Raya shareholders are:
- 30% PT. Persada Capital Investama (Indonesia)
- 30% PT. Sinar Ganda Jaya (Indonesia)
- 25% Multi Corporation Pte. Ltd (Singapore)
- 15% Individual investor (Indonesia)

#### **Exsport:**

Coal is exported to Japan.



Along with the increase in coal extraction, local and central government has failed to address the following problems:

- Unemployment
- Food Sovereignty
- Environmental Disaster
- Human Rights ViolationOther health problems



The number of people living below the poverty line in March 2007<sup>[11]</sup> was around 324,800 or 11.04% of the total population of 2,957,465. This was an increase of 25,700 on the previous year of 299,100 or 10.57%.

The three cities with the highest rates of unemployment<sup>[12]</sup> are Samarinda with 31,959 people, Balikpapan with 31,019 people, and Kutai Kertanegara with 23,591 people. Samarinda and Kutai Kertanegara have the greatest number of mining concessions in Indonesia, a total of 781<sup>[13]</sup>. The mining industry is unlikely to solve unemployment problems since the industry is capital- and technology-intensive rather than labour-intensive.

Food security in East Kalimantan is another nightmare. With a population growth rate of 3.7% per year<sup>[14]</sup>, the province is not able to meet the basic needs of its people.

In 2008, rice production was 570,000 tonnes<sup>[15]</sup> and was predicted to fall short of meeting local needs. To meet this shortfall the government 'imported' 20,000 tonnes of rice from South Sulawesi and Java<sup>[16]</sup>. The same situation happened with meat. Four hundred and ninety cows were shipped in from West Nusa Tenggara and South Sulawesi, providing 83% of all protein needs<sup>[17]</sup>.

Other impacts of coal mining- ecological disasters, displacement, human rights abuses and health issues - have not yet even been mentioned.

[12]











#### Contract: 1999

Concession area: 6.486 ha

#### **Production:**

- (2000) 246 tonnes
- (2007) 3,7 million tonnes

PD Baramarta is owned by the Local Government of Banjar (Indonesia)

#### **Exsports:**

The main export destinations of PD Baramarta are Hong Kong, India, Thailand, Malaysia, and Japan



Concession area: 70.153 ha

#### Production:

- (1990) 454,000 tonnes
- (2006) 15,3 million tonnes
- (2008) 15,3 million tonnes

#### **Shares:**

PT Arutmin Indonesia's shareholders are

- PT. Bumi Resources Tbk 99.99% (Indonesia)
- PT. Amara Bangun Cesta 0.01% (Indonesia)

#### **Exsports:**

- 90% to Asia

#### **Consumers:**

Indocoal Resources (Cayman) Limited (Pulau Cayman)



#### Contract: 1981 - 2011

In 2008, PT Arutmin Indonesia exported:

- 10% to Eropa

Hongkong Qinfa Trading Ltd (Hongkong),



- Europe 23% - North America 5% - Other countries 2%

**■ Three Rules South Kalimantan** 

Contract: 1982 - October 2022

- (2007) 36.1 million tonnes, with sale

- (2008) 38,5 million tonnes

PT Adaro Indonesia shareholders are:

- PT. Alam Tri Abadi 60.23% (Indonesia)

- PT. Viscaya Investment 28.33% (Indonesia)

- Indonesia Coal Pty, Ltd 4.67% (Australia)

- Mec Indo Coal, B.V. 0.93% (Belanda)

In 2008, PT Arutmin Indonesia exported:

PT. Dianlia Setyamukti 5.84% (Indonesia)

Concession area: 35.800 ha

- (1992) 1 million tonnes

**Production:** 

percentages:

#### **Consumers:**

- Asia 69%

Adani Enterprises Ltd (India), Atel Energy SRL (Italy), Castle Peak Power (Hong kong), China Steel Corporation (Taiwan), Coaltrade Service International PTE Ltd (Singapore), Coral Bay Nickel Corporation (Phillipines), Devendran Coal International Ltd (India), Donholm-Barwil Limited (UK), Eastern Energi Corporation (Singapore), Glencore International AG (Switzerland), Guangdong Zhenrong Energy Co. Ltd (China), IEG Limited (Hong kong), IMR Metallurgical Group Resources A.G (USA), Indocoal Resources (Cayman) Limited (Cayman Islands), Japan Kenzai Co. Ltd (Japan), J-Power Resources Co. Ltd (Japan), Matias Gonzales Chas, S.L (Spain), Mitsubishi Material Corporation (Japan), PSEG Energy Resources & Trade LLC (USA), Taiwan Power Company (China), Tata Power Company Limited (India), TNB Fuel ServiceSDN BHD (Malaysia), Union Fenosa Generacion S.A (Spain)

Similar to its neighbour, South Kalimantan's forests are viewed merely as targets for exploitation only the commodities are different. During the New Order the forests were seen first as timber stands, then as land for large scale palm oil plantations and finally as areas for

