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# **Baseline study on child labour in the informal gold mining sector in the province of East Kalimantan, Indonesia**

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In this translation, words, sentences, phrases in square brackets are added for explanatory purposes by translator.

## **I. INTRODUCTION**

### **1. Background**

The Government of Indonesia has ratified ILO Convention no. 138 concerning Minimum Age for Admission to Employment with regulation No. 20/1999 and Convention no. 182 concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor through [the issuance of] Act No.1/ 2000. Moreover, the Government of Indonesia has also developed the National Action Plan (RAN) for the Elimination of the Worst Forms of Child Labor, which was created with a Presidential Decision (no. 159 dated August 13, 2002). This National Action Plan is an action program for the elimination of the worst forms of child labor and has determined that 13 worst forms of child labor must be eliminated, one of which is found in the mining sector. To support the Government of Indonesia, the ILO-IPEC early this year has started a support project through a time-bound program specifically designed to assist with the implementation of the National Action Plan.

Access to the core [root cause] of the child labor problem and [the] reliable data [that are available on this] are, for the time being, not representative enough to be used as a reference to understand the situation and the need of child laborers in accordance with that which is targeted. In light of this, the ILO-IPEC has prepared a series of rapid assessments in five target sectors in the year 2003. Data on the results of the rapid assessments give a partial but very important description on child labor in target sectors and the conditions under which they work and other things related to child labor issues in the informal gold mining sector.

### **2. Research's objective**

This baseline study is aimed at collecting more specific data (for completing the available data) on the number of child laborers working within or outside of gold mining units in the Pasir District and the West Kutai District (Kelian Village) in East Kalimantan Province, which have been identified as priority units under the National Action Plan, and aimed at providing information on the whereabouts of the child laborers in an effort to help achieve the intervention target, that is, to withdraw and prevent children from being engaged in such work.

## **II. RESEARCH METHODS**

### **1. Site dan Period of Research**

Research was conducted in two Districts : (1) The Pasir District and (2) The West Kutai District. Both are situated in the Province of East Kalimantan. The Pasir District covers the Batu Sopang Sub-district and the Muara Komam

Sub-district. There are five Villages under these Sub-districts.<sup>1</sup> The five Villages are the Legai (Batu Kajang) Village, the Mandaru (Busui) Village, the Songka Village, the Batu Butok Village and the Muara Payang Village. As far as the West Kutai District is concerned, the site of research was the Kelian Dalam [Inner Kelian] Village, which is situated within the Tering Sub-district. The entire duration of the research, including the preparatory stage, field study stage and analysis stage of the research, was six weeks, starting from the date on which a collaboration contract was signed until the date on which the [final] report [on research results] was submitted.

## **2. Research objects**

The main objects of the research were children younger than 18 years of age who actively work at informal gold mining units and children who work outside out of gold mining units as casual workers (called *ambuh* or *ngerebo* in the local language), and several families who live in villages around the units. These children and the several families in villages around the units were the respondents of this research.

## **3. Data gathering**

Primary data are gathered using questionnaires. The questionnaires are divided into two categories. The first is intended to be filled in by the owners of the mining units. They are supposed to tell the number of workers (including the number of child laborers) employed within their units, types of work performed by these children and their duration of work [the amount of hours worked by them] in a day. Despite the fact that questionnaires of the first category were addressed to the owners of the mining units, direct interviews with the child laborers they employ were also carried out. In this way, questionnaire data on the child laborers came from the child laborers themselves, not from the owners of the gold mining units. Questionnaires of the second category are intended to be filled in by families living around the mining units or families in villages that serve as the research sites. The second-category questionnaire is used to elicit data on the number of children in the family who are younger than 18 years old and the activities of these children.

Secondary data are collected from children who work outside of the mining units who are commonly locally referred to as the *ambuh* / *ngerebo* children. Data collection was carried out by recording their names, addresses and numbers.

## **4. Problems in Data Gathering**

Interviews and data gathering were performed by visiting the site of the gold mining units in designated villages accompanied by locals who sufficiently understand the nuts and bolts [the workings of] and the whereabouts of the mining units upon the recommendation of the respective heads of the villages.

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<sup>1</sup> The Indonesian sentence is ambiguous. It can also mean that there are five villages under the Muara Komam Sub-district.

The whereabouts or the sites of the gold mining units in the five research villages in the Pasir District are quite scattered [located quite far from each other] and there is a sufficiently long distance to go from one mining unit to another or from one group of mining units to another group. As a result, the team of researchers had to spend more time to reach all the units. It was observed that many workers have built makeshift camps around the mining units. But some workers who work in units that they can [easily] reach using vehicles (public land transport or boats) or workers whose houses are located within a one-hour walking distance from the mining units will normally go home after they complete their work in the afternoon. Their houses are generally located in the nearest villages or on the edge of an axial district road.

On the other hand, mining units in the Kelian Dalam Village are generally situated near villagers' housing complexes so that access to the mining sites is relatively easy even though in some places researchers had to walk across a shallow river to get there.

In the beginning it was not easy to collect data from unit owners let alone interviewing them. They felt suspicious of and uncomfortable at the presence of [the researchers]. They felt that the researchers whom they regarded as unwanted outsiders were a nuisance and their uneasiness heightened particularly when they saw these researchers taking notes. The research team, however, finally managed to approach them that interviews took place smoothly. Interviews with child laborers found at work at the mining sites were carried out very carefully by the researchers after they finished interviewing unit owners or their representatives. It was obvious that the child laborers did not want to be interviewed. These children were very reluctant to answer light [easy-to-answer] questions asked by the researchers even though unit owners [who employ them] had given the researchers the go-ahead to interview them. The researchers got the impression that the children wanted to finish the question-and-answer session as quickly as possible and went back to work. This situation was understandable. To overcome this problem, the team of researchers tried to break the ice by not directly asking them prepared questions taken from the questionnaire but by firstly greeting them and asking them easy-to-answer introductory questions about themselves.

Workers' activities at mining units in the Pasir district and the West Kutai district do not fully take place during the week. There is an unwritten general regulation to regard Friday as a holiday that there are no mining activities on Fridays. Friday is used by some miners to pray and to sell gold they have mined a week before. So on Fridays, the team of researches only interviewed mining families living around the village. The same also applies to workers in gold mining units in Kelian Dalam Village in West Kutai District.

Work at mining units is acknowledged by the surrounding communities as highly hazardous work that is not infrequently led to deaths. When the team of researchers were in the Batu Butok Village at the Muara Komam Sub-district, it rained all day long, causing the wall of a dug-out hole at one of the units to collapse and causing three workers being buried alive by the land slide.

This accident caused workers' activities at other mining units in Batu Butok village and in the surround villages to cease for several days. The impacts of the accident on the research is that interviews and interactions with a number of units that stop their operation temporarily could not be carried out optimally. The team of researchers were unable to wait until the units were operational again because there were no certainty as to when they will resume their operation.

## **5. Data Processing**

Data from child laborers who serve as respondents, obtained from questionnaires sent to actively working child laborers within or outside of the units at each village are then recorded and coded and tabulated using the Excel software program for analysis in a descriptive accidental manner. Descriptive accidental refers to a method of sample analysis in which analysis is carried out on samples that are taken directly from the objects being examined or researched.

## **III. RESEARCH RESULT**

### **1. The Batu Soppang Sub-district and the Muara Komam Sub-district**

#### **a. PETI (Unlicensed Gold Mining/ Gold Mining Without License)**

Administratively, the Batu Soppang sub-district and the Muara Komam sub-district belong to the Pasir District. The Pasir District consists of 11 sub-districts and 101 villages covering a total area of 11,603.94 squarekilometers. Generally speaking, the Pasir district has sufficient transport infrastructures, particularly for transportation on land across sub-districts where the axial road that connects East Kalimantan Province to South Kalimantan Province runs through. However, access to villages is still difficult except for villages situated along the edges or outlines of district roads. Communications infrastructures and facilities, too, are still rudimentary.

