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Sectoral survey of child labour in informal tin mining in Kepulauan Bangka Belitung Province, Indonesia 2014

International Programme on the Elimination of Child Labour (IPEC)

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Factsheets

	Estimated total	Standard error	95% confidence interval	Relative standard error (%)
Total Employment in Informal Tin Mining				
Children aged 5-17	6,282	892	4,509 - 8,054	14.2
Adults aged 18+	120,776	9,477	101,952 - 139,600	7.8
Total aged 5+	127,058	10,018	107,157 - 146,958	7.9
Proportion of Employment in Informal Tin Mining to Total Employment (%)				
Children aged 5-17	41.4	5.3	31.0 - 51.9	12.7
Adults aged 18+	21.0	1.3	18.4 - 23.5	6.2
Total aged 5+	21.5	1.3	18.9 - 24.1	6.1
Distribution of Child Labour (CL) in Informal Tin Mining by Sex (%)				
Boy	93.3	2.3	87.1 - 96.7	2.4
Girl	6.7	2.3	3.3-12.9	34.2
Total	100.0			
Distribution of Child Labour (CL) in Informal Tin Mining by Age Group (%)				
5-11	9.2	4.1	3.6 - 21.4	44.8
12-14	22.1	3.7	15.5 - 30.4	16.7
15-17	68.7	4.3	59.6 - 76.6	6.2
Total	100.0			
School Participation Rate by Subpopulation of Children aged 5-17 (%)				
All children	76.2	1.97	72.3-80.1	2.6
Employed children	26.8	5.50	15.9-37.7	20.4
CL in informal tin mining	23.2	6.08	11.1-35.3	26.2

Chapter 1 – Introduction

The survey as reported here is primarily aimed at providing an in-depth understanding through an evidence-based approach of the child labour phenomenon in tin mining in Kepulauan Bangka-Belitung of Indonesia in 2014. The Survey has been implemented under the framework of the ILO Global Action Programme on Child Labour Issues Project. This report is dedicated to describe why and how the survey is implemented as well as what are the main results of this inquiry. This chapter discusses briefly the background, objectives and organization of the survey, and also the outline of the report.

1.1 Survey background

In terms of tin producer and supplier Indonesia has been recognized as the world's second largest after China: in 2006 Indonesia produced 114,500 tons mine production (Global: 321,000 tons; China: 117,500 tons) and 129,400 tons of smelter production (Global: 340,000 tons; China: 80,933)[1]. In this regard, the province Bangka-Belitung Islands or Kepulauan Bangka-Belitung (hereafter Babel, for simplicity) with Pangkal Pinang as its capital city is of special interest as it has been for long a major origin of tin production of the country. Recent statistics shows that during January-September 2013 Indonesia exported about 70,323 tons of tin (unwrought tin, not alloyed) with values about US$ 1,538 million. Out of the totals, Babel province shared about 88% of the total production and 88.4% of the total export. This is mainly for the reason, Babel province is selected as the target area of the survey.

Babel province is located within the Southeast Asia Tin Belt which is a north-south elongate zone 2,800 km long and 400 km wide, extending from Burma (Myanmar) and Thailand to Peninsular Malaysia and the Indonesian Tin Islands: "Altogether 9.6 million tons of tin, equivalent to 54% of the world's tin production, is derived from this region"[2]. It was formerly part of South Sumatra and became a separate province in 2000. Lying off Sumatera island, the province, comprises 470 small islands (but only 50 islands are inhabited) with two main islands; namely, Bangka and Belitung[3]. The Bangka Strait separates Sumatra and Bangka, and the Gaspar Strait separates Bangka and Belitung. The South China Sea is to the north, the Java Sea is to the south, and the province is separated from Kalimantan (or Borneo) in the east by the Karimata Strait (See Figure 1.1).

Tin mining in Babel province is found in Bangka and Belitung islands. The first island --covers districts of Bangka, Bangka Barat, Bangka Tengah, and Bangka Selatan, and the Municipality of Pangkal Pinang-- is of the special interest as it shares almost all of the production and employment of tin mining in Babel province. The second island --covers districts of Belitung and Belitung Timur-- is the second greatest producer of tin after Bangka Island. The target population of the survey covers all districts in Babel Province.

[1] http://www.theguardian.com/environemat/2014/may/30/tin-mining-bangka-island-microsoft-indonesia.
[2] http://www.sciencedirect.com/science/article/pii/001282529500004T.
[3] http://id.wikipedia.org/wiki/Kepulauan_Bangka_Belitung.

Figure 1.1: Map of Babel Province

Babel province is selected as the target area of the survey at least for three reasons: (a) as previously mentioned, production of tin mining in Indonesia is concentrated almost exclusively in the province, (b) it is quite common for children in the province to involve in tin mining operated by individual households[4], and (c) Babel is the only province in Indonesia that permit (unofficially of course) the operation of "informal" mining operated by individual households. One or all these factor are in general unobservable for other mining subsectors. As an illustration, gold mining is mostly operated by large company, regarded as "strategic" by the government and hence is very well protected. It is very unlikely that child labour will be found in a large gold mining[5].

As has been revealed by several studies, tin mining has many stylized features: tin is extracted not only in open pit mines, but is also done offshore; again, tin mining industry is split into the formal and informal sectors, but the boundary between the two sectors is blurred. For one thing, there is no clear criteria by which mining activity may be classified as legal or illegal; and for another, the largest tin producer PT Timah and other independent smelters buy tin directly or indirectly through middlemen from the black market.

[4] During a field visit in Bangka district (26 August 2014) the consultants encountered three children (aged 11, 12 and 16 years of old) were working in an operating tin mining, operated by a household. Brief conversation with the owner of the mining, also with some adults workers in the mining, strongly indicates that most –if not all— children who engaged in tin mining working in mining operated by households (TI in their terms). In addition, a short conversation with each of the children revealed that they are still in schooling (in primary school for the first two children and in senior high school for the rest) and working there as self-employed to earn money for their own, without any "intervention" of their parents. Like their parents, the children work not as employees, but as "self-employed" in the sense that their remuneration is based on the amount of tin they can produced, not on timely basis (month, week or day).

[5] Small scale of gold mining operated "illegally" by households has been reportedly could be found in some remote villages of East Kalimantan. However, early investigation by the consultants suggests that quantitative study of child labour in the area is either inefficient (largely because a very high cost of transportation) and/or less likely feasible for a field operation of collecting data (because of, among other things, highly protective).

Tracing the origin of the tin marketed to the formal or informal sector is virtually impossible. PT Timah accuses independent smelters of buying tin from illegal miners: according to the company data, despite holding more than 90 per cent of tin mining concessions in Indonesia, PT Timah only produced around 28,000 tons of tin in 2012, while private companies produced 70,000 tons -- a discrepancy the company justifies with the alleged rampant use of illegally mined tin from the independent smelters. In reality, according to reports, a plurality of regulations has been implemented in the industry, and many producers have bought tin sand from informal producers, mainly operated by individual households.

Even though there is no statistical evidence, it is observed that tin production is shared partly by "informal" mining (i.e., operated by households) where child labour could be involved. Children are also known engaging (illegally) in formal or legal enterprise of tin mining by collecting "residual" products produced during "cleaning" processes for their own. In informal mining, children are known engaging in both preparatory work and actual activities of tin mining.

Given that most types of work activities in tin mining would involve health and safety hazards for children, the survey is designed to compile robust information on how extensive the informal tin mining sectors are in terms of engagement of child workers by numbers; as also how intensive is such work in terms of the type of activities that the child workers may be observed to be at. Information on the appended working conditions for such child workers in respect of the exposure to health and safety hazards that may be expected at the work place, how they entered for work into the establishment, and the contractual terms (including whether or not an element of coercion prevails) is also of the concern of the survey.

1.2 Survey objectives

Against this background, the survey, as mentioned before, is aimed at developing an in-depth understanding through an evidence-based approach, of the child labour phenomenon in this economic activity. Specifically, this study sets forth to assess the following dimensions of this phenomenon:

1) The magnitude and nature of child labour (activities and tasks performed by children) with respect to informal tin mining in Babel province;

2) Understanding the different hazards associated with child related activities and tasks in informal tin mining;

3) The extent of participation in schooling by children belonging to households where informal tin mining is the main source of livelihood; and

4) Gauging the attitude and perceptions of children and their parents on education and child labour in their communities.