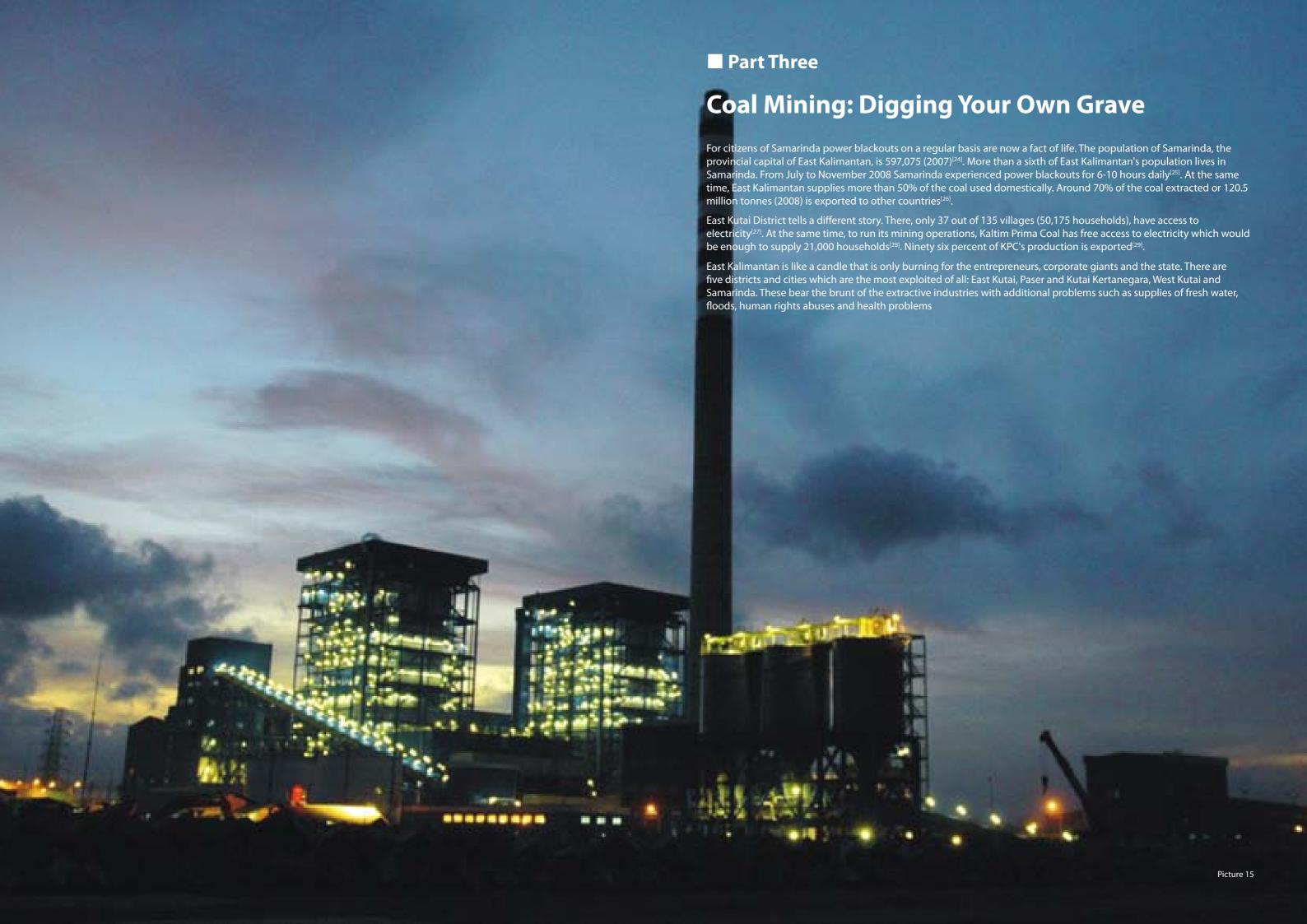
Up to 1995/1996<sup>[18]</sup> there were eleven timber concessions covering 1,054,240 hectares. Most of these concessions were in Meratus, the last protected area in the province. As a result 30% of Meratus's forests were destroyed by 2000. Official data from the Provincial Forestry Agency suggests that critical land within forest areas covers 187,384.59 hectares.

In the early 2000s, large scale oil palm plantations were started. Areas reserved for oil palm plantation development totalled 955,085 hectares[19] spread over eight districts. In 2004 318,551 hectares had been converted<sup>[20]</sup> including protected forest areas. Around 431,215.47 hectares of forest area was used to grow oil palms<sup>[21],</sup> 6,219.67 hectares was a Nature Reserve and 5,385.67 hectares was Protected Forest.

Today the income generated from extractive industries dominates South Kalimantan's GDP. Up to 2008, there were at least 280 companies holding KP permits in the forests covering an area of 553,812 hectares<sup>[22]</sup>. These calculations do not include Corporations in the process of applying for permits and contracts of work (97 KPs and 14 PKP2Bs covering a total area of 50,278.59 hectares)[23].

Is this achievement the exploitation of South Kalimantan?

[14] [15]



## PT. KPC ensures a Dark Future for East Kutai District

#### **68 coal mining permits**

If it continues to rely on the exploitation of non-renewable resources such as coal, East Kutai District will become a ghost town after the mining boom is over.

#### **Mine Poverty**

In East Kutai District, from a population of 203,156, 48.25% or 98,025 people, are regarded as being poor. Most of them live around the mine.

### **High Unemployment**

The mining sector is obviously not the solution to unemployment. The proindustry local government of East Kutai prioritises mining solely to pursue good macro-economic performance figures for regional revenues.

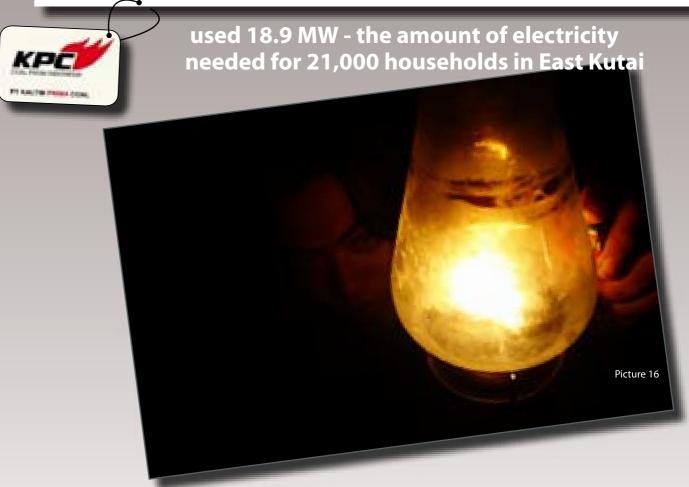
#### **Electricity Crisis**

In East Kutai, the electricity needed by 50,175 households is 45 MW. The total power consumed by KPC in its coal production is three times larger than the whole of East Kutai District.

PT KPC's power consumption

			2006		2007	
No	Energy	Source	Electricity production	Fuel Consumption	Electricity Production	Fuel Consumption
1	Electricity	PLTU KPC (KPC's coal- fired power station)	66.886,80 MWh	40.464,30 tonnes coal	68.069,2 MWh	41.119,6 tonnes coal
2	Electricity	Genset generator	31.318,89 MWh	8.520,78 kL solar	34.256,64 MWh	9.384,5 kL diesel
3	Electricity	PLN (State Electricity Company)	Nil	Nil	Nil	Nil

Source: Sustainable Development Report, 2007



Through the Mahakam system, the installed capacity of the East Kalimantan power sector is 262 MW, while operating capacity is 204 MW and peak load 196 MW<sup>[30]</sup>. The power generated by the Mahakam system, however, is only able to supply 610 villages out of a total number of 1,410 villages (43.26%)<sup>[31]</sup>. A capacity of 180MW would be needed to supply all customers currently on the waiting list<sup>[32]</sup>.