The majority of the inhabitants of the Pasir district earn a living from, among others, the trading sector, agricultural sector, service sector and mining sector.

The Batu Soppang sub-district covers an area of 1,996.63 squarekilometers. The sub-district has 14 villages. Two of these villages – the Muara Kajang village (Legai) and the Busui village (Mandaru) – are believed to be situated within plots of land with gold content underneath. The Muara Komam sub-district, which is situated directly adjacent to the Batu Soppang sub-district, covers an area of 1,753.40 squarekilometers and consists of 11 villages. Of these, villages whose inhabitants are considered to be actively engaged in mining work are the Batu Butok village, the Uko village and the Muara Payang village. Education infrastructures [schools] in the Muara Komam sub-district are concentrated in the Batu Butok village, which has two elementary schools (one of them is a non-religious elementary school and the

other is an Islamic elementary school commonly referred to as a *Madrasah Ibtidaiyah*), two junior high schools (one of them is a non-religious junior high school and the other is an Islamic junior high school commonly referred to as a *Madrasah Tsanawiyah*) and two senior high schools (one of them is a non-religious senior high school and the other is an Islamic senior high school commonly referred to as a *Madrasah Aliyah*).

Illegal gold mining in the Pasir district, referred to [by the authorities] as PETI, an Indonesian acronym that stands for unlicensed gold mining operation or Gold Mining Without License, has been ongoing since around the year 1970. In the beginning, gold was mined manually without machine using simple tools such as shovels and crowbars to dig out a hole, a tin and a bucket to remove water from the hole, and a simple pan to separate gold from waste by washing.

According to information from the Mining and Energy Office of the Province of East Kalimantan, brisk mining activities by people rushing for gold [in those areas] are activities that « do not meet safety mining requirements, destroy the environment, do not heed the principle of conserving quarry materials, create social unrest and disturb security. »

People started to get acquainted with and operate [use] mechanical equipment in mining units in the Pasir district in 1991. That was the time at which environmental damage started to emerge as a result of large-scale exploitation of land that was believed to contain gold. At that time, there was no policy to regulate mining licenses and operational procedures for illegal gold mining operation. There was, however, an unwritten local policy that prohibited gold mining operations near or close to the edge of the road, particularly along the main district roads because such operations are feared to destroy the body of the road.

Results of field interviews show that almost all workers and unit owners found in the Pasir district, particularly in the Batu Soppang sub-district and the Muara Komam sub-district are migrants from South Kalimantan. They started to come in droves to the Pasir district since the gold rush of 1970. But among them are also those latecomers who just moved to the Pasir district in early 1990s. [Instead of mining the gold themselves,] local or indigenous inhabitants usually just provide the migrants with land or sites to be mined under a production sharing arrangement.

The Pasir District consists of two sub-districts: the Batu Soppang sub-district and the Muara Komam sub-district. Ten mining sites are found spread over five villages in these two sub-districts. A nine-day survey/ research conducted on unlicensed gold mining units operating in the ten mining sites in the Pasir District yields the following results:

**Table 1.** Mining Sites and Number of Illegal Mining Units Operating in the Batu Soppang Sub-district and the Muara Komam Sub-district of the Pasir District

No	In the Batu Sopang Sub-district, mining sites are found in	Number of unlicensed mining units found operating in the mining sites
1.	Legai/ Batu Kajang village	8
2.	Mandaru/ Busui village	6
3.	Uko/ Songka village	16
	- Mriga	4
	- Sembuting	1
<b>Total</b>		<b>35</b>
No	In the Muara Komam Sub-district, mining sites are found in	Number of unlicensed mining units found operating in the mining sites
1.	Batu Butok village:	
	-Bayur	8
	-Sran	10
	-Swatu	3
	-Lusen	5
	-Boster	4
2.	Muara Payang village	1
<b>Total</b>		<b>31</b>

During the survey, data were collected from three villages in the Batu Soppang sub-district. The three villages are the Legai/ Batu Kajang village, the Mandaru/ Busui village and the Uko/ Songka village where 35 unlicensed gold mining units are found. Data were also collected from two villages in the Muara Komam sub-district. The two villages are the Muara Payang village and the Batu Butok village where 31 gold mining units are found in several [mining] sites including in Bayur, Sran, Swatu, Lusen, and Boster. Altogether, there are 66 [31+ 35] unlicensed gold mining units operating in the two sub-districts from which data have been collected. The 66 units are still actively mining gold using the dry-suction system. There are units that operate individually and there are units that operate in a group. There are about six to 10 workers in each mining unit.

However, the number of unlicensed gold mining units operating in the Pasir district found in the survey, which stands at 66, differs markedly from the one recorded in the year 2003 by the Mining Office of the Pasir District, which stood at 120 units. There are several factors responsible for this difference in number. Firstly, the survey did not identify all the villages with potential gold deposits in the Pasir district and thus, the data collected during the survey are not entire. Secondly, the amount of potential gold deposits in the region is declining [and unlicensed units that used to operate in certain sites in the region a few years ago or even a year ago have by now stopped operating or relocated to another region as operating in the region was no longer profitable]. Thirdly, the activities of mining units in the region are very fluctuative [they operate on



and off] depending on seasons and results obtained. Another factor responsible for the difference in number is the issuance of the [Letter of] Decision of the Head of [the Pasir] District No. 25 of the year 2002 and the [Letter of] Decision of the Head of [the Pasir] District No 3 of the year 2003.

It cannot be denied that the landslide accident that has previously been mentioned is also responsible for the stoppage of activities of several unlicensed gold mining units. According to the Mining Office of the Pasir District, there are 10 gold mining units that are still active [operational] in the Muara Payang village. A visit to the village, however, shows that there is only one mining unit that remains in operation. It operates using the dive-suction system. An interview with [the owner] of this remaining unit reveals that the other units have ended their operation not only because of the issuance of the [Letters of] Decision of the Head of the Pasir District but also because of continual decline in the amount of gold being obtained that their high operational costs could no longer be covered. It is not known, however, whether these defunct units close their operation temporarily or whether they will relocate their operation to another site.

The Letters of Decision of the Head of the Pasir District have been issued as a response to the uncontrollable gold mining activities that have taken place for the last 30 years in the Pasir district and to growing concerns about environmental damage caused by such operations. The Letter of Decision of the Head of the Pasir District No. 25 of the year 2002 provides Guidelines for Regulating People's Mining of Quarry Material for Obtaining Gold in the Pasir District, which requires those who want to operate a community mining business in the Pasir district to possess a License to Operate a People's Mining Business in the District (*Ijin Usaha Pertambangan Rakyat Daerah* or IUPRD for short). This Letter of Decision was then complemented by another Letter of Decision, the Letter of Decision of the Head of the Pasir District No 3 of the year 2003, which Sets Aside Permitted Zones/ Areas for People to Mine Quarry Materials to Obtain Gold within the Pasir District. It contains regulations on mining sites and mining operations.

Since the issuance of the two letters of decision, community-mining units started to be very cautious in carrying out their activities. Raids by district officials are often made to crack down on mining units operating in the wrong sites or in sites other than the ones delineated under the Decision No 3/ 2003, during which machines are confiscated and unit owners are arrested. Despite the issuance of the decision letters, however, almost all gold mining units surveyed by the team of researchers turn out to have no mining license because they find that the process to obtain the license is extremely difficult as they are obliged to report the results of their business minimal every three months to the district government and this requires a lot of transport costs and accommodation costs.