It is worth noting that in this report international statistical standards is adopted especially with regards to definitions on the main labour force statistics, namely, economically active population, employment, unemployment, hours of work, wages, occupational injuries, and strikes and lockouts. Definitions and concepts in child labour and related statistics used in

the survey follow the contents of the resolution concerning statistics of child labour adopted at the 18th ICLS[6].

The long-term objective of the survey is to contribute to the gradual and effective elimination overall of child labour in Indonesia. The immediate objective is to provide quantitative, reliable and updated data on child labour and its characteristics of informal tin mining in a well-defined geographical area of the country where this economic activity is entrenched.

The survey is challenging as child labour is strictly considered as illegal by law. An appropriate approach has accordingly been evolved to ensure the feasibility of the field data collection and interview operations for the study. The preliminary field assessment has been availed to develop a survey strategy that is practicable and appropriate to the survey objectives.

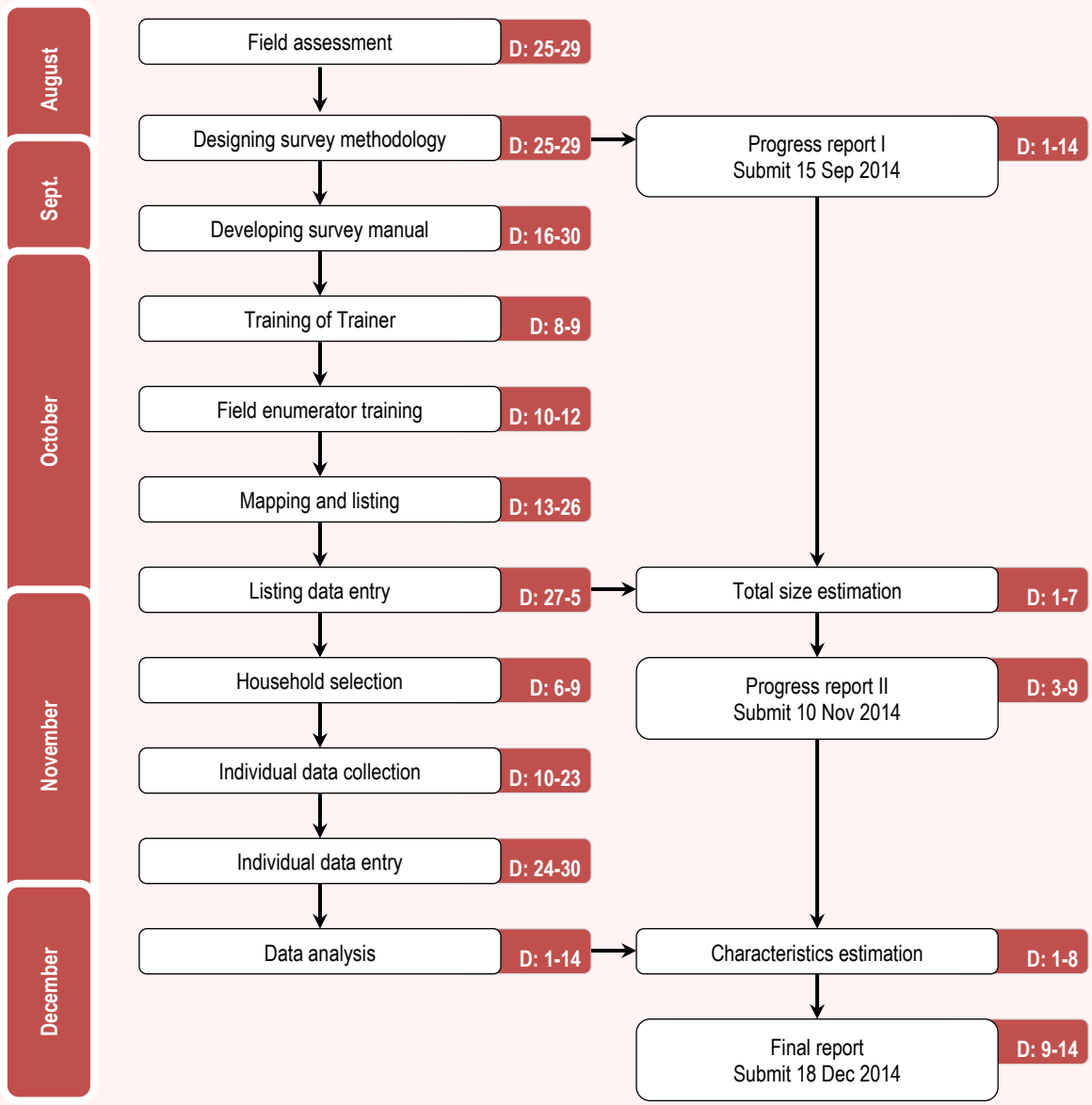
1.3 Survey steps and schedule

Preliminary discussion on the survey has been initiated since the end of 2013. It then followed by developing the term of reference (TOR) which is in line with the interest of IPEC-ILO and with objective situation found in the survey area (i.e., Babel province) with respect to field organization, field workers, and feasibility to implementing the survey. The last point is a crucial as child labour is generally perceived as a sensitive issue by government and by society at large. For this reason, a filed assessment (on the feasibility) is regarded as a required initial step of the survey.

Once the feasibility of the survey has been assessed properly, other survey steps can be implemented: designing a survey methodology of as a preliminary activity of the implementation of the survey methodology, developing survey instruments and manuals, training for field workers, mapping and listing, interviewing sampled households, and others. In overall, the implementation of the survey from field assessment to the submission of the final report will be taken place during the periods August-December 2014. Figure 1.2 lists of the major activities of the survey, including their planned schedules.

[6] *Report of the Conference* (18th ICLS), pages 56-66. The text of the resolution is available online at http://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/---stat/documents/meetingdocument/wcms_101467.pdf.

Figure 1.2: Major survey steps and planned schedules



1.4 Report outline

In order to contextualize the survey, next chapter, Chapter 2, presents a brief description on social, economic, and demographic characteristic of Babel province mainly based on relevant statistics available in Statistical Office or BPS[7] of Babel province. The following chapter, Chapter 3, focuses on methodological aspects of the surveys. It describes survey instruments used in the survey as well as survey stages: mapping of all villages to identify their locations to mining sites, listing of households in selected villages, sample selections of household for further interview, interviewing sample households to identify household as well as individual characteristics of child workers.

The resulted estimates of child labour revealed from household listing are presented in Chapter 4. The following chapter, Chapter 5, described socioeconomic and demographic

[7] BPS stands for *Badan Pusat Statistik* or Central Bureau of Statitics.

characteristics of child labour resulted from sampled-household interviews. The last chapter, Chapter 6, presents summary conclusions, lessons learned and ways of foreword that could be worth noting by the ILO or its major counterparts.

Chapter 2 – Demographic, social and economic characteristics of Babel Province

This chapter describes briefly demographic and socio-economic profiles of Babel province which has been selected as the target area of the survey for reasons that have been illustrated in the previous chapter. Data used for the description are mainly based on official statistics available at BPS of the province. The major data sources are the 2010 population census, the national social and economic survey (Susenas) and the national labour force survey (Sakernas) for various years, and other data sources published by BPS Babel province.

2.1 Population

In term of population at national level, Babel is a small province. The latest population census shows that the total population of the province in 2010 was about 1.2 million (Indonesia: 237.6 million), with 108 males per 100 female population[8]. The projected population in 2014 is about 1.3 million, very closes to the total population of Trinidad and Tobago or Bahrain[9]. In terms of age-structure, Babel population can be categorized as "young" as the proportion of young population (aged below 15) in 2010 was more than 34%, while those of aged population (aged 65+) was less than 4% (See Table 2.1).

Almost 80% of Babel populations are usual residence of Bangka Island. They are distributed in five districts within the island: Bangka (22.7%), Bangka Tengah (13.2%), Bangka Barat (14.3%), Bangka Selatan (14.1%) and Pangkal Pinang (14.3%). As described later in Chapter 3, sampled households of the survey are selected from households in the first two districts just mentioned, and also from Belitung Timur of Belitung Island.

2.2 Education

Babel population has been in general less educated as only less than 30% of adult population of the province attained Senior Higher School or higher level. In contrast, the proportion of those attained Primary School of lower level was more than 50% (See Figure 2.1).