The three districts which have the lowest levels of electricity supply<sup>[33]</sup> are East Kutai, West Kutai and Berau. Only 27% to 38% of a total of 475 villages in these three districts have (government supplied) electricity.

At the same time there are three giant mining companies operating in these areas, PT Kaltim Prima Coal (KPC), PT Indominco Mandiri and PT Perkasa Inakakerta, which supply most of the coal in East Kalimantan. Total production of the three companies in 2008 was 48.4 million tonnes<sup>[34]</sup>.

This injustice is palpable in the district of East Kutai. In 2008 the district had a total of 50,175 households spread over 135 villages<sup>[35]</sup>. Only 37 villages (27%) have electricity. Assuming an average household has a supply of 900 watts, then the total amount of electricity needed to supply all 50,175 households is 45,157,500 watts or 45 MW<sup>[36]</sup>.

PT Kaltim Prima Coal (KPC) operates in this same area, producing 48 million tonnes of coal<sup>[37]</sup>. KPC has built the Tanjung Bara power plant, with a capacity of 10 MW<sup>[38]</sup> and two reserve diesel power plants (PLTD) with a capacity of 8.9 MW<sup>[39]</sup>. With a total capacity of 18.9 MW PT KPC could supply electricity to 21,000 households in East Kutai.

The power plant covers an area of 1.8 hectares and each day consumes 96 tonnes of coal, 120,000 litres of fresh water for the boilers and at least 302,400 litres of sea water as coolant<sup>[40]</sup>. These processes produce 2.3 tonnes of waste fly ash and 1.5 tonnes of bottom ash per day.

PT KPC plans to increase their production to 70 million tonnes of coal by 2010<sup>[41]</sup>. This plan will require increasing the supply of electricity to 152 MW<sup>[42]</sup>. This is equivalent to three times the electricity needs of the residents of East Kutai. This is almost equal to the electricity generated by the Mahakam System, up to 210 MW, which also supplies the cities of Balikpapan, Samarinda, Kutai Kertanegara, Tenggarong, Loa Janan and Samboja<sup>[43]</sup>.

[18]





#### Six years in Jail

: Syaukani HR Name

Position: Head of the District of Kutai Kertanegara (2005-2010)

: Corruption of 120 billion<sup>44</sup> Rp

#### Four years in Jail

: Syamsuri Amsar

Position: Vice Head of the District of Kutai Kertanegara (2005-2010)

Case

: Social Assistance corruption of 124 billion Rp

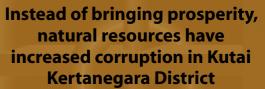
#### **Appeal in the Supreme Court**

: Rachmat Santoso

Position: Chairperson of the District Assembly (2005-

2010

: Border Development, Kutai Kertanegara District, Samarinda 1.182 billion Rp.



Up to 2009, Kutai Kertanegara District had issued 687 KP permits<sup>[45]</sup>. In 2007-2008 alone, 247 permits were issued<sup>[46]</sup>. That's one permit issued every two days. Comparing these figures with the total numbers of villages in all districts, which is 227 villages, the ratio is two mining companies to every village. Natural resources, instead of creating prosperity for local residents have instead fostered corruption. Kutai Kertanegara District is known as the most corrupt district in East Kalimantan Province. There have been eight senior district government officials imprisoned within the past six years on corruption charges[47]. The corruption started from the top with the district head (Bupati), the deputy district head and included the chair and vice-chair of the district assembly. The district head for the 2005-2010 period is in jail for corruption of 124 billion Rp.[48] In addition, 37 members of local government (2004-2009 period) have been involved in the corruption of Social Assistance. However, only two of these 37 members are official suspects<sup>[49]</sup>.

The corruption cases have accelerated changes in local government personnel. In the past four years there have been four different district



Abuse of citizens' rights occurred on 20 August 2008 when the East Kalimantan Regional Police Mobile Brigade and the Kutai Kartanegara District Police reacted violently to citizens of Bangun City. The people were demonstrating to demand the return of their land which had been allocated to PT Arkon in Semaleh Village, Bangun City District. The protesters were beaten, kicked, and even shot. One person, named Serin, was killed, four other people were injured and two have been maimed for life. Another 24 people were imprisoned with seven months jail sentences handed down by Tenggarong State Court. The legal justification for this was that the protestors were carrying knives and creating unrest. In contrast, no trial has been held for the police officers involved in the shooting and killing.



#### **Permits**

There are 87 KP mining permits and 3 PKP2B coal contracts of work spread over 20 districts. Just three companies mine 9.7 million tonnes a year.

19.000 18.500 18.000 5 17.500 17.000 **글** 16.500

16.000

There are 21 subdistricts in West Kutai District and there are coal mining operations in most of these. Next to mining sites it is very common to find prostitution, sometimes as many as three brothels near each mine. For example, in Melak District, near the village of Muara Bunyut village, there are four brothels near PT Gunung Bayan Pratama Coal (an Indonesian company) and PT Trubaindo Coal Mining (Thai).

One brothel was moved from Muara Bunyut village, as it was next to an area where the government planned to build a school. Unfortunately it is still relatively close to the previous site, so the elementary school will be close to a brothel and will have a view of trucks going back and forth transporting coal.

The increasing number of people with sexually transmitted diseases is nothing new in this area. Last August (2009), the East Kalimantan Post reported that numbers of people suffering with Gonorrhoea had reached 39. The local community health centre said the actual figures were much higher than those reported in the newspaper as many patients go directly to private doctors' practices instead of coming to the health centre or any other public health facility. This is understandable given sexually transmitted diseases still carry a stigma. Unfortunately those infected tend to be in the productive age range of 20-40.

The number of people suffering from Acute Respiratory Tract Infection (ISPA) is not included in this Picture . In 2007, West Kutai Public Health Service recorded 19,375 patients with Numbers of people who suffer from ISPA in West Kutai

SPA. This was an increase from 17,373 in the previous ear. Records in 2008 showed that 2,233 of those with ISPA were babies and 5,701 were children[51].

t is not hard to imagine what kind of blighted future there will be for this generation born in West Kutai, facing the possibilities of acute respiratory tract infections and sexually transmitted diseases later on

What kind of blighted future there will be for this generation born in West Kutai, facing the possibilities of acute respiratory tract infections and sexually transmitted diseases later on in life.



### Floods, Coal Mining's gift to the City of Samarinda



Previously, major floods only hit the city three to five times a year. For example, flooding occurred in North Samarinda in July-August 2008. The flood water comes from the Mahakam River (Pasang) and the volume of water is increasingly high.