#### **b. Child laborers**

The number of child laborers found in the mining units operating in the Pasir District varies from unit to unit. However, the team of researchers found that there are more units employing no child laborers at all than units that make

use of child laborers. In the case of units that employ no child laborer, researchers did not make any interview, just digging out information from the surrounding communities living in several villages that, at the time of survey, happened to be harvesting cloves. Children who at that time were still in their school holiday chose to help their parents plucking cloves during the harvest season rather than working in units or scavenging for gold (*ngambuh*) from the waste dumped by gold miners/ prospectors.

The number of children actively working inside mining units or outside mining units in 10 sites being researched is presented in this table below:

**Table 2.** Mining sites and number of children working inside and outside gold mining units

No	Sites	Mining system used	Number of children working			
			Inside units		Outside units	
			M	F	M	F
A	The Batu Soppang Sub-district					
	Legai/Batu Kajang village	Dry suction	3	-	-	
	Mandaru / Busui village	Dry suction	2	-	1	1
	Uko / Songka village		1	-	2	1
	- Mriga	Dry suction	-	-	-	-
	- Sembuting	Dry suction	1	-	-	-
	<b>Total</b>		<b>7</b>	<b>-</b>	<b>3</b>	<b>2</b>
B	The Muara Komam Sub-district					
	Batu Butok village		-	-	7	-
	- Bayur	Dry suction	1	1	-	
	- Sran	Dry suction	1	-	6	-
	- Swatu	Dry suction	1	-	-	-
	- Lusen	Dry suction	3	-	5	-
	- Boster	Dry suction	3	-	22	7
	Muara Payang village	Dive suction	-	-	-	-
	<b>Total</b>		<b>9</b>	<b>1</b>	<b>40</b>	<b>7</b>
	<b>Total A+B</b>		<b>16</b>	<b>1</b>	<b>43</b>	<b>9</b>

The above table shows that there are 17 children working in illegal mining units. Seven of them are found in the Batu Soppang Sub-district and ten in the Muara Komam Sub-district. On the other hand, there are 52 children working outside mining units. Children who work outside mining units in the Pasir District are generally referred to as *ngambuh* children, meaning that these children are scavenging for gold from waste dumped by gold miners/ prospectors. The age of children working in or outside units varies, ranging from 10 to 17 years old. Their level of education ranges from elementary school to non-religious senior high school as well as Islamic senior high school (*Madrasah Aliyah*). Complete data on these working children can be seen in Annex 3.

The pattern of work of these *ngambuh* children is different from the pattern of work of children who work in mining units. Unlike children who work in mining units, these *ngambuh* children apparently have no fixed working hours. They may freely move from one location to another. And most of them work only in order to earn [extra] pocket money, and only a few of them say that they work in order to earn money to finance their schooling [to pay school tuition fees and buy stationery/ books]. Differences in the pattern of work between these two types of working children are presented in the following table:

**Table 3.** Differences in the Pattern of Work between Children who work in Mining Units and Children who work outside Mining Units (*ngambuh*)

Children Working inside Units	Children Working outside Units
- Bound by the unit's working hours	- Free/ not bound by the unit's working hours
- The unit is responsible for them	- The unit is not responsible for them
- Have to perform work during the unit's operation/ when the unit is in operation	- Perform work after the unit finishes operation
- To help their parents earn a living	- To earn money for themselves to be used by themselves

It is very likely that these *ngambuh* children are involved in mining activities in a mining unit, given their proximity to the mining site and activities that take place in mining units. From observation results and interviews, it is known that most of children who work in mining units are required to perform light work, that is, throwing away stones whose size is relatively small. Children are able to perform such work for four to six working hours a day. The team of researchers found no chemicals such as mercury being used in the Pasir District because panned gold that is still mixed with sand and other impurities is brought home where the separation process takes place. So far researchers have not directly seen any process of separating sand from gold but there is information that they do not use mercury to separate gold from sand.

There is no district regulation that regulates the use of child laborers in mining units. However, several unit owners agree that children should not be employed in mining units. They believe that mining work is not for children. Thus, the majority of local communities do not ask or advise their children to work in mines or to scavenge for gold (*ngambuh*) unless they are forced to do so [for financial reasons]. They are also aware of the danger of landslide in mining units. Despite what they say, children are, as a matter of fact, still found working in gold mining units.

### c. The Gender Aspect

As far as gender aspect is concerned, of 66 mining units surveyed, only 14 units employ adult female workers and there are 10 of them, and only one

female child (girl) is found in a mining unit in Bayur. In general, people think or assume that jobs in mining units are for men. Hence, not many women are employed in mining units. Female workers or female children (girls) found in mining units are mostly close relatives or children of unit owners and their working hours are very flexible or they only perform domestic work. The gender aspect as far as activities in mining units are concerned is presented in the following table:

**Table 4.** Number of Workers in Mining Units According to Sex in the Batu Soppang and Muara Komam Sub-districts

No	Site	Mining system used	Number of Workers	
			Male	Female
A.	The Batu Soppang Sub-district			
1.	Legai / Batu Kajang village	Dry suction	14	1
2.	Mandaru / Busui village	Dry suction	9	-
3.	Uko / Songka village	Dry suction	13	1
Total			36	2
B.	The Muara Komam Sub-district			
4.	Batu Butok village	Dry suction	66	11
5.	Muara Payang village	Dive suction	3	-
Total			69	11
Total A+B			125	13

#### d. Family

Of 22 families or households being surveyed, the majority has heads of households who are gold miners. There are also heads of households who are engaged in other types of work such as farmers. There are also those who run a stall and other businesses.

**Tabel 5.** Types of Work of Household Heads Surveyed in the Batu Soppang and Muara Komam Sub-districts

No	Type of Work	Number	Percentage
1	Mining Worker / <i>Ngambuh</i>	11	50
2	Running a Stall	4	18,2
3	Farmer	2	9,1
4	Others (driver of motorcycle taxis, massaseuse)	5	22,7
<b>Total</b>		<b>22</b>	<b>100</b>

Of 46 children of the families being surveyed, 10 are found to be engaged in mining activities (*ngambuh*), while the rest merely assist their parents with light work at home. The level of education of children in two sub-districts used as samples varies from elementary school to senior high school or Islamic senior

high school (*Madrasah Aliyah*). Of the 46 children surveyed, 7 are known to have dropped out of school. Five of them are elementary school dropouts while the other two are junior high school or Islamic junior high school dropouts. All of them are boys. The rest are still attending school.

## **2. The Kelian Dalam Village of the Tering Sub-district**

The Kutai District is an area bordering the Bulungan District in the north, Kutai Kertanegara in the east, the Pasir District in the south, and the Provinces of West Kalimantan and Central Kalimantan in the west.

The West Kutai District with its capital Sendawar covers an area of 31,628.70 squarekilometers, which comprise 12.9% of the total area of the Province of East Kalimantan. It has 15 sub-districts and 211 villages. The West Kutai District is located 359 kilometers from the capital of the Province of East Kalimantan (Samarinda). According to the 2003 census, West Kutai has a population of 142,136 people with a population density of 4.49 persons/ squarekilometers. Of 15 sub-districts in West Kutai, the Tering District, which is a new district that splits itself from Long Iram, has a sufficiently high population density and one of the villages in this sub-district that has a sufficiently high population growth is the Kelian Dalam village.

At present, the Kelian Dalam village administratively belongs to the Tering District after a split-up last April. Unlike the [money-making] activities in other villages, the activities in this village are for the most part the activities of its original inhabitants and migrants who work in traditional gold mining operations along the Babi River and other tributaries.