Two major ways to improve educational level are to increase school participation rate (SPR) and to decrease schooling dropout rates among school-age population. Of SPR , the census data shows that in 2010 for the province it was almost universal for primary-school age population (7-12). For aged 13-15 (Junior High School age population) and aged 16-18 (Senior High School age population) SPRs were less than 80% and less than 50% respectively (See Figure 2.2).

[8] Sex Ratio over 100 may reflect the excess of in-migration over out-migration. Tin mining may have been playing an important role as a pull factor for internal migration into Babel province.
[9] http://www.worldometers.info/world-population/population-by-country/.

Table 2.1: Population of Babel Province

Total Population:	Total (000)	Sex Ratio (*)
2000	899.0	104
2010	1,223.3	108
2014 (Projection)	1,343.9	108
Age composition 2010:	**Total (000)**	**%**
0-4	127.8	10.5
5-17	293.3	24.0
18-24	160.8	13.1
25-44	408.3	33.4
45-64	188.4	15.4
65+	44.6	3.6
Total	1,223.3	100.0
Population 2014 by District:	**Total (000)**	**%**
Bangka	304.5	22.7
Belitung	171.3	12.7
Bangka Barat	192.4	14.3
Bangka Tengah	177.2	13.2
Bangka Selatan	189.5	14.1
Belitung Timur	117.0	8.7
Pangkal Pinang	192.0	14.3
Total	**1,344.0**	**100.0**

Source: BPS Babel Province. (*) No. of males per 100 females.

Figure 2.1: Educational Attainment of Adult Population of Aged 15 or older, 2010

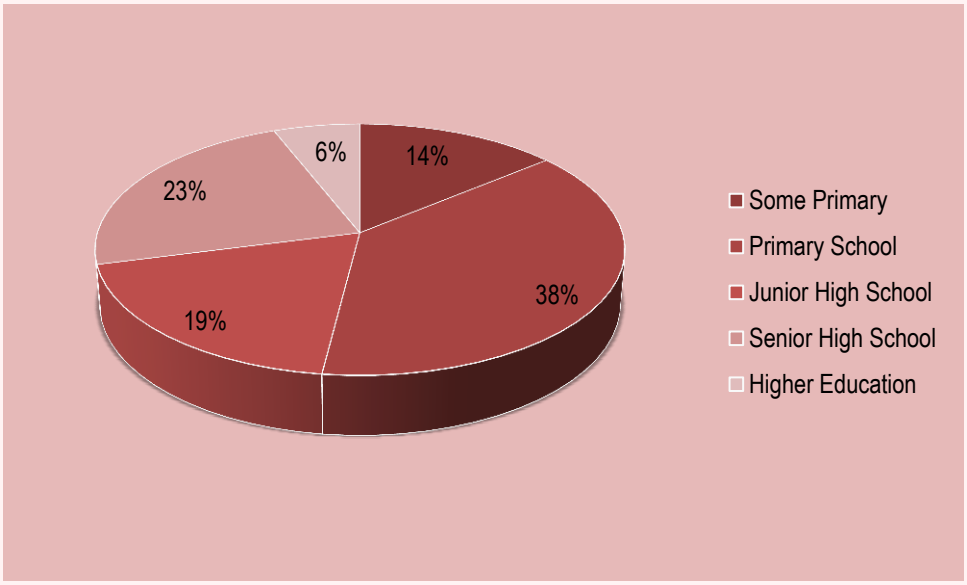
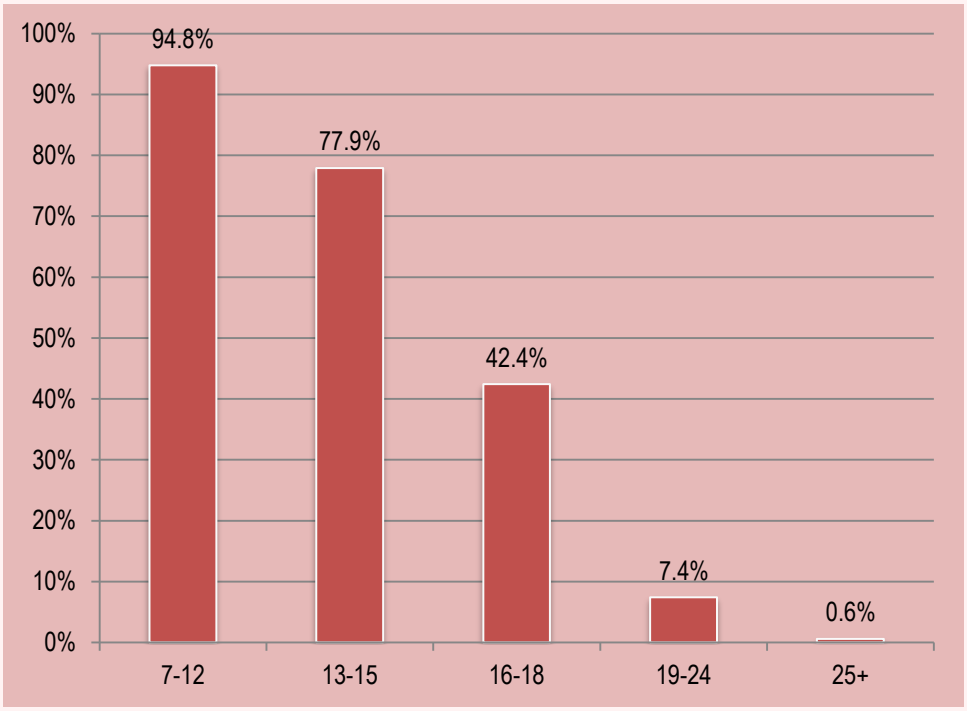


Figure 2.2: School Participation Rate (%) by Age Group, 2010



2.3 Employment

Sakernas data shows that the total working-age population (i.e., aged 15+) in 2013 was about 950,000. Out of the total, about 600,000 or 65% were labour force, either employed or unemployed. There is, however, big variation in the labour force participation rate (LFPR) between age groups. LFPR for young population of aged 15-19 was only 35.0% and this relatively high proportion is mainly due to a relatively low SPR among this age group.

Indonesian is generally viewed as agrarian country as the contribution of agriculture sector to the economy as well as to employment is still dominant. Such a view is inappropriate for Babel province. As shown by Figure 2.3, in 2010 (census data), agriculture shared only 8% to the total employment of the province; in contrast, mining and quarrying[10] shared 22% to the total employment. As the graph also shows, a bigger share (24%) was contributed by forestry than that by mining and quarrying.

Table 2.2: Basic employment characteristics of Babel Province in 2013

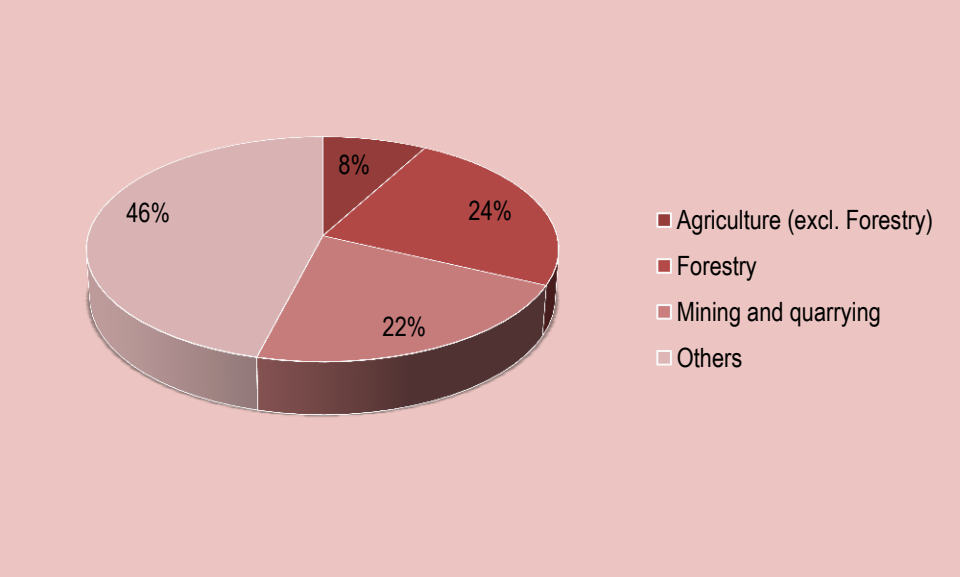
Working-age Population (15+)	Total	Male	Female
Total	948,702	494,999	453,703
Employed	596,786	411,114	185,672
Unemployed	22,914	9,220	13,694
Not in Labour Force	329,002	70,191	258,811

[10] Informal conversation with some senior staff of BPS Babel province (29 August 2014) suggests that for simplicity (as yet still highly accurate) the term of "mining and quarrying" here would be better read "tin mining".