Although previously uncommon, since coal extraction has increased in the last four years, floods have now become routine. From November 2008 until May 2009, Samarinda was continuously flooded and flooding was widespread in almost all districts. In those six months there were four major floods. Each time, an area inhabited by around 10,204 families in four subdistricts (North Samarinda, Ulu, Ilir, and Sungai Kunjang) was flooded. This has now become a flood-prone area. When there are floods almost all the main streets in Samarinda are affected [52].

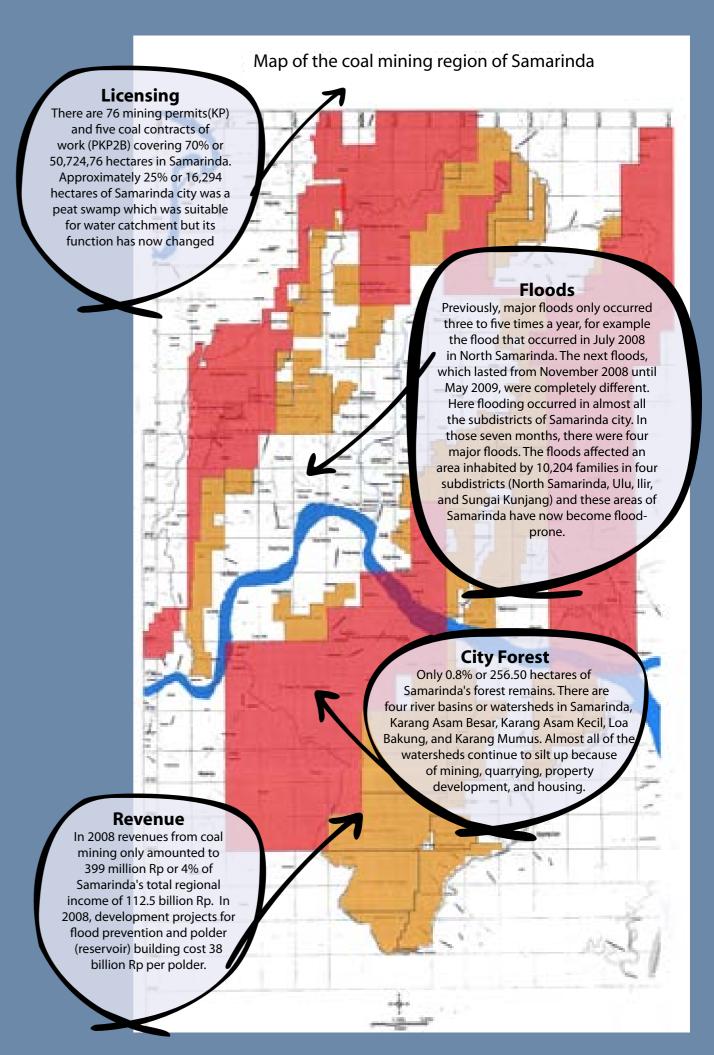
Since then many people have started to raise the foundations of their houses or even build pole houses. Many have sold their houses off cheaply. Floods also disturb the local economic structures, for example transportation. There are 500 public transport vehicles (known as Angkutan Kota) on the city's transportation B-route, which serves the flood-prone area i.e. North Samarinda, and Samarinda Ilir and Ulu, and Sungai Kunjang<sup>[53]</sup>. Consequently the drivers' average earnings of Rp. 85,000 per day have been reduced. When there's flooding, they can't go out on the roads.

Moreover, the flood prone-areas also include traditional markets like the Merdeka Market, Rahmad, Ijabah, and Segiri<sup>[54]</sup>. Many customers are now reluctant to go shopping.

Accumulated damage to natural resources, particularly the damage caused by coal extraction, has given Samarinda the new name of "flood city". At the same time, the income from this industry contributes very little to local revenues. In 2008, income from coal mining only amounted to 399 million rupiah, or 4% of Samarinda's total regional revenue (PAD) of 112.5 billion Rp.<sup>[55]</sup>.

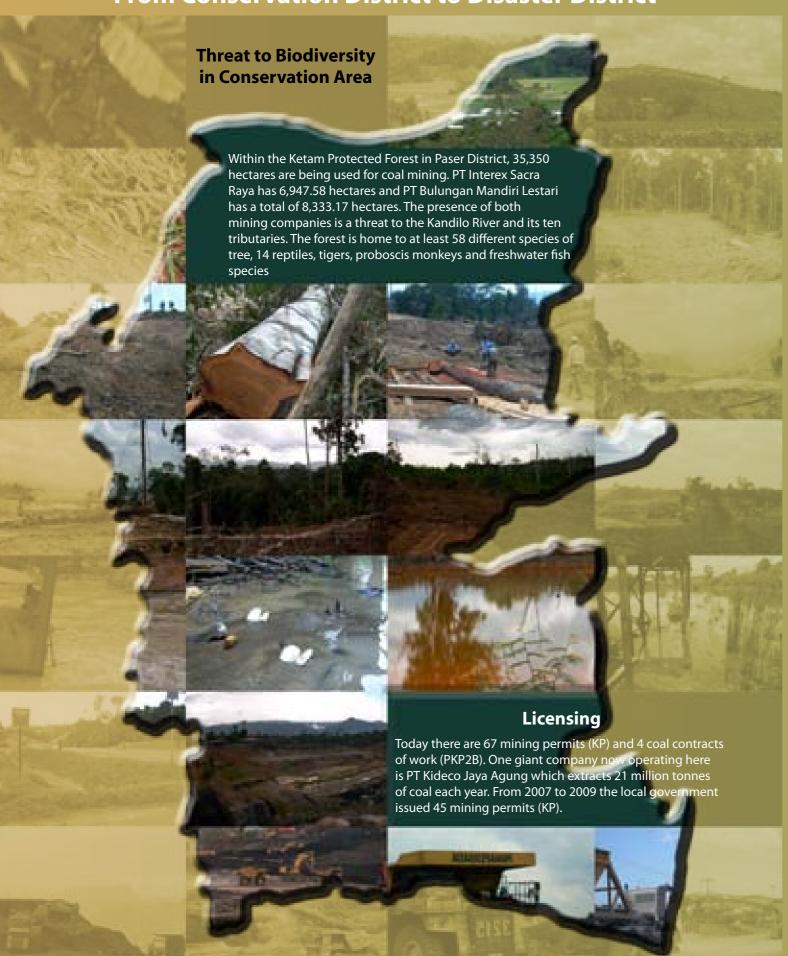
Unfortunately, the cost of flood prevention is greater than this. In 2008, Samarinda city financed flood prevention projects and built polders (large water storage reservoirs). Each polder costs at least 38 billion rupiah. For example, building the Air Hitam polder cost 63 billion rupiah. Now Samarinda is planning to build another five polders.