Known health hazards associated with the severely intense activities at sites where gold is mined are incidences of skin diseases, influenza, colds and fever. Most frequently, workers are subjected to such illnesses when they dive during the rainy season that they need medical examination and medicinal treatment.

Meanwhile, village health infrastructures and structures in the Kelian Dalam village are not sufficient. One of the main problems faced by people in this village is very poor health service facilities and lack of health workers. So, inhabitants of this village, when ill, need longer time to get a medical treatment and have to spend more time to go to another village, such as to Linggang Bigung, in order to get a medical treatment.

Facilities for education, too, are very poor. The village has only one elementary school. It has no junior high school. So, children who have completed their elementary school education have to go to another village or region in order to pursue higher education. But this is very unlikely because their parents have no money to send them to another village or region to continue their schooling.

So far there are more or less 70 community gold mining units that are still actively operational. Of these, 62 have been surveyed. The remaining eight was not being in operation when survey was conducted. Sites considered to have [good] potential gold deposits and desirable to be mined have now moved to the downstream

part of the rivers such as [along or in] the Bilit River, the Kulur River, the Kubur River, the Benuang River, Liu Linu, the Patak River, Tegabalan, Gah Janggut and Tekong Batu after gold mining units have operated for a sufficiently long period of time in the upstream part of the Babi River.

**Table 6.** Sites and Number of Illegal Gold Mining Units in the Kelian Dalam Village of the West Kutai District

No	Site	Mining system used	Number of Units
1.	Kelian dalam Rt 1	Rujak suction	7
2.	Bilit River	Dry suction	14
3.	Kulur / Kubur Rivers	Rujak/ dive suction	15
4.	Siting River	Dry suction	1
5.	Benuang River	Rujak suction	2
6.	Liu Linu	Rujak suction	5
7.	Patak River	Rujak suction	4
8.	Tegabalan	Rujak suction	11
9.	Gah Janggut	Rujak suction	2
10.	Tekong Batu	Dry suction	1
<b>Total</b>			<b>62</b>

The above table shows that the majority of mining units are found at Kulur River, Bilit River and Tegabalan, where 15, 14 and 11 units are found respectively. The least number of mining units is found at Siting River and Tekong Batu where there is only one mining unit respectively.

In general, most units operate using the rujak suction mining technique. Only a few employ the dive suction technique and the dry suction technique. Child laborers are normally found in mining units that operate using the rujak suction technique. No child laborer was found in units that use the dry suction technique.

The highly intense mining activities of illegal gold miners pose not only health hazards but also create a serious environmental impact responsible for environmental damage in West Kutai, particularly in Kelian Dalam village. Despite this problem, however, the Government of West Kutai District has not issued any regulations to regulate the operation and the provision of operating license for illegal mining units, unlike the Government of the Pasir District. To alleviate negative impacts on the health of populations who are directly affected by mining activities, the Environmental Office of West Kutai has initiated extension activities designed to extend or increase awareness of mining workers in five sub-districts including in the Tering Sub-district of health hazards associated with their mining activities. It is expected that after being exposed to the extension program, mining workers are alerted to the poisonous properties of mercury and are more careful in using it [to separate gold from iron ore].

During survey, researchers did not see any accidents happening in the mining sites. They just got information that some time before they came, an accident

happened in a mining unit because the earth [that forms the wall of a mining hole] collapsed after being sprayed with water and buried alive several workers who were working in the hole. There is no concrete information on the number of casualties of this accident. As for the use of mercury, in mining sites mercury is generally used in the final phase of the mining process, that is, during the process of separating gold from sand.

#### a. Child laborers

A mining unit employs an average of only two to four children because the rujak suction mining method is considered a sufficiently heavy job that can only be fully carried out by adults. Children fully employed to work in the mining unit are normally given the job of *melangkar* (putting rubble such as stones and scraps of wood from the bottom of the river into a plaited basket, which is lifted up to the raft to be disposed elsewhere). Diving is predominantly performed by adults or children aged 15 years old or older who have been trained to dive to the depth of between 8 to 15 meters at the bottom of the river where gold is found in abundance.

In addition to 29 children working full time at mining units, there are 23 other children who are seen carrying out additional work. The number of children working at the mining units has increased. Only 10 child laborers were found in the rapid assessment carried out in the year 2003. On the other hand, there is no increase in the number of individual children working outside mining units. Child laborers outside mining units work in groups, individually or together with their parents performing *ngerebo* (panning for gold from the sand that has been panned earlier by another using the dry suction, dive suction or rujak suction methods). They are spread across each site, as follows:

**Table 7.** Sites and Number of Child Laborers found in and outside gold mining units in the Kelian Dalam village of the Tering Sub-district

No	Site	Mining system used	Number of Child laborers			
			Dalam Unit		Outside Units	
			M	F	M	F
	Kelian Dalam:	Rujak suction	12	-	-	-
	1. RT 1				8	2
	2. RT 2				6	-
	3. RT 3				3	1
	4. Long Kalian				1	2
	Bilit River	Dry suction	1	-	-	-
	Kulur / Kubur River	Dive suction	4	-	-	-
	Sungai Benuang	Rujak suction	2	-	-	-
	Liu Linu	Rujak suction	1	-	-	-
	Sungai Patak	Rujak suction	5	-	-	-
	Tegabalan	Rujak suction	3	-	-	-
	Gah Janggut	Rujak suction	1	-	-	-
	Tekong Batu	Rujak suction	-	-	-	-
	<b>Total</b>		<b>29</b>	<b>-</b>	<b>18</b>	<b>5</b>

*Ngerebo* or panning for gold from the sand that has been panned earlier by another or from sand that has been through the *mbangkit* process (washing of gold-containing doormats) is performed around operating mining units and has become a routine for almost all inhabitants of the Kelian Dalam village, be they adults or children. The results of *ngerebo* are the property of the prospector [the gold obtained by a worker from this kind of work belongs to the worker]. Children normally carry out or are engaged in this kind of work after school hours or during holidays as additional work to help their parents make ends meet or for extra pocket money to be spent on food/ snacks/ sweets/ iced drinks.

The *ngerebo* habit or routine makes it easy for children to earn money. Children adopt this habit from a very young age, since they are 5 or 6 years old (or since they are in the first grade of elementary school). Among those who take up this kind of work include even children who do not go to school. As a result, their motivation to go to school is very low. Results of interviews with some parents whose children have dropped out of school indicate that their children dropped out of elementary school for very simple reasons. A case in point that took place in RT I (neighborhood association number one) involved an elementary school child in the sixth grade who got into an argument with the teacher and then decided to attend school no longer even though the teacher has asked the child to go back to school.

There are 29 children who are engaged as full-time workers in mining units. They are spread in 17 units and between 10 to 17 years of age. Their level of education varies, as presented in the following table:

**Table 8.** Level of education of child laborer respondents in mining units in the Kelian Dalam village in Tering sub-district in West Kutai

No	Education	Number	Percentage
	Elementary school	2	7.0
	Have not finished elementary school	25	86
	Have completed elementary school	1	3.5
	Have not completed junior high school	1	3.5
<b>Total</b>		29	100

The above table shows that 25 children (86%) have dropped out of elementary school when they were in grades from the second grade up to the sixth grade. There is one child who has completed his or her elementary school education (3.5%), one child who has dropped out of junior high school (3.5%) and two children who are still actively attending elementary school in the sixth grade (7%).

In general, mothers and children in the Kelian Dalam village opt for *ngerebo* because of ample time available to them during intervals of shifting farming practices in which harvest takes place once a year. While waiting for the next planting season, they have nothing to do and see *ngerebo* as an activity worth performing together with their children.