Labour Force Participation Rate (%)	Total	Male	Female
15-19	35.0	45.3	23.0
20-24	66.1	88.6	43.8
25+	70.6	92.8	46.2
Total	65.3	85.8	43.0
Unemployment Rate (%):	**Total**	**Male**	**Female**
15-19	19.2	17.3	23.8
20-24	7.4	7.2	7.9
25+	1.7	1.4	2.6
Total	**3.7**	**3.2**	**4.7**

Source: 2013 Labour Force Survey (August).

Figure 2.3: Employment by major industry, 2010



2.4 Gross Domestic Product (GDP)

Gross Domestic Product (GDP) at current price of Babel province in 2013 was about Rp. 39.0 trillion or US$ 33.9 billion. While these numbers seem at first glance big amounts, they are in fact account only for 0.43% of the national GDP. GDP growth at constant price in 2003 was 5.29% for the province, slightly lower than that for Indonesia (5.78%) (See Table 2.3).

Table 2.3: GDP of Indonesia and Babel Province

	Total GDP (Current Price, Milliard Rp.)	GDP of Non-oil Mining	Share of Non-oil Mining (%)	Growth of Total GDP (%)***	Growth of GDP Non-oil Mining (%)***
Indonesia					
2004	2,295,826	65,122	2.84	5.03	-7.96
2005	2,774,281	104,599	3.77	5.69	12.24
2006	3,339,217	130,716	3.91	5.50	4.84
2007	3,950,893	160,267	4.06	6.35	5.27
2008	4,948,688	195,286	3.95	6.01	-1.00

	Total GDP (Current Price, Milliard Rp.)	GDP of Non-oil Mining	Share of Non-oil Mining (%)	Growth of Total GDP (%)***	Growth of GDP Non-oil Mining (%)***
2009	5,606,203	254,243	4.54	4.63	10.86
2010	6,446,852	332,970	5.16	6.22	7.30
2011	7,419,187	397,629	5.36	6.49	3.41
2012	8,229,439	460,016	5.59	6.26	6.55
2013	9,083,972	477,821	5.26	5.78	5.33
Babel					
2004	11,797	1,712	14.51	3.28	1.04
2005	14,172	2,288	16.15	3.47	0.53
2006	15,921	2,497	15.68	3.98	4.42
2007	17,895	2,688	15.02	4.54	4.99
2008	21,421	2,909	13.58	4.60	-0.17
2009	22,998	3,067	13.34	3.74	2.03
2010	26,713	3,459	12.95	5.99	-0.05
2011	30,484	3,738	12.26	6.50	1.79
2012	34,459	3,888	11.28	5.73	-0.04
2013	38,935	3,981	10.22	5.29	-2.95

Source: BPS, Babel province. (*): Preliminary; (**): Very preliminary; (***): Based on constant price.
Note: For Babel province, non-oil mining is calculated exclusively from tin mining (as no other non-oil mining is produced in the province).

The relative importance of tin mining to the economy is reflected among others by the contribution of non-oil mining to the total GDP. As shown by the table, in 2013 the subsector contributed more than 10% to total GDP of Babel (exclusively tin mining); in contrast, the contribution of the subsector (not only tin mining) to the national GDP in the same year was only 5.26%.

The contribution of the subsector to GDP of Babel which is more significant for Babel than for Indonesia as a whole has taken place for a long time, at least in the last 10 years as shown by Figure 2.4. Nonetheless, as shown by the graph, the contribution tends to be less significant (i.e., tends to decrease in the proportion) for Babel; in contrast, it tends to be more significant (i.e., tends to increase in the proportion) for Indonesia[11]. During 2005-2013 periods, the contribution of the subsector to the total GDP of Babel declined by 5.9 percentage points from 16.1% to 10.2%.

[11] This suggests that to the national GDP, other subsector of non-oil mining other than tin has been providing more and more important contribution.

Figure 2.4: Share of non-oil mining to total GDP (%)

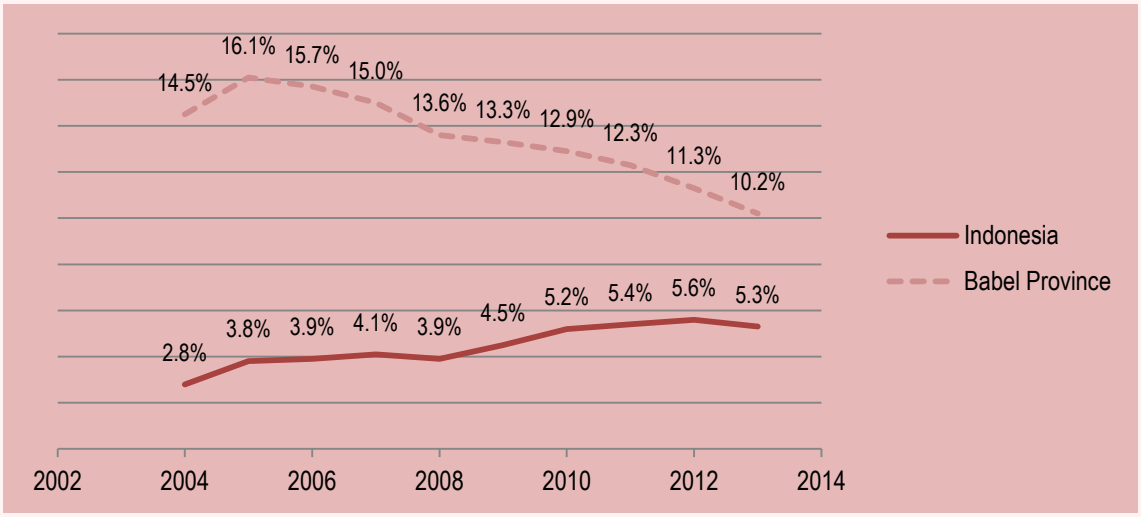
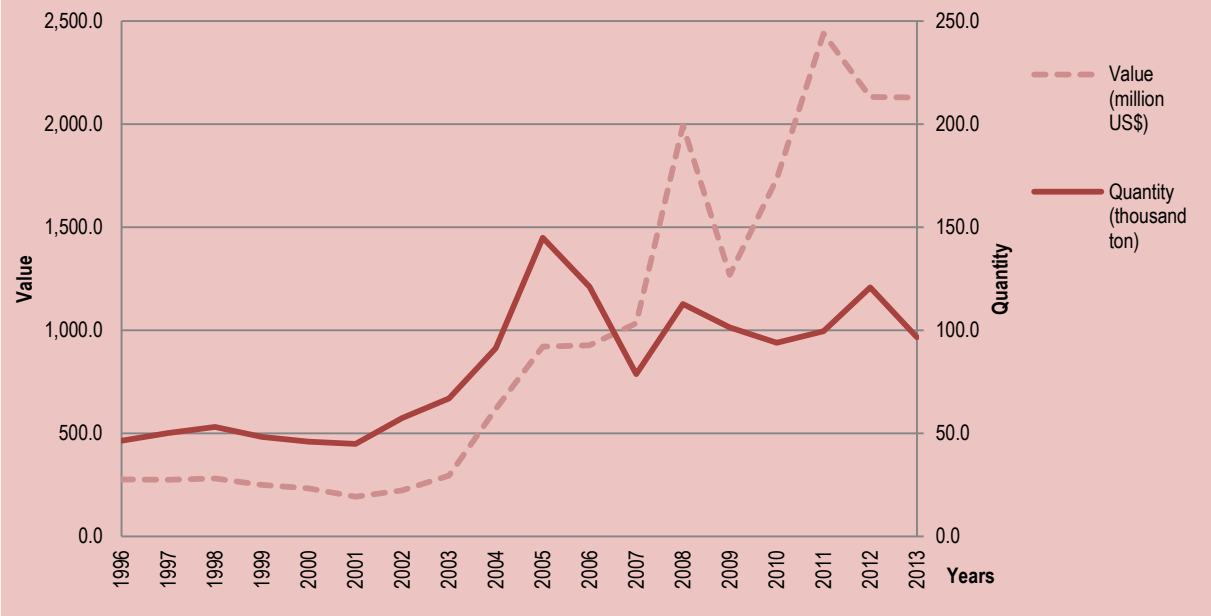