Indeed, if coal mining continues, Samarinda will go bust.



[24]

## Paser, From Conservation District to Disaster District



## ■ Dangers of Mining to the Kandilo watershed: the water source for five subdistricts is at risk.

Residents of five subdistricts in the lower parts of the Kandilo watershed, some 8,009 households, are now facing disruption and threats to their clean water supplies. The Regional state-owned water company (PDAM) in Paser is making a loss, with production costs now four times higher than in 2004. Laboratory tests show high levels of turbidity in the water - 1600 NTU (Nephelometric Turbidity Unit), forcing PDAM to use four times more chemicals than usual in the water. The Kandilo watershed area is the largest in Paser District covering 441,619 hectares or 30% of Paser's total land area<sup>[56]</sup>. The activities of KP Kideco Jaya Agung from South Korea and PT Interex Sacra Raya in the upper river area of Ketam-kandilo must be held responsible for these negative changes.

## ■ Displacement of Indigenous Communities

Mining physically alters rivers systems. For example it has polluted the Samurangau and Biu Rivers so that they're no longer safe to be used by the local residents for their daily needs. Nowadays floods occur more frequently, at least three times a year. Floodwater used to be harmless but now it is lethal for crops because the water is mixed with mud and mining waste. Since the mine started in 1982, Kideco has displaced Indigenous Dayak from their sacred lands, an area of approximately 27,000 hectares<sup>[57]</sup>. The Dayak are prohibited from any agricultural or productive activities.

Declared as a Conservation District on the 29th June 2006, Paser now has four protected forests: Ketam Mountain Forest in Muara Komam, Sawang Lowland Forest (Muara Samu), Lumut Mountain Forest (Kuaro, Muara Komam, Long Ikis and Long Kali), and Samu Lowland Forest (Muara Samu, Muara Komam) and two nature reserves, Adang and Teluk Apar.

However, within 2 years from now, the district will be a disaster zone as the Paser District government is continuing to issue more KP mining permits increasing the number of permits from 22 to 67<sup>[58]</sup>. The additional 45 permits cover an area of 248,978 hectares in total. These figures do not include four coal mines with PKP2B contracts. The entire Paser District only covers 1,148,209 hectares

Protected areas are now threatened by coal mining activities. The Ketam Mountain Forest has been damaged by PT. Interex Sacra Raya (ISR) and also PT Bulungan Mandiri Lestari (BML) which have 6,947.58<sup>[59]</sup> and 8,333.17<sup>[60]</sup> hectares respectively. This mining has also threatened the existence of the Kandilo River.

The future disaster will stem from the main water source for Paser communities, the area supplying the regional water utility (PDAM). This is the Kendilo Basin, an area of 441,619 hectares and about

30% of the total area of Paser District. The Kendilo basin extends to around 235 km with 9 sub-basins. The sedimentation caused by mining will be the most significant factor. In November 2006, the water service was cut off for over a week. Results of laboratory tests showed an error or an unreadable index of 1600 NTU with the colour of the water having changed to that of milky coffee. There are 43,161 households in Paser District whose access to clean water is now threatened.

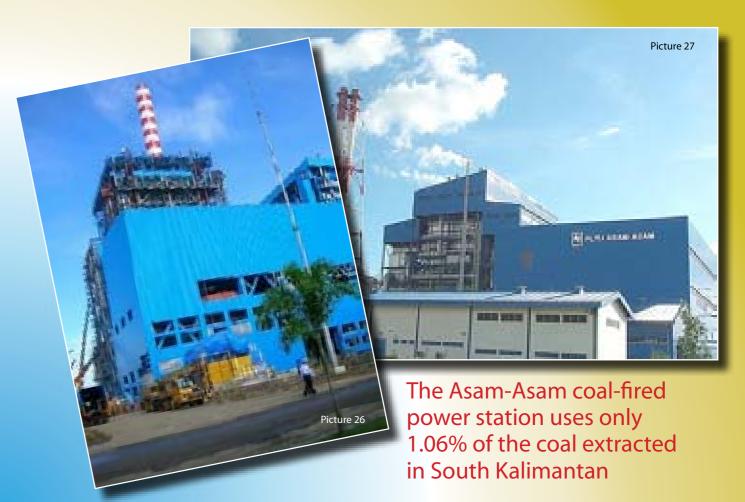
Disasters are not limited to the hill areas but are also affecting coastal areas. Since 2004 the fishing village of Air Mati (Dead Water) one of 17 villages along the coast of Adang Bay Nature Reserve and Apar Bay, tried many times to report the collapse of their livelihoods to Paser's District assembly. Their traditional fishing equipment, called *rengge*, was damaged by a barge from PT Kideco Jaya Agung. The same thing happened in Ponding village which has a population of 1,337 people. Seventy nine percent of the village population are traditional fisherfolk, and the rest are farmers.



[26]

## **South Kalimantan Energy Robbery**





South Kalimantan is the second largest coal producer in Indonesia, and yet almost every day parts of the province suffer power cuts. The reason given is to save energy. There is no schedule. The power can be cut for between 2 and 3 hours every second day. Moreover, the cuts affect some industrial uses, including street lighting.

Provincial energy needs have reached 270 MW<sup>[61]</sup> but the state power company is 30 MW short of this amount due to a variety of problems with the generators. There are 21,000 new customers waiting to get electricity<sup>[62]</sup>. The energy needs of the citizens in this province have been neglected in order to meet foreign demand.

The benefits of coal mining and supplies of fuel have not been seen by the citizens of South Kalimantan. South Kalimantan's fuel has been stolen and used to transport the coal from the hundreds of mining permit areas (KP). The story begins on the Highways of Tapin District. By the middle of 2009 the rate of coal transportation was as high as 2,473 vehicles per day<sup>[63]</sup> in this one district alone. In Banjar and Banjarbayu District alone, there are no less than 1,300 coal trucks travelling each day. Assuming that every truck needs 20 litres of diesel each way, the total amount of diesel needed each day could be as much as 49,460 litres<sup>[64]</sup>. This amount is enough to generate electricity for at least 21,000 homes<sup>[65]</sup>. These figures do not include the fuel used by the large scale mining companies (those with PKP2B permits).