**b. Family**

Data concerning types of work of 10 family respondents are presented in the following table:

**Table 9.** Types of Work of Family Respondents in the Kelian Dalam Village in the Tering Sub-district of the West Kutai District

No	Type of Work	Number	Percentage
	Mining workers / <i>ngambuh</i> (scavenging for gold from waste left by others)	2	20%
	Farmers/ performing farming work	4	40%
	Elementary school teachers	1	10%
	Others	1	10%
<b>Total</b>		10	100

**c. Gender aspect**

As far as gender aspect is concerned, domestic work is predominantly carried out by female adults and children. As in the Pasir District, women are involved in the mining units after they have finished their domestic work [they have done their chores]. As far as types of work are concerned, survey results find no female adults engaged in diving activities.

Of 62 units surveyed, there are 362 adult workers, 357 of whom are men and only five are women, all of whom are female adults. The number of workers found in each unit is presented in the following table:

**Table 10.** Sites and Number of Workers in Illegal Gold Mining Units according to Sex in the Kelian Dalam village in the West Kutai district

No	Site	Number of Workers	
		Male	Female
1.	Kelian dalam Rt 1	43	-
2.	Bilit River	95	-
3.	Kulur/ Siting River	8	2
4.	Kubur River	67	-
5.	Benuaq River	9	1
6.	Liu Linu	40	-
7.	Patak River	3	-
8.	Tegabalan	69	-
9.	Gah Janggut	13	-
!0.	Tekong Batu	10	2
<b>Total</b>		<b>357</b>	<b>5</b>

A son in a family is obliged to support the economy of the family even though the only skill that the father passes down to his son(s) is his mining skill, which has become an inter-generational skill. Female adults and teenagers in the Kelian Dalam village generally do not have any certain skill that can be used as an alternative for the family to earn money. Meanwhile, there are very sufficient natural resources available for exploitation but there is limitation in knowledge and advocacy.

## Annex 1

### CHILD LABOUR DATA OF COMMUNITY MINING SECTOR SUB-DISTRICT BATU SOPANG AND MUARA KOMAN PASIR DISTRICT

No. of Unit	Location	Type of Operational	Name of Children	Age	Education
1.	Kajang/ B.Sopang	Sedot Kering	Yunus	<b>15</b>	SD/lulus
2.	Kajang/ B.Sopang	Sedot Kering	Ibus	<b>15</b>	SD/lulus
3.	Kajang/ B.Sopang	Sedot Kering	Arbaini	<b>10</b>	Do/SD/5
4.	Mandaru/ B. Sopang	Sedot Kering	Samsul	<b>15</b>	Do/SD/5
5.	Mandaru/ B. Sopang	Sedot Kering	Dayat	<b>14</b>	Do/SD/5
6.	Songka/B.Sopang	Sedot Kering	Amat	<b>17</b>	SD/lulus
7.	Songka/B.Sopang	Sedot Kering	Fauzi	<b>16</b>	SD/6
8.	Bayur/Bt Butok/ Ma. Komam	Sedot Kering	Heri	<b>15</b>	MTs/2
9.	Bayur/Bt Butok/ Ma. Komam	Sedot Kering	Asanah	<b>10</b>	SD/2
10.	swatu/Bt Butok/ Ma. Komam	Sedot Kering	Amat	<b>15</b>	SD/6
11.	sran/Bt Butok/ Ma. Komam	Sedot Kering	Jali	<b>14</b>	MTs/2
12.	lusen/Bt Butok/ Ma. Komam	Sedot Kering	Joni Indo	<b>17</b>	MTs/3
13.	lusen/Bt Butok/ Ma. Komam	Sedot Kering	Syafriadi	<b>17</b>	MA/2
14.	lusen/Bt Butok/ Ma. Komam	Sedot Kering	Syaifullah	<b>17</b>	MA/2
15.	Boster/Bt Butok/ Ma. Komam	Sedot Kering	Rahmat Hidayat	<b>14</b>	DO/MTs/1
16.	Boster/Bt Butok/ Ma. Komam	Sedot Kering	Muhammad	<b>15</b>	DO/MTs/1
17.	Boster/Bt Butok/ Ma. Komam	Sedot Kering	Syahrani	<b>17</b>	DO/MTs/1
<b>Jumlah</b>		<b>17 anak</b>			

## Annex 2

### CHILD LABOUR DATA OF COMMUNITY MINING SECTOR IN KALIAN VILLAGE OF TERING SUB-DISTRICT WEST KUTAI DISTRICT

No	Lokasi	Jenis	Nama anak	Umur	Pendidikan
1.	RT.I Kelian Dalam	Sedot Rujak	Upik	15	4/SD/DO
2.	RT.I Kelian Dalam	Sedot Rujak	Padli	16	4/SD/DO
3.	RT.I Kelian Dalam	Sedot Rujak	Alpian	17	4/SD/DO
4.	RT.I Kelian Dalam	Sedot Rujak	Aan	17	5/SD/DO
5.	RT.I Kelian Dalam	Sedot Rujak	Mawan	17	6/SD/DO
6.	RT.I Kelian Dalam	Sedot Rujak	Udi	17	6/SD/DO
7.	RT.I Kelian Dalam	Sedot Rujak	Aspiar	14	6/SD/DO
8.	RT.I Kelian Dalam	Sedot Rujak	Roni	16	5/SD/DO
9.	RT.I Kelian Dalam	Sedot Rujak	Rama	13	5/SD/DO
10.	RT.I Kelian Dalam	Sedot Rujak	Ardiansyah	14	6/SD/DO
11.	RT.I Kelian Dalam	Sedot Rujak	Bagus Santoro	14	6/SD/DO
12.	RT.I Kelian Dalam	Sedot Rujak	Edi M. Syafran	12	5/SD/DO
13.	Sungai Bilit	Sedot Rujak	Yani	14	4/SD/DO
14.	Sungai Kulur	Sedot Rujak	Agung	17	6/SD/DO
15.	Sungai Kulur	Sedot Rujak	Bagas	10	4/SD/DO
16.	Sungai Kubur	Sedot Rujak	Herman	14	6/SD/DO
17.	Sungai Kubur	Sedot Rujak	Gatot	16	4/SD/DO
18.	Sungai Benuang	Sedot Rujak	Slawa	15	2/SD/DO
19.	Sungai Benuang	Sedot Rujak	Dimas	12	6/SD/DO
20.	Liu Linu	Sedot Rujak	Hakim	16	6/SD/DO
21.	Sungai Patak	Sedot Rujak	Bahrian	15	6/SD/DO
22.	Sungai Patak	Sedot Rujak	Amat	14	6/SD/DO
23.	Sungai Patak	Sedot Rujak	Mahlan	12	SD Lulus
24.	Sungai Patak	Sedot Rujak	Hengki	12	6/SD/aktif
25.	Sungai Patak	Sedot Rujak	Ecing	12	6/SD/aktif
26.	Tegabalan	Sedot Rujak	Damar	15	5/SD/DO
27.	Tegabalan	Sedot Rujak	Bahtiar	17	5/SD/DO
28.	Tegabalan	Sedot Rujak	Kurniawan	17	1/SMP/DO
29.	Gah Janggut	Sedot Rujak	Jaya	16	6/SD/DO
<b>Jumlah</b>		<b>29 anak</b>			