Figure 2.5: Quantity and value of tin export of Indonesia



2.5 Tin export

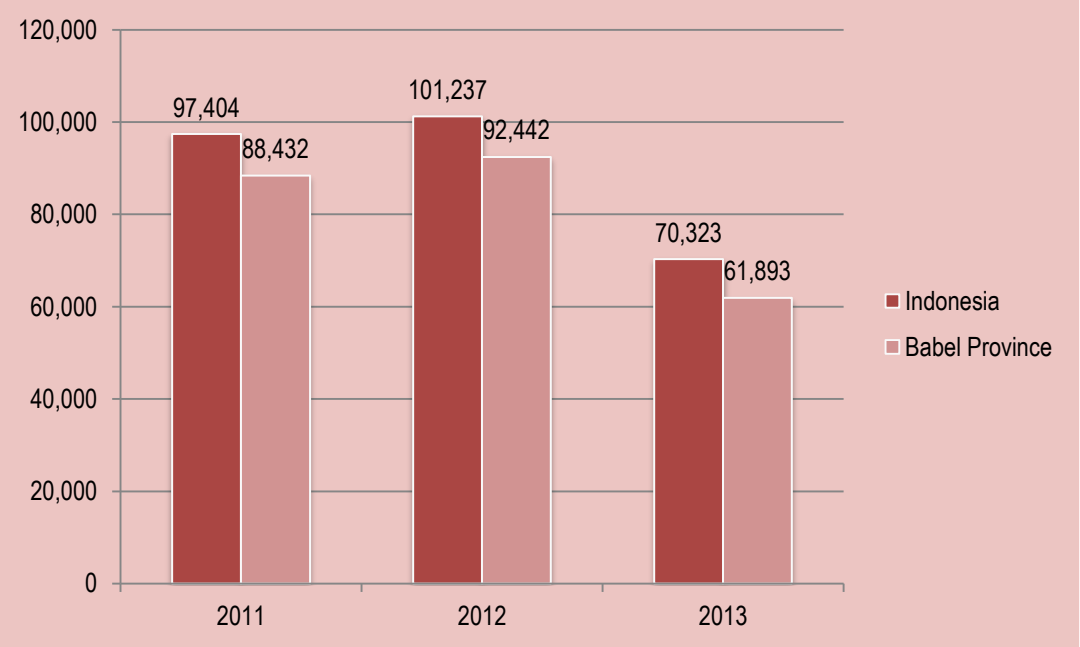
Tin export of Indonesia in 1996 was about 50,150 tons with its value about US$ 0.46 billions. The quantity of the export remains fairly unchanged until 2011, increased sharply in the next four years until reached its peak at 144,550 tons in 2005, then decreased sharply in the next 2 years, and finally fluctuated since 2007 to 2013. In 2013, tin export was 2013 was 96,500 ton and its value was about US$ 2.13 billion. In short, as shown by Figure 2.5, while the quantity of tin export tends to decrease since 2005, the value of tin export in overall tends to increase since 2003, which may reflect the situation of market price of tin at global level.

What might be worth noting is that almost all of tin export of Indonesia was contributed by Babel province. As an illustration, in 2012, out of 191,237 tons exported by the country, 92,442 tons or 91.3% came from Babel province. In the same year, the total value of tin

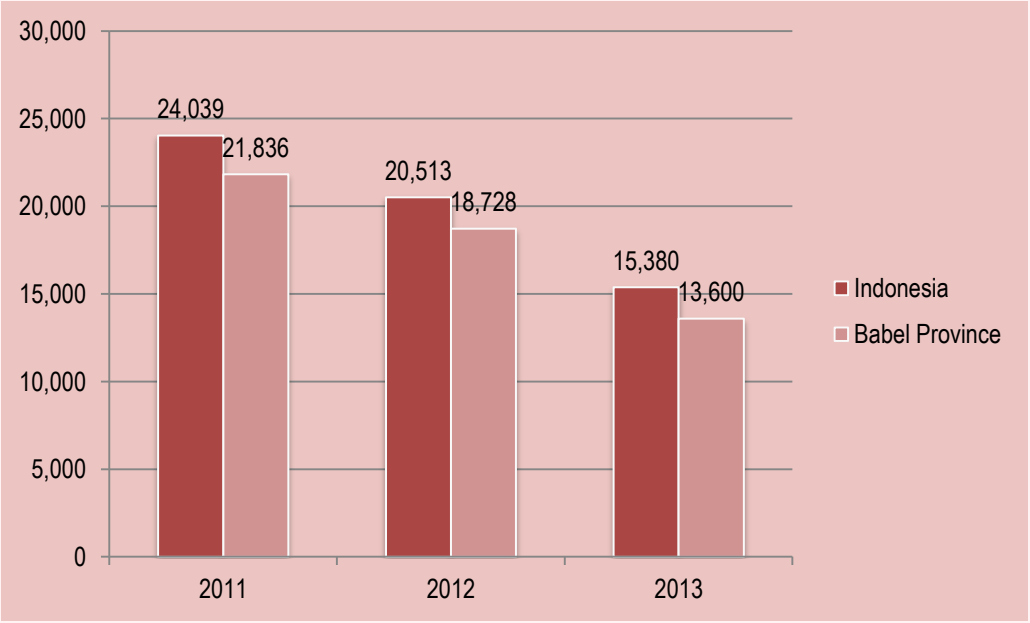
export at national level was US$ 2.1 billion and US$ 1.9 billion or 91.2% was contributed by Babel province (See Figure 2.6).

Figure 2.6: Quantity and value of tin export (unwrought, not alloyed) of Indonesia and Babel Province

A. Production (in ton)



B. Export (in 100,000 US$)



Note: for 2013 were January-September figures.

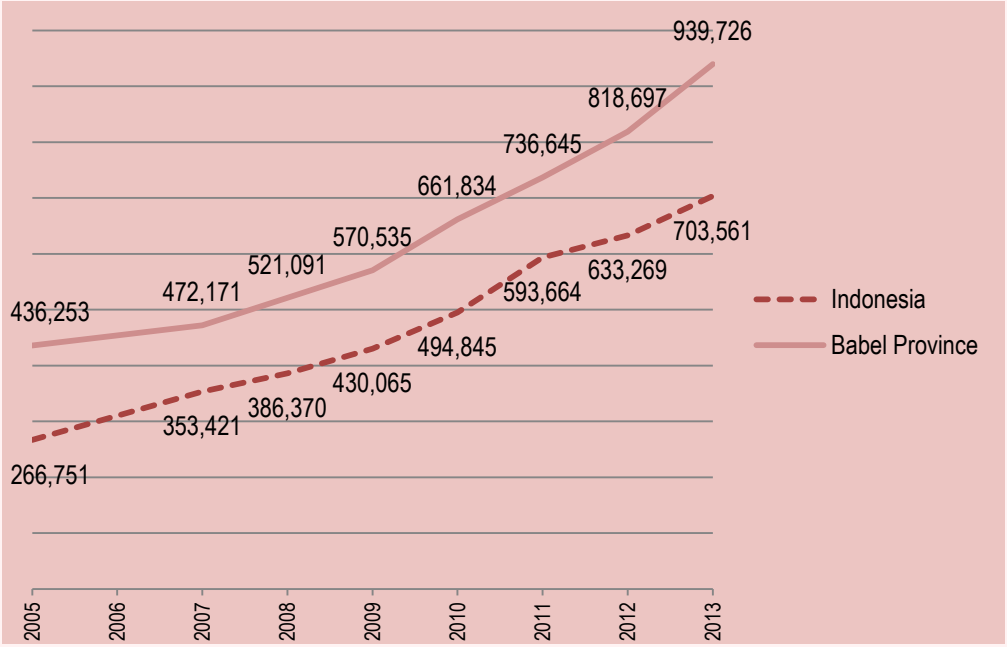
Given the importance of tin for Babel province in terms its shares to GDP, employment and export, it seems justifiable to consider tin mining as the "locomotive" for growth in employment and GDP for the province, at least perhaps for the next 10 years to come[12].

2.6 Socio-economic status

The previous discussion has shown the importance of tin subsector to overall Babel economy as measured by its contribution to employment, GDP, and export. The important question that might be worth answered --especially if the concern if more on welfare of the people than geographic area as such-- is that how is socio-economic status of Babel province. One way to answer this is to look at such indicator as per capita income based on household survey[13].