Over 73% of the coal mined in South Kalimantan is exported. The remainder of around 27% is for domestic use - for energy and industry in Java, Sumatra, West Nusa Tenggara and Kalimantan itself. Unfortunately coal is not used for the needs of the local residents.

WALHI estimates that coal demand for South Kalimantan province is only 1.69% of the total production of 78.5 million tonnes in 2008. The electricity generated by the Asam-Asam power station, around 230 MW, must also be shared with Central Kalimantan.

The second largest electricity user is a cement factory, using only 380,398 tons or 0.6%. It is predicted that coal needs (from South Kalimantan) will increase sharply in future years, with the development of energy-hungry industries such as ore processing plants and pulp and paper. The output of these new industries will also be exported.

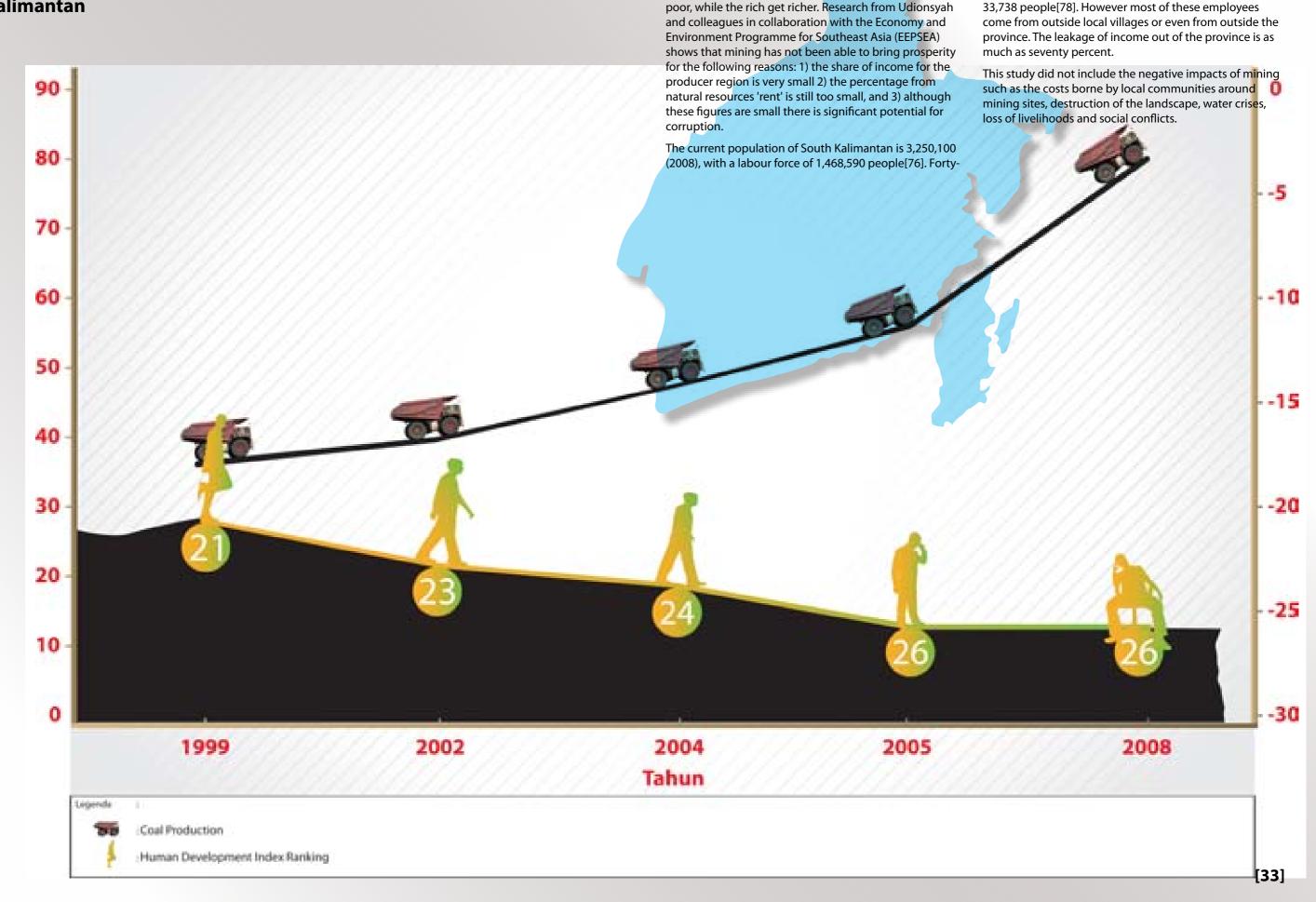
The government is planning to build the Mulut Tambang coal-fired power station, with a capacity of 110 MW<sup>[66]</sup>. But with the current situation of the majority of coal mined heading overseas, will this plan succeed? Moreover, most of the coal mining companies in Kalimantan are from overseas hence they are bound to sell their coal abroad. Up to 2008, the three main coal companies in South Kalimantan were PT. Adaro Indonesia (38.5 million tonnes per year), PT Arutmin Indonesia (16.8 million tonnes per year) and Regional Company Baramarta (3.7 million tonnes).

[28]



### **High Extraction, High Poverty**

**Coal Production vs Human Development Index Ranking, South Kalimantan** 



More Jobs in Agriculture than in Mining

is declining. It was 0.270 in 2004[74] and decreased to

gap between high and low incomes. The poor remain

0.239 in 2006[75]. These figures reflect the widening

The Gini index for South Kalimantan is low and at present

five percent of the work force, 660,000, are employed. The

agricultural sector absorbs almost 51% of the work force,

or around 741,298 people[77]. Mining, which dominates

the economy only employs 2% of this work force, about





#### **ENVIROCOAL**

- Gaseous emissions and particulate airborne emissions are lower than any other solid fuel.
- The amount of captured ash wastes are very small on an absolute basis and very low compared to other coals.
- The chemical composition of airborne and captured ash wastes renders them benign and suitable for recycling.
- Low SO2 emissions mean lower NOx emissions and less waste

#### **DEADLY COAL**

- River pollution for surrounding the villages of Padang Panjang, Dahai and Maburai. Residents are no longer able to use the river water for daily needs.
- One of PT Adaro's pits is one kilometre in diameter with a depth of 30-40 metres (PT Adaro has two pits). A pit in Maburai village, Murung Pudak, is now a lake.
- Land disputes with local residents affect 300 hectares. The process to set compensation, and the amount of it, have been unfair and people have lost out as a result. Not to mention conflicts which arise within the communities due to conflicting claims over land caused by the chaotic land acquisition process.
- Two villages, Lamida Atas Village and Juai Village, were displaced by the expansion of the mine in 2003. Violence against residents and environmental activists has increased as the company continues to operate. Meanwhile it seems the security forces don't want to take any responsibility for this.