### Annex 3

#### CHILD LABOUR DATA IN NGAMBUH SUB-DISTRICT OF BATU SOPANG AND MUARA KOMAN PASIR DISTRICT

No	Nama	Umur	Pendidikan	Nama Ortu /Pekerjaan	Alamat
1.	Fadhol	10	Tdk Sekolah	Ican / Nambang	Sran (MK)
2.	Samsul	9	Tdk Sekolah	Ican / Nambang	Sran (MK)
3.	Yan	13	DO/4/SD	Musa / Warung	Sran (MK)
4.	Jumai	14	DO/SD	Musa / Warung	Sran (MK)
5.	Ali	12	DO/SD/4	Bachtiarin / Nambang	Sran (MK)
6.	Sardi	7	Tdk sekolah	Ratman / Nambang	Sran (MK)
7.	Joni Indo	17	MTs /lulus	Amrullah / Jualan	Lusen (MK)
8.	M Rusli	13	MTs/2	Amrullah / Jualan	Lusen (MK)
9.	Marhat	10	SD/5	Burhanudin / Nambang	Lusen (MK)
10.	Sampurna	13	SD/2	Burhanudin / Nambang	Lusen (MK)
11.	Supriyadi	17	MA/2	Sapriyadi / Nambang	Lusen (MK)
12.	Rahmat Hidayat	14	DO/MTs/1	Abi / Nambang	Boster (MK)
13.	Syahrani	17	DO/MTs/1	Misran / Warung	Boster (MK)
14.	Amat Firdaus	8	1/SD	Siti Aisyah / Tk Pijat	Boster (MK)
15.	Hasan	15	5/SD	Siti Aisyah / Tk Pijat	Boster (MK)
16.	Syaifullah	17	MA/3	Arfansyah / Nambang	Boster (MK)
17.	Nurlaila	14	SD/6	Arfansyah / Nambang	Boster (MK)
18.	Rahimah	11	SD/3	Arfansyah / Nambang	Boster (MK)
19.	Mus Mulyadi	13	SD/6	Jahrani /Tani	Boster (MK)
20.	Siti Aminah	12	SD/6	Jahrani /Tani	Boster (MK)
21.	Adi Ridwan	12	SD/6	Jahrani / Tani	Boster (MK)
22.	Rahma	7	Tdk sekolah	Jahrani / Tani	Boster (MK)
23.	Wahyudin	12	SD/lulus	Siti Hajar / Warung	Boster (MK)
24.	Fauzi	16	SD/lulus	Amran / swasta	Songka (BS)
25.	Bahtiar	13	SD/lulus	Amran / swasta	Songka (BS)
26.	Ni'mah	17	SLTP/lulus	Amran / swasta	Songka (BS)
27.	Hotiah	14	SD/6	Bandarsyah / Nambang	Mandaru (BS)
28.	Hailing	15	MTs	Bandarsyah / Nambang	Mandaru (BS)

Cont. annex 3.

No	Nama	Umur	Pendidikan	Nama Ortu / Pekerjaan	Alamat
29.	Wahyu	17	MA/2	Muhdari/Ngambuh	RW03 / Boster. Bt. Butok (MK)
30.	Hindra	13	SD/2	Fauzi/nambang	RW03 / Boster. Bt. Butok (MK)
31.	Juhdi	17	DO/SD	Midhan/Ngambuh	RW03 / Boster. Bt., Butok (MK)
32.	Kurdi	15	DO/SD	Saini / Ngambuh	RW03 / Boter. Bt. Butok (MK)
33.	Taufik	13	SD/3	Normansyah/Nambang	RW03 / Boster. Bt. Butok (MK)
34.	Pahlia	15	DO/Mts	Utuh / Nambang	RW03 / Boster. Bt., Butok (MK)
35.	Kasmawati	14	DO/Mts	Kaspani / dagang	RW03 / Boster. Bt. Butok (MK)
36.	Siti Hadijah	15	DO/SD	Asari /nambang	RW03 / Boster. Bt. Butok (MK)
37.	Rahmad Hidayat	15	DO/MTs	Misran / dagang	RW03 / Boster. Bt., Butok (MK)
38.	Samsudinnur	13	SD/6	Mahyudin / ngambuh	RW 03 / Boster. Bt. Butok (MK)
39.	Agus Riyanto	16	SD/6	Ali	RW04 / Boster. Bt. Butok (MK)
40.	Maisarah	13	DO/SD	Kurniadi	RW04 / Boster. Bt., Butok (MK)
41.	Hapni	11	SD/3	Kardi	RW04 / Boster. Bt. Butok (MK)
42.	Handri Hidayat	12	SD/5	Ilmidiansyah	RW04 / Boster. Bt., Butok (MK)
43.	Sugianto	15	SD/6	Alariansyah	RW04 / Boster. Bt. Butok (MK)
44.	Ahmad Sahidal	13	SD/5	Arjan	RW04 / Boster. Bt., Butok (MK)
45.	Ahmad Ardiman	13	SD/4	Arjan	RW04 / Boster. Bt. Butok (MK)
46.	A. Rahman	12	SD/6	Syamsudin	RT1/Bt. Butok (MK)
47.	Mansur	13	SD/6	Suriansyah	RT1/Bt. Butok (MK)
48.	Sapriadi	12	SD/6	Amran	RT1/Bt. Butok (MK)
49.	Bani	15	MTs/1	A. Rasyid	RT1/Bt. Butok (MK)
50.	Jahran	17	SMA/1	Saifudin	RT1/Bt. Butok (MK)
51.	M. Amin	13	SD/5	Burhan	RT1/Bt. Butok (MK)
52.	Usuf	10	SD/4	Ramsudin	RT1/Bt. Butok (MK)
<b>Jumlah</b>		<b>52 anak</b>			

#### Annex 4

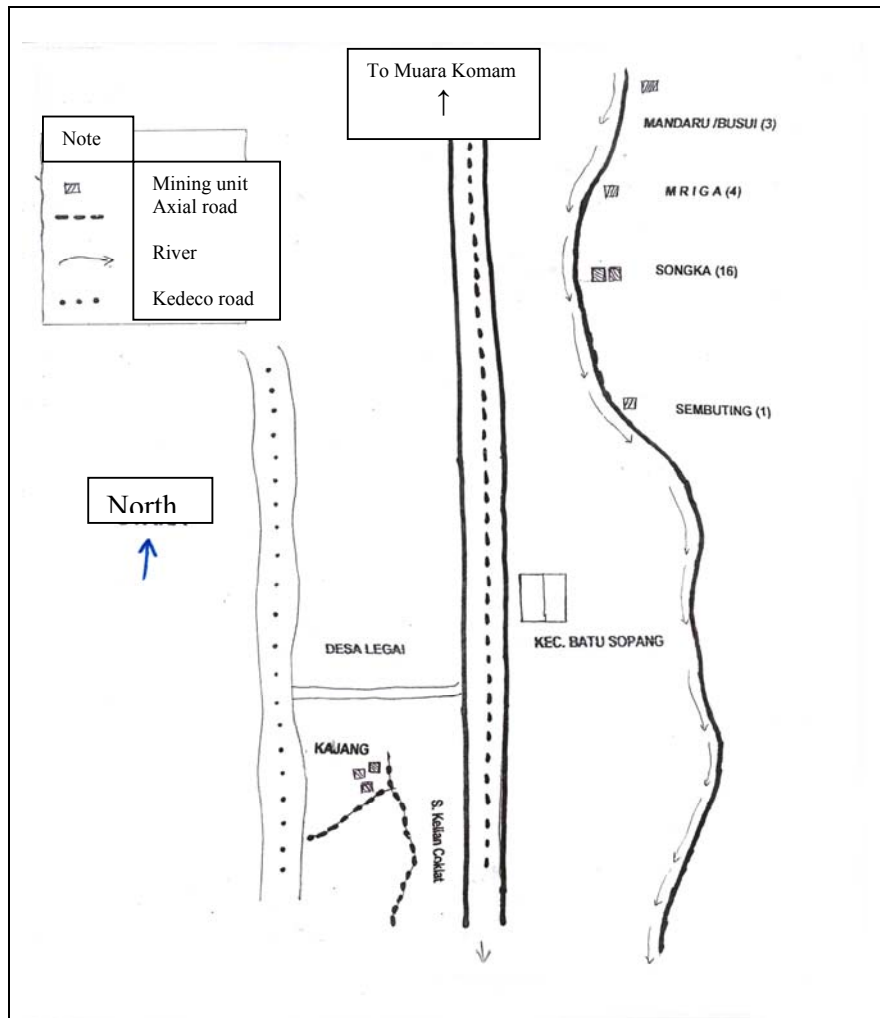
### CHILD DATA OF NGAMBUH/NGEREBO KELIAN VILLAGE IN TERING SUB-DISTRICT WEST KUTAI DISTRICT