Figure 2.7 shows among others that per capita expenditure in a month of Babel population in 2013 was about Rp 940,000 or US$ 850. As a comparison, the figure for Indonesia as a whole in the same year was lower, that was, Rp 704 000 or US$ 612. Note that per capita expenditure is used here as a proxy for per capita income.

Figure 2.7: Monthly per capita expenditure (in Rupiah)



The fact that per capita expenditure has been higher for Babel province than for Indonesia has taken place for a long time, at least since 2005 as shown by Graph 2.7. If per capita expenditure is acceptable as indicator to measure socioeconomic status of population, it then can be concluded that the socio-economic status (or economic welfare) is higher for the people of Babel compared to that of the national average.

[12] As a study has reported: "Indonesia proven reserve of tin have fallen to 800,000 tonnes or 8 years production" (http://indonesiamatters.com/1806/tin-mining/).
[13] Per capita GDP is not used here as it is widely critized as too crude to indicate the welfare of population.

Compared to that of the national average, per capita expenditure was more evenly distributed among Babel population as measured by Gini Ratio. As shown by Graph 2.8, in 2013, the ratio was 0.31 for Babel province and 0.41 for the national average. In addition, as also shown by the graph, while for national average the ratio tends to increase (i.e., becomes less equitable), for Babel province it remains unchanged at about 0.3.

Figure 2.8: Gini ratio of Indonesia and Babel Province

Chapter 3 – Methodology

This chapter focuses in rather detail on some major points of methodological aspect of this survey. It covers such topics as mapping, overall sampling design, sampling size calculation, sampling unit selection (i.e., of districts, villages and households), sampling weights as well as estimation, and survey instruments. The instruments consist of listing form and individual questionnaire (see annexes 1 and 2). While the listing form is used to screen tin mining households in order to build the sampling frame of household in the selected clusters, the individual questionnaire is to collect detail individual information in the selected households.

3.1 Mapping

Mapping covers all villages in Babel Province and is intended to identify their locations to the concentration areas of tin mining activities. Villages that are located "near" to a mining site is regarded as "concentration stratum", while the others as "non-concentration stratum." The villages are sampled based on this stratification for listing activity. Mapping activity is implemented using information provided by the census (including village and census bock maps).

Table 3.1: Number of villages by district and strata

District	Concentration stratum	Non-concentration stratum	Total
All strata	228	133	361
Stratum 1: Bangka Island			
Total	**170**	**110**	**280**
Bangka	41	29	70
Bangka Barat	44	20	64
Bangka Tengah	46	11	57
Bangka Selatan	39	14	53
City of Pangkalpinang	0	36	36
Stratum 2: Belitung Island			
Total	**58**	**23**	**81**
Belitung Timur	28	11	39
Belitung	30	12	42

Out of 361 villages in the province, 228 (63%) were identified as a tin mining concentration stratum. District of Bangka Tengah is the most tin mining concentrated district, with 46 (81%) of 57 villages are located near to tin mining sites. Table below shows the distribution of villages by district and tin mining concentration stratum.

3.2 Sampling design

Sampling design adopted in the survey is stratified four-stage sampling. The first stage is to select districts as primary sampling unit (PSU), followed consecutively by the selections of

villages, clusters, and household. Figure 3.1 provides a schematic presentation of sampling design adopted by the survey.

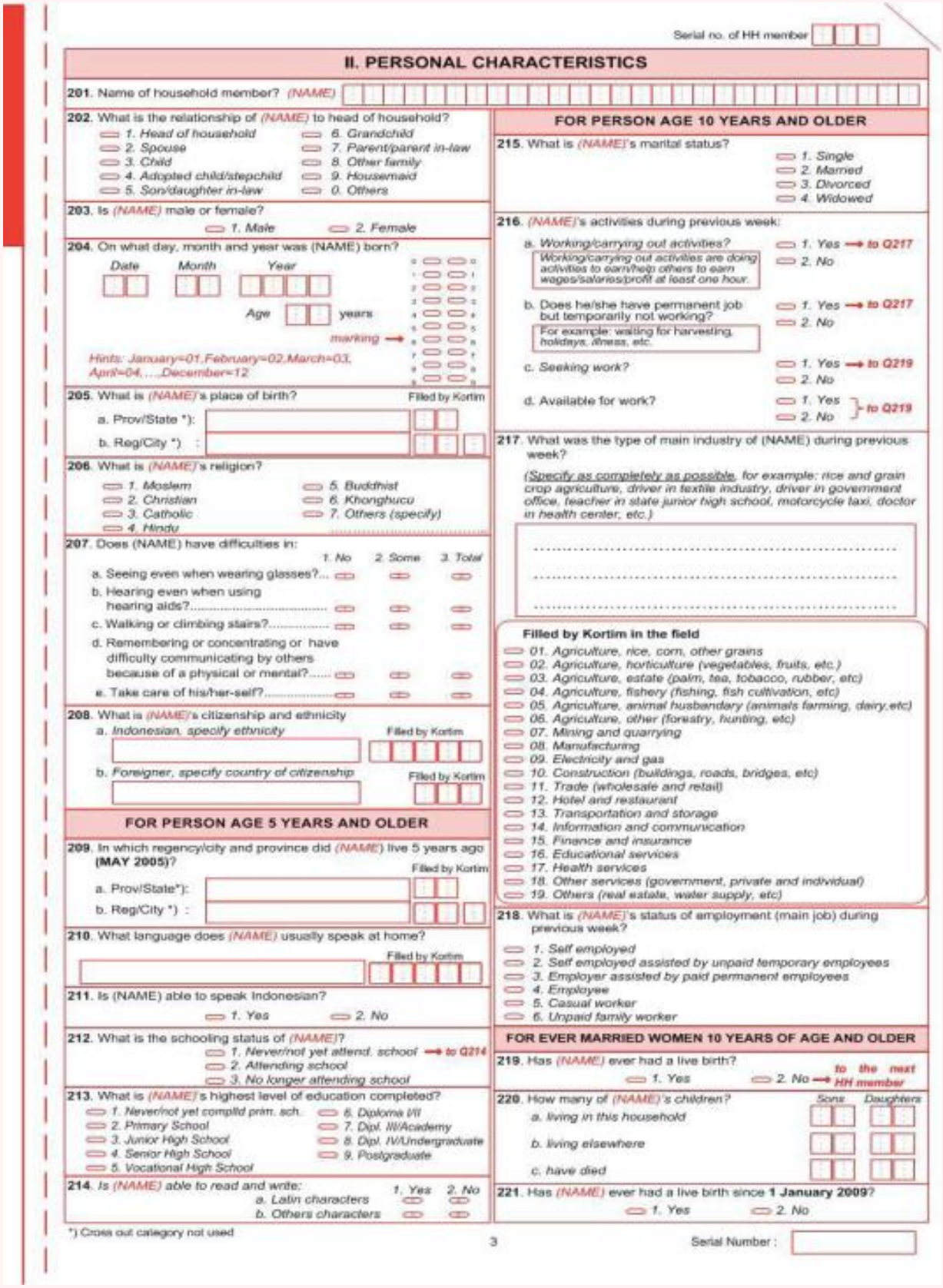
Data used for the stratification were derived from the 2010 Population Census; namely, total employment of children aged 10-17 in the sector of mining and quarrying. Data on employed children at ages below 10 and on subsector tin mining are not available in the census data. Nonetheless, in case of Babel province, subsector tin mining is widely believed covering most (if not all) subsectors of mining and quarrying.

Basic data on working children in Indonesia can be provided by Sakernas and the 2010 Population Census, but only for aged 10-17 as in both data sources questions on employment are asked only for population aged 10 or older. While Sakernas– a sample survey which biannually conducted by BPS-Statistics Indonesia-- is aimed primarily at estimating headline indicators such as Labour Force Participation Rate (LFPR), the census is aimed to collect data on general characteristics of population, including employment, on complete enumeration basis. As for Sakernas, concepts and definitions on employment used in the census adopts the currently used international concepts (i.e., the 18th ICLS) as reflected in question 216 of the census questionnaire (see Figure 3.1). Question 217 shows that the census covers all economic sectors, including mining sector (including but not only tin mining subsector)[14]. In short, the census can provide data on mining in general (but not on tin mining subsector in specific) than can be utilized to develop sampling frame for the survey and the like.