Tanta Village, Warukin, Tabalong District

Tamiang District and Ku'u Island are always affected by flooding.

Coal dust damages agriculture crops in Bajut Warukin Village in Tanta District. Dust, in addition to causing respiratory problems, is also polluting the atmosphere.

Many rubber plantations have been taken over for new mining roads or mines. Conflicts have occurred between residents who do not want to sell their rubber plantations with those who do.

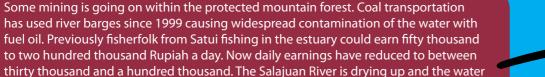


The Mangkaok River is no longer able to be used since the iron concentration is too high as a result of coal mining upstream. As well as this there's the prolonged social conflict caused by land disputes between residents and PT Tanjung Alam Jaya.



PT Bahari Cakrawala Sebuku (BCS) has been allowed by the government to mine within the forest nature reserve on Sebuku Island. Since operations began in 1994, there have been water crises in the villages of Kanibungan and Sekapung and local people's rubber production has declined. Three branches of the river, Matangkarang, Kanibungan and Daeng Setuju have changed course. Even the local cemetery and the speedboat service jetty were removed in 2003 in order to extract the coal underneath.

The Kanibungan and Sarakaman Rivers have been contaminated with coal washing waste. Fishery yields especially young milkfish and shrimp fry have declined due to pollution reaching the sea. Spilt coal and oil during loading and shipping has also reduced fishing volumes. The milkfish and shrimp fry have been declining because of damage to mangroves along the Sebuku Strait. Previously people could earn two hundred thousand Rupiah a day with 3 to 4 hours of fishing. Now it takes one to two days to earn the same amount.



is turning black. It's no longer able to be used by residents for their daily needs. It has become common to see people at the Sumpol road intersection suffering from coughs, shortness of breath and eye diseases.

80

Desa Sebamban and Satui, Tanah Bumbu District Sebuku Village, Kotabaru District







**■** Part Four

## We Need Intergenerational Justice Now!

The chaotic management of Indonesia's land and natural resources since the early 1970s is a time bomb for the next generations. When it explodes, it will leave wastelands, craters, dry rivers, seas full of rubbish and toxic materials, barren forests and polluted air. The pollution is causing an increase in upper respiratory tract infections and brings threats to brain development in children under five.

In the future, if the government is not serious about ensuring human safety and human productivity so that people are able to live sustainably from natural resources, Indonesia will become a country characterised by civil war, disease and unspeakable poverty, as often seen in African countries which have lost their natural resources. Indonesia will become a weak diseased body dependent on the IV drip of International Aid.

Isolated incidences of all of the concerns mentioned

above have already occurred in Indonesia. Indonesia is a country which is run by rich people under the illusion that the only way to keep power is to pump up the macro-economic performance figures by showcasing new skyscrapers, a complex road network and increased consumption of industrial goods and services. This is a dream built on assumptions from the example of developed countries in Europe and North America. It does not take into account fundamental differences in cultural and social backgrounds or even the geomorphology of Indonesia. This dream is based simply on imitation and transplantation of a development model which has already been abandoned by its original users because of its potential to create a time bomb for future generation

JATAM invites all of Indonesian society and the world community to demand that state officials and politicians work sincerely and consistently to:

- Suspend all licenses and licensing processes for any future investments and developments which have a dirty social and ecological footprint such as coal and mineral mining, oil palm agglomerations\*, clearing of peat land, large-scale fisheries, oil exploitation and logging concessions in the remaining natural forests.
- 2. Upholding a vision of development that guarantees:
  - People's ability to achieve and maintain their own security
  - People's ability to achieve and maintain productivity in order to enjoy the best quality of life they can within the local social and ecological capacity; and
  - People's ability to preserve, protect and restore the sustainability of ecological.

3. Reviewing and formulating a new development paradigm that meets the criteria for the long-term effort needed to achieve intergenerational justice.

agglomerations\* = an alliance of businesses that forms a power complex which is larger than a conglomerate

[36]

# Footnotes

- Presidential Decree No 82, 1995, 26 December 1995, on Peat Land Development For Food Crop Agriculture in Central Kalimantan.
- Presidential Instruction No 2, 2007, 16 March 2007, on the Acceleration of **Rehabilitation** and Revitalization of **Peat** Land Development in Central Kalimantan.
- Delft Hydraulic report Q3943: PEAT-CO2, Assessment of CO2 emissions from drained peatlands in SE Asia. Hooijer, A., Silvius, M., Wosten, H. and Page, S., 2006.
- WRI: Climate Analysis Indicators Tool version 4.0, 2007.
- Presentation Paper, Bernaulus Saragih Forest Faculty of Mulawarman University: Changing Land Cover from Green Space to Black Surface, September 2009.
- GTZ: Forest Fires Technical Assistance, 2002.
- 7. Tribun Kaltim, April 2009, http://www.tribunkaltim.co.id/ read/artikel/26058, accessed December 2009.
- JATAM East Kalimantan: Research Results 2001.
- East Kalimantan Provincial Mining Service, March 2009.
- 10. Presentation by East Kalimantan Governor to Energy and Mineral Resources Minister: on Priorities for Development of Mining for Energy and Minerals, January 2009.
- 11. Survey of poverty figures based on National Economic Survey (SUSENAS).
- 12. Tribun Kaltim, April 2008.
- 13. JATAM East Kalimantan, analysis of various sources, March
- 14. East Kalimantan Provincial Government, Long Term Regional Development Plan (2005-2025, June 2005).
- 15. East Kalimantan Provincial Government, Long Term Regional Development Plan (2005-2025, June 2005).
- 16. East Kalimantan Provincial Government, Long Term Regional 43. Kaltim Post: "PLTU Milik Barie Power di Sengata Beroperasi Development Plan (2005-2025, June 2005).
- 17. Kaltim Post, August 2009.
- 18. South Kalimantan Provincial Forestry Service 2000.
- 19. South Kalimantan Provincial Plantations Service 2008.
- 20. South Kalimantan Provincial Plantations Service 2006.
- 21. South Kalimantan Provincial Plantations Service 2006.
- 22. South Kalimantan Regional Planning Board, 2008.
- 23. South Kalimantan Regional Planning Board, 2008.
- 24. Central Statistics Agency: Kaltim Dalam Angka 2007 [East Kalimantan in Figures 2007], March 2008.
- 25. JATAM East Kalimantan: Hasil Analisis Kompilasi Jadwal Pemadaman Listrik Wilayah Kaltim dan Samarinda bulan Juli-November 2008 dari PLN Kaltim [Results of Analysis of Compilation of Eletricity Blackout Schedules in the East Kalimantan and Samarinda areas, from July to November 2008 from State Electricity Company (PLN) in East Kalimantan], Sep 2009.
- 26. Presentation by East Kalimantan Governor to Energy and Mineral Resources Minister: on Priorities for Development of Mining for Energy and Minerals, January 2009.
- 27. Presentation by East Kalimantan Governor to Energy and Mineral Resources Minister: on Priorities for Development of Mining for Energy and Minerals, January 2009.