No	Nama	Umur	Pendidikan	Nama Ortu / Pekerjaan	Alamat / Pekerjaan
1.	Acing	10	SD/2	Yusuf/Tani	RT 3 Kelian dalam
2.	Syarifudin	15	SD/5	Yusuf/Tani	RT3 Kelian Dalam
3.	Rosi	8	SD/2	Heriyanto/Guru	RT 3 Kelian dalam
4.	Padeli	16	DO/SD/	Netianur/Tani	RT 2 Kelian dalam
5.	Surya	17	DO/SD/6	Asiah / Tani	RT 2 Kelian dalam
6.	Bahrian	15	D)/SD/6	Asiah / Tani	RT 2 Kelian dalam
7.	Amat	14	DO/SD/6	Asiah / Tani	RT 2 Kelian dalam
8.	Mahlan	12	Tdk seklh	Asiah / Tani	RT 2 Kelian dalam
9.	Syafran	9	Tdk seklh	Asiah / Tani	RT 2 Kelian dalam
10.	Cahyo	12	SD/4	Supiati/Nambang	RT 1 Kelian dalam
11.	Bobi	6	Tdk seklh	Supiati/Nambang	RT 1 Kelian dalam
12.	Tika	10	SD/3	Supiati/Nambang	RT 1 Kelian dalam
13.	Jaya	17	DO/SD/6	Asiah / Jualan	RT3 Kelian Dalam
14.	Dewi	7	DO/SD/3	Dali / Nambang	Long Kelian
15.	Nurafni	9	Tdk seklh	Dali / Nambang	Long Kelian
16.	Kurniawan	15	SD/ 6	Dali / Nambang	Long Kelian
17.	Diana	15	DO/SD/3	Supiono/Nambang	RT1 KelianDalam
18.	Dimas	12	DO/SD/6	Supiono/Nambang	RT1 KelianDalam
19.	Erlinawati	8	SD/2	Supiono/Nambang	RT1 KelianDalam
20.	Angga	10	SD/4	Bahran /Tani	RT 1 Kelian dalam
21.	Bayu	8	SD/1	Bahran /Tani	RT1 Kelian dalam
22.	Latif	12	SD/6	Bahran /Tani	RT1 Kelian Dalam
23.	Ramadani	14	SD/5	Mahmudin	RT2 Kelian Dalam
<b>Jumlah</b>		<b>23 anak</b>			

Note: Data was taken from child family respondents under age of 7-17, however, most of children of school age at Kelian Dalam Village are able to do *ngerebo* work