In total there are seven districts in Babel province (including Pangkal Pinang Municipality, the capital city of the province): Bangka, Bangka Barat, Bangka Tengah, Bangka Selatan, Pangkalpinang, Belitung and Belitung Timur. While the five districts are located in Bangka Island, the rest are in Belitung island. Each district has a chance to be selected (non-zero probability) but its probability depends on total employment in mining sector aged 10-17 as revealed from the census data. Table 3.2 highlights method of district selection.

[14] See Comprehensive Documentation of Indonesia's 2010 Population Census, BPS Statistics Indonesia – UNFPA, page 168 (BPS Catalogue: 1205018). General information on the census is available also in http:/sp2010.bps.go.id and http://demografi.bps.go.id.

Figure 3.1: Excerption from the questionnaire of the 2010 Population Census (C1 Form) and sampling design of the survey



Serial no. of HH member

II. PERSONAL CHARACTERISTICS

201. Name of household member? *(NAME)*

202. What is the relationship of *(NAME)* to head of household?
- 1. Head of household
- 2. Spouse
- 3. Child
- 4. Adopted child/stepchild
- 5. Son/daughter in-law
- 6. Grandchild
- 7. Parent/parent in-law
- 8. Other family
- 9. Housemaid
- 0. Others

203. Is *(NAME)* male or female?
- 1. Male
- 2. Female

204. On what day, month and year was (NAME) born?

Date | Month | Year

Age ____ years

marking →

Hints: January=01,February=02,March=03, April=04,....December=12

205. What is *(NAME)*'s place of birth? Filled by Kortim
- a. Prov/State *):
- b. Reg/City *) :

206. What is *(NAME)*'s religion?
- 1. Moslem
- 2. Christian
- 3. Catholic
- 4. Hindu
- 5. Buddhist
- 6. Khonghucu
- 7. Others (specify)

207. Does (NAME) have difficulties in:

	1. No	2. Some	3. Total
a. Seeing even when wearing glasses?			
b. Hearing even when using hearing aids?			
c. Walking or climbing stairs?			
d. Remembering or concentrating or have difficulty communicating by others because of a physical or mental?			
e. Take care of his/her-self?			

208. What is *(NAME)*'s citizenship and ethnicity
- a. *Indonesian, specify ethnicity* — Filled by Kortim
- b. *Foreigner, specify country of citizenship* — Filled by Kortim

FOR PERSON AGE 5 YEARS AND OLDER

209. In which regency/city and province did *(NAME)* live 5 years ago **(MAY 2005)**? Filled by Kortim
- a. Prov/State*):
- b. Reg/City *) :

210. What language does *(NAME)* usually speak at home? Filled by Kortim

211. Is (NAME) able to speak Indonesian?
- 1. Yes
- 2. No

212. What is the schooling status of *(NAME)*?
- 1. Never/not yet attend. school → to Q214
- 2. Attending school
- 3. No longer attending school

213. What is *(NAME)*'s highest level of education completed?
- 1. Never/not yet complld prim. sch.
- 2. Primary School
- 3. Junior High School
- 4. Senior High School
- 5. Vocational High School
- 6. Diploma I/II
- 7. Dipl. III/Academy
- 8. Dipl. IV/Undergraduate
- 9. Postgraduate

214. *Is (NAME) able to read and write:*

	1. Yes	2. No
a. Latin characters		
b. Others characters		

*) Cross out category not used

FOR PERSON AGE 10 YEARS AND OLDER

215. What is *(NAME)*'s marital status?
- 1. Single
- 2. Married
- 3. Divorced
- 4. Widowed

216. *(NAME)*'s activities during previous week:
- a. *Working/carrying out activities?* (Working/carrying out activities are doing activities to earn/help others to earn wages/salaries/profit at least one hour.) — 1. Yes → to Q217; 2. No
- b. Does he/she have permanent job but temporarily not working? (For example: waiting for harvesting, holidays, illness, etc.) — 1. Yes → to Q217; 2. No
- c. *Seeking work?* — 1. Yes → to Q219; 2. No
- d. Available for work? — 1. Yes; 2. No } to Q219

217. What was the type of main industry of (NAME) during previous week?

(Specify as completely as possible, for example: rice and grain crop agriculture, driver in textile industry, driver in government office, teacher in state junior high school, motorcycle taxi, doctor in health center, etc.)

.....

.....

.....

Filled by Kortim in the field
- 01. Agriculture, rice, corn, other grains
- 02. Agriculture, horticulture (vegetables, fruits, etc.)
- 03. Agriculture, estate (palm, tea, tobacco, rubber, etc)
- 04. Agriculture, fishery (fishing, fish cultivation, etc)
- 05. Agriculture, animal husbandary (animals farming, dairy,etc)
- 06. Agriculture, other (forestry, hunting, etc)
- 07. Mining and quarrying
- 08. Manufacturing
- 09. Electricity and gas
- 10. Construction (buildings, roads, bridges, etc)
- 11. Trade (wholesale and retail)
- 12. Hotel and restaurant
- 13. Transportation and storage
- 14. Information and communication
- 15. Finance and insurance
- 16. Educational services
- 17. Health services
- 18. Other services (government, private and individual)
- 19. Others (real estate, water supply, etc)

218. What is *(NAME)*'s status of employment (main job) during previous week?
- 1. Self employed
- 2. Self employed assisted by unpaid temporary employees
- 3. Employer assisted by paid permanent employees
- 4. Employee
- 5. Casual worker
- 6. Unpaid family worker

FOR EVER MARRIED WOMEN 10 YEARS OF AGE AND OLDER

219. Has *(NAME)* ever had a live birth?
- 1. Yes
- 2. No → to the next HH member

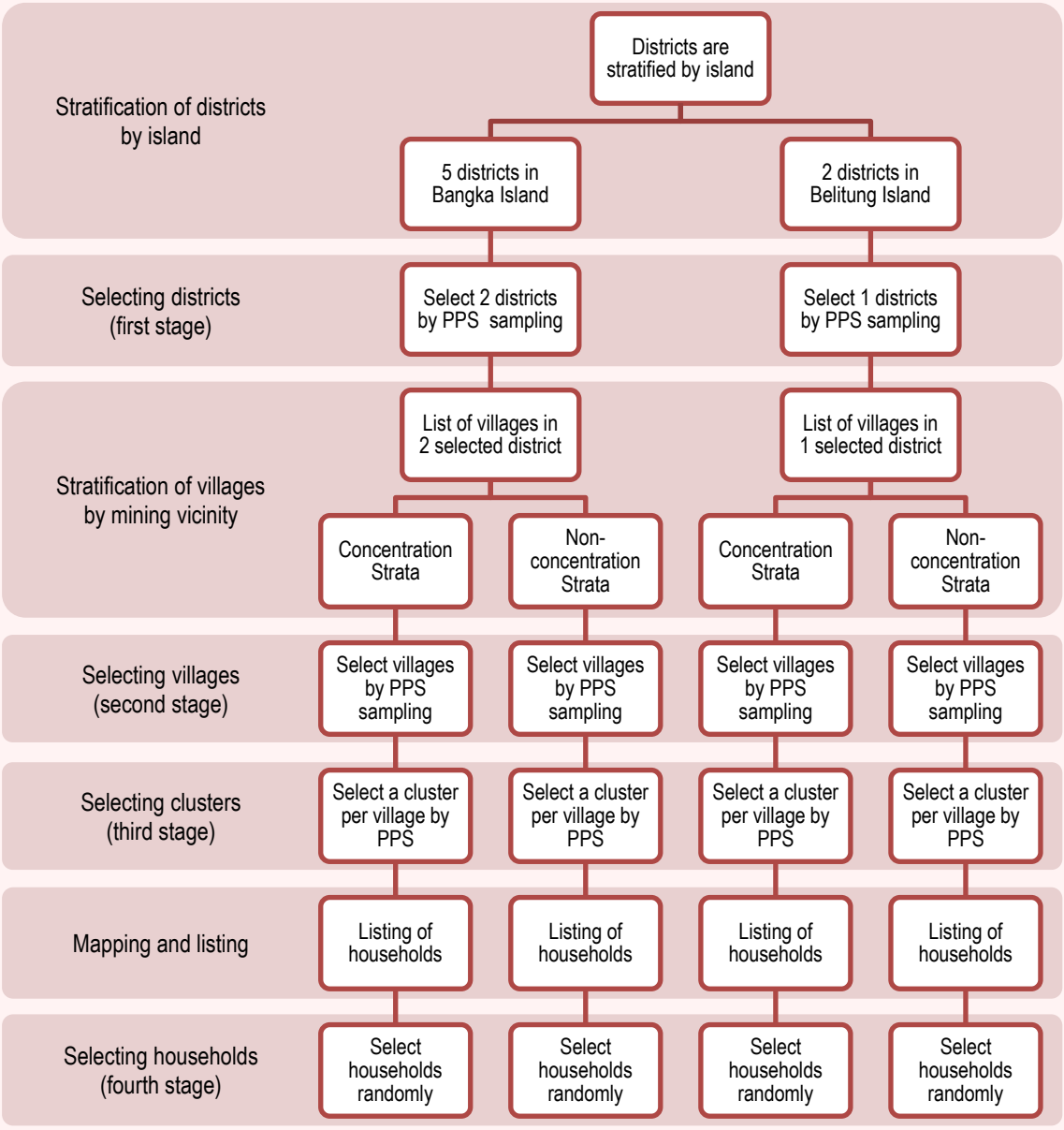
220. How many of *(NAME)*'s children?