- 28. JATAM: analysis from various sources, October 2009.
- 29. PT Bumi Resources Tbk: Annual Report 2008.
- 30. Presentation by East Kalimantan Governor to Energi and Mineral Resources Minister: on Priorities for Development of Mining Energy and Minerals, January 2009.
- 32. Ibid.
- 33. Presentation by East Kalimantan Governor to Energy and Mineral Resources Minister: on Priorities for Development of Mining for Energy and Minerals, January 2009.
- 34. http://www.dpmb.esdm.go.id and compilation by JATAM Fast Kalimantan, 2009.
- 35. Central Statistics Agency East Kutai: Kutai Timor Dalam Angka, 2008 [East Kutai in Figures, 2008].
- 36. Kaltim Post: "PLTU Milik Barie Power di Sengata Beroperasi 2013" ["Coal-fired Power Station owned by Bakrie Operating in Sengata"], 15 July 2009.
- 37. PT Kaltim Prima Coal: Ringkasan Eksekutif Studi AMDAL Peningkatan Batubara hingga 48 Juta Ton Pertahun [Executive Summary, EIA, to Increase Coal to 48 Million Tonnes per Year].
- 38. PT Kaltim Prima Coal: Kerangka Acuan AMDAL (KA-ANDAL), Studi AMDAL Kapasitas Produksi Hingga 70 Juta Ton Per Tahun [Terms of Reference Environmental Impact Analysis, EIA Study, Production Capacity up to 70 Million Tonnes per Year], 2009.
- 39. Ibid.
- 40. Ibid.
- 41. Ibid.
- 42. Ibid.
- 2013" ["Coal-fired Power Station owned by Bakrie Operating in Sengata", 15 July 2009.
- 44. http://korupsi.vivanews.com/news/read/90882-mahkamah\_ agung\_tolak\_pk\_syaukani\_hasan\_rais
- 45. East Kalimantan Mining and Energy Service, 2008.
- 46. East Kalimantan Mining and Energy Service, 2008.
- 47. JATAM: Analysis from various sources, October 2009.
- 48. JATAM: Analysis from various sources, October 2009.
- 49. JATAM East Kalimantan, analysis of various sources, September - October 2009.
- 50. JATAM: Analysis from various sources, October 2009.
- 51. West Kutai Health Service, June 2009.
- 52. Samarinda Irrigation Service, Presentation in Seminar on Flooding in Samarinda, April 2009.
- 53. Samarinda Irrigation Service, Presentation in Seminar on Flooding in Samarinda, April 2009.
- 54. JATAM East Kalimantan, analysis of various sources, March
- 55. Samarinda Pos, June 2009.
- 56. Paser District Environmental Impact Management Agency
- 57. JATAM: Analysis from various sources, October 2009.

- 58. Comparison of data from East Kalimantan Mining and Energy Service, on number and extent of mining permits (KP), 2007, and data from the same source on the number and extent of mining permits in 2009.
- 59. WALHI East Kalimantan: Keanekaragaman Hayati Gunung Ketam Paser Diambang Kehancuran, [The Biodiversity of Mt Ketam, Paser, is on the verge of destruction]. Muhammad Ramli, First Edition, page 6, October 2005.
- 60. Ibid.
- State Electricity Company (PLN) South and Central Kalimantan Regions, 2008.
- 62. State Electricity Company (PLN) South and Central Kalimantan Regions, 2008.
- WALHI South Kalimantan Investigation into the Use of State Roads for Coal Trucks, 2005.
- 64. WALHI South Kalimantan: Analysis of the use of diesel, December 2005.
- WALHI South Kalimantan: Analysis of the use of diesel, December 2005.
- 66. State Electricity Company (PLN) South and East Kalimantan Regions, 2008.
- 67. YCHI and Indigenous People: Data from Meratus Expedition

- 68. See MacKinnon et al. 1998.
- 69. Kompas: Hutan Lindung Meratus Harus Diselamatkan dari Penambang Liar [Meratus Protection Forest Must be Saved from Illegal Miners], 29 March 2004.
- 70. South Kalimantan Regional Planning Board/Central Statistics Agency: Figures, 1998.
- 71. South Kalimantan Provincial Environmental Impact Management Agency, 2008.
- 72. South Kalimantan Provincial Environmental Impact Management Agency, 2008.
- 73. South Kalimantan Provincial Environmental Impact Management Agency, 2008.
- 74. Central Statistics Agency, 2007.
- 75. Central Statistics Agency, 2007.
- 76. Study by Udiansyah et al with Economy and Environment Program for Southeast Asia (EEPSEA), 2007.
- 77. Study by Udiansyah et al with Economy and Environment Program for Southeast Asia (EEPSEA), 2007.
- 78. Study by Udiansyah et al with Economy and Environment Program for Southeast Asia (EEPSEA), 2007.

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#### **Back cover**

• Fahmi Rahman, Tribun Kaltim

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#### • Picture 2: JATAM East Kalimantan

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• Picture 3-5 istimewa

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- Picture 6 istimewa
- Picture 7-8: JATAM East Kalimantan

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• Picture 9-10: JATAM East Kalimantan

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• Picture 11: istimewa

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• Picture 12-14: WALHI South Kalimantan

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Picture 15: istimewa

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• Picture 16: Fahmi Rahman/Tribun Kaltim

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• Picture 17: JATAM East Kalimantan

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• Picture 18: istimewa

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