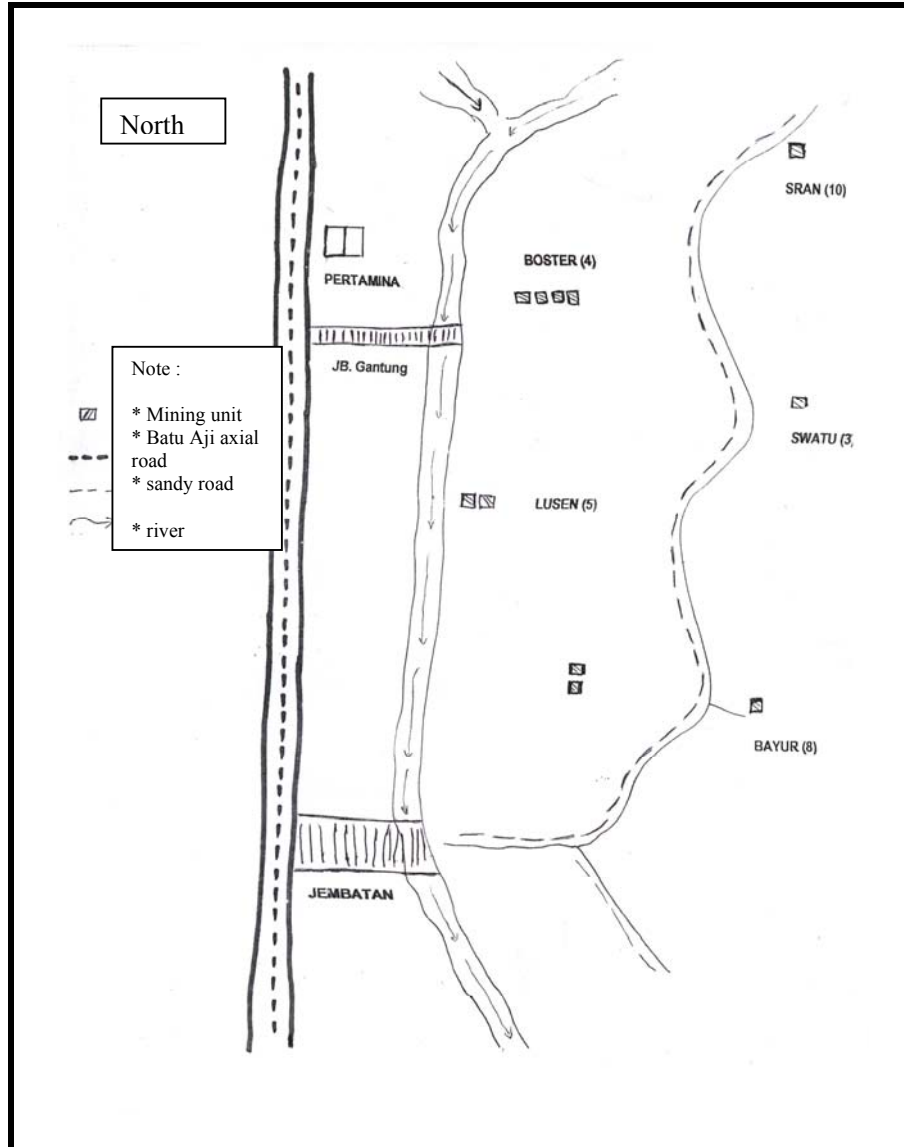
## Annex 5

### Site Map of Unlicensed Gold Mining (PETI) Units in the Batu Sopang Sub-district of the Pasir District





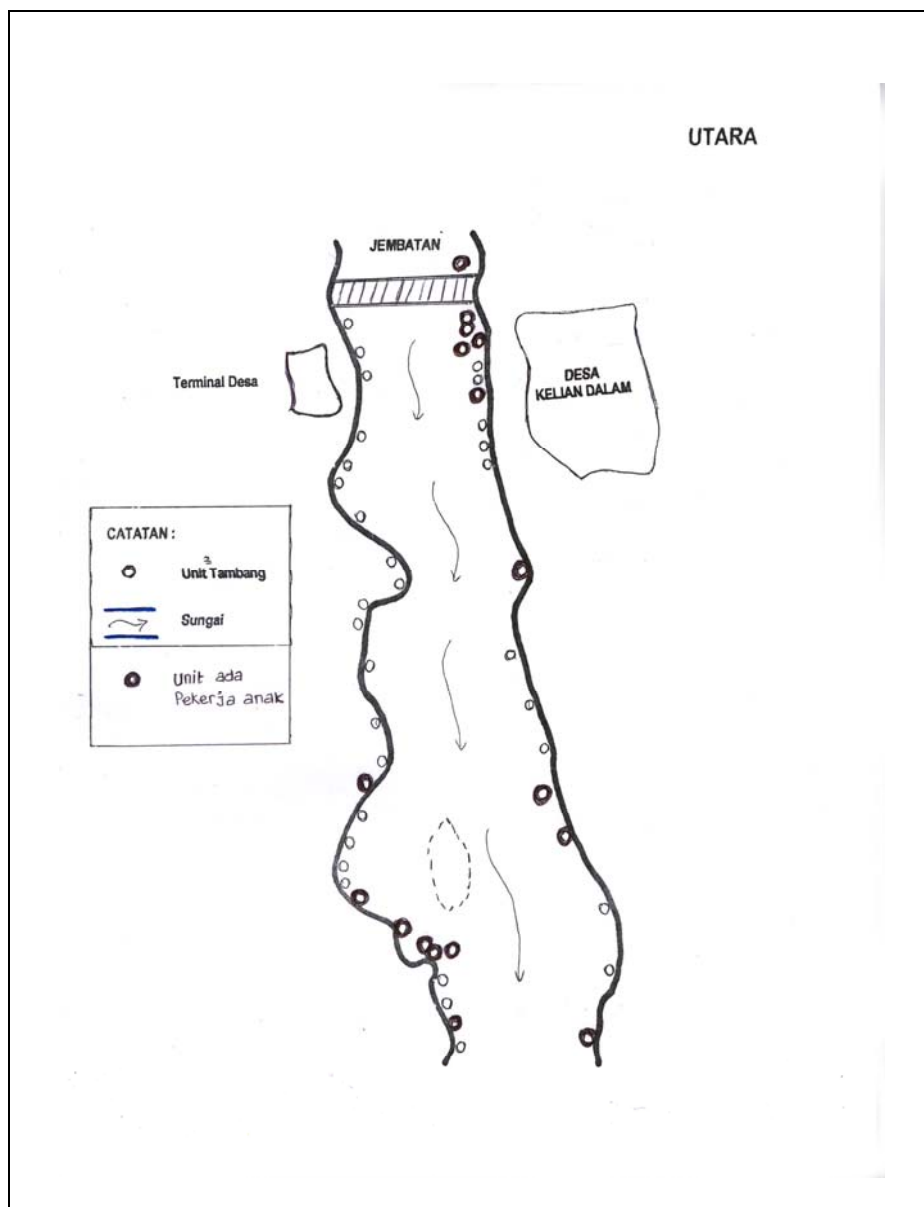
**b. Site Map of Unlicensed-Gold-Mining (PETI) Units in the Muara Komam Sub-district of the Pasir District**



Utara = north; JB. gantung = hanging bridge; catatan = note; unit tambang = mining unit; jalan poros batu aji = the Batu Aji axial road; jalan berpasir = sandy road; sungai = river; jembatan = bridge

## Annex 6

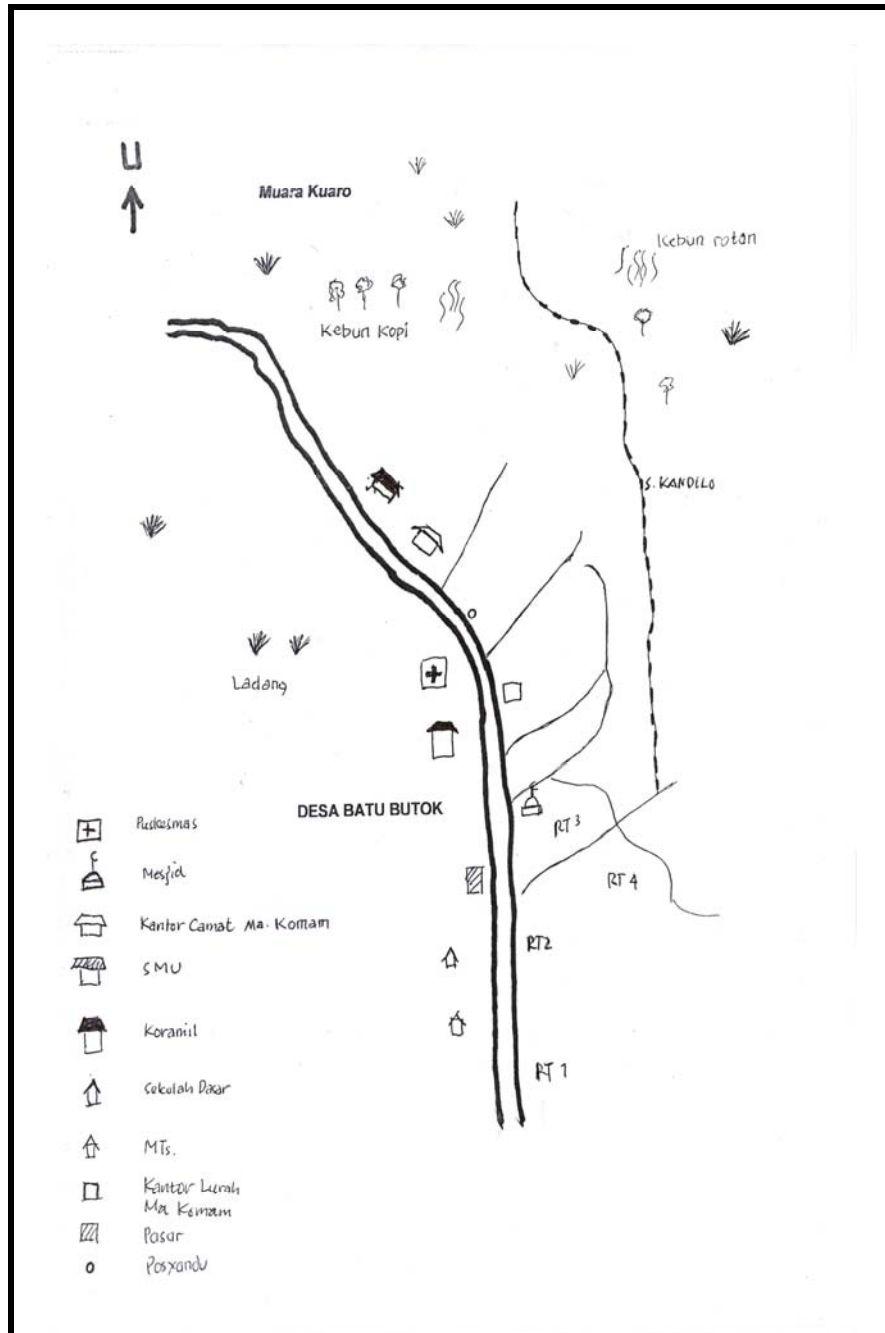
### Site Map of Unlicensed-Gold-Mining (PETI) Units in the Kelian Dalam [Inner Kelian] Village of the West Kutai District



Utara = north; jembatan = bridge; terminal desa = village bus stop or motor-vehicle stop; catatan = note; unit tambang = mining unit; sungai = river; unit ada pekerja anak = units where child laborers are found;

Annex 7

**Map of Batu Butok Village Muara Komam Subdistrict  
Pasar District**



## Annex 8

### Map of Desa Kelian Dalam Village Tering Subdistrict Kutai Barat District