	Sons	Daughters
a. living in this household		
b. living elsewhere		
c. have died		

221. Has *(NAME)* ever had a live birth since **1 January 2009**?
- 1. Yes
- 2. No

3

Serial Number :



Stage 1. In Stage 1, we select two districts in Bangka Island and 1 district in Belitung Island by probability proportional to total employment in mining sector aged 10-17 based on the census data.

Based on information of selection probability as shown Table 3.2, eventually two districts of stratum Bangka Island are selected; namely, Bangka and Bangka Tengah districts; one district of stratum Belitung Island is selected; namely, Belitung Timur district. The map of selected districts is shown in the figure below.

Table 3.2: The 2010 census data used for district selection

District	Villages	Households	Population	Pop. age 10-17	Children of age 10-17 working in mining	Selection probability	Selected
All strata	361	311,144	1,223,296	169,880	5,006		
Stratum 1: Bangka Island							
Total	280	242,842	960,868	133,524	4,126		
Bangka	70	70,467	277,204	38,507	1,012	0.245	Yes
Bangka Barat	64	44,855	175,150	23,901	901	0.218	No
Bangka Tengah	57	40,297	161,228	23,128	1,083	0.262	Yes
Bangka Selatan	53	42,388	172,528	25,334	1,087	0.263	No
Pangkalpinang City	36	44,835	174,758	22,654	43	0.010	No
Stratum 2: Belitung Island							
Total	81	68,302	262,428	36,356	880		
Belitung	42	40,361	155,965	22,243	385	0.438	No
Belitung Timur	39	27,941	106,463	14,113	495	0.563	Yes

Figure 3.2: The selected districts in Bangka-Belitung Province

Stage 2. In Stage 2, we select a number of villages in every stratum in selected district by probability proportional to total employment in mining sector aged 10-17 based on the census data (See Table 3.3). Table 3.4 shows sample size of villages for the selected districts.

Table 3.3: The 2010 census data used to allocate sample size of village

Selected district	Stratum 1			Stratum 2		
	M_{ij}	$\bar{X}_{ij}$	S_{ij}	M_{ij}	$\bar{X}_{ij}$	S_{ij}
Bangka	41	21.8	19.1	29	4.0	8.1
Bangka Tengah	46	20.7	14.3	11	12.0	15.6
Belitung Timur	28	15.4	9.7	11	5.7	6.1

Note: M_{ij} refers to the number of village, while $\bar{X}_{ij}$ and S_{ij} to average and standard deviation of the number of employment in mining sector aged 10-17 per village.

Table 3.4: Sample size of village by district and stratum

Selected district	$M_{ij}S_{ij}$			Sample size of village		
	Str. 1	Str. 2	Total	Str. 1	Str. 2	Total
Bangka	782.9	233.5	1,016.4	8	2	10
Bangka Tengah	655.6	172.0	827.5	8	2	10
Belitung Timur	272.4	66.6	338.9	8	2	10
Total				24	6	30

Note: See Note Table 3.3 for statistical notation.

Stage 3. In Stage 3, we select one cluster in each selected village by probability proportional to total employment in mining sector aged 10-17 based on the census data. The cluster selection is based on the village stratum.

After we have selected clusters, all households in those clusters are enumerated to gather information of every household member on whether or not she/he was engaging as a tin mining (both formal and informal) during the reference period (one week prior to the enumeration). This information will be used to estimate the total number child labour in informal tin mining, which is the primary concern of the survey (see Subsection 3.4.1 for more detail explanation on the estimation procedure).

Stage 4. In Stage 4, we select forty households randomly in each selected cluster in every selected district identified during the listing as having at least one member engaging in tin mining. Data on household as well as individual characteristics are collected from the sampled households using a structured questionnaire.

Table 3.5 summarizes sampling plan of the sampling design as adopted by the survey. It shows, among others, sample size of each stage of sampling selection, methods adopted (i.e., PPS except for the last stage), sampling probability and fraction.

Table 3.5: Sampling plan table based on stratified four-stage sampling design

Stage	Sampling unit	Stratification	Total size	Sample size	Method	Size	Probability	Fraction
1	District {*h,i*}	Island {*h*}	N_h	n_h	PPS	X_{hi}	$\frac{X_{hi}}{X_h}$	$\frac{n_h X_{hi}}{X_h}$
		1. Bangka	N_1=5	n_1=2		X_{1i}	$\frac{X_{1i}}{X_1}$	$\frac{2X_{1i}}{X_1}$
		2. Belitung	N_2=2	n_2=1		X_{2i}	$\frac{X_{2i}}{X_2}$	$\frac{X_{2i}}{X_2}$
2	Village {*h,i,j,k*}	Mining vicinity {*j*}	M_{hij}	m_{hij}	PPS	X_{hijk}	$\frac{X_{hijk}}{X_{hij}}$	$\frac{m_{hij}X_{hijk}}{X_{hij}}$
		1. Concentration	M_{hi1}	m_{hi1}=8		X_{hi1k}	$\frac{X_{hi1k}}{X_{hi1}}$	$\frac{m_{hi1}X_{hi1k}}{X_{hi1}}$
		2. Non-concentration	M_{hi2}	m_{hi2}=2		X_{hi2k}	$\frac{X_{hi2k}}{X_{hi2}}$	$\frac{m_{hi2}X_{hi2k}}{X_{hi2}}$
3	Cluster {*h,i,j,k,l*}		C_{hijk}	c_{hijk}=1	PPS	X_{hijkl}	$\frac{X_{hijkl}}{X_{hijk}}$	$\frac{X_{hijkl}}{X_{hijk}}$
4	House-hold		P_{hijkl}	40	Random		$\frac{1}{P_{hijkl}}$	$\frac{40}{P_{hijkl}}$

where,

N_h Number of districts in stratum {*h*},

n_h Number of selected districts in stratum {*h*},

M_{hij} Number of villages in district {*h,i*} village stratum {*h,i,j*},

m_{hij} Number of selected villages in district {*h,i*} village stratum {*h,i,j*},

C_{hijk} Number of clusters in village {*h,i,j,k*},

P_{hijkl} Number of households with at least one tin mining worker in cluster {*h,i,j,k,l*},

X_{hijkl} Number of mining workers aged 10-17 based the census data in cluster {*h,i,j,k,l*},

X_{hijk} Number of mining workers Saged 10-17 based the census data in village {*h,i,j,k*}, $X_{hijk} = \sum_{l=1}^{C_{hijk}} X_{hijkl}$,

X_{hij} Number of mining workers aged 10-17 based on the census data in district {*h,i*} village stratum {*h,i,j*}, $X_{hij} = \sum_{k=1}^{M_{hij}} X_{hijk}$,

X_{hi} Number of mining workers aged 10-17 based the census data in district {*h,i*}, $X_{hi} = \sum_{j=1}^{2} X_{hij}$,

X_h Number of estimated number of mining workers aged 10-17 based on the census data in district stratum {*h*}, $X_h = \sum_{i=1}^{N_h} X_{hi}$.

3.3 Sample sizes

Village sample size

In order to increase the probability of capturing child labour (which is a rare case) we decide to select villages with probability proportionate to the number of children aged 10-17 working in mining as available in the 2010 population census data. The census data shows there are 310 villages (out of 361 total villages in the province) that having at least one mining worker of aged 10-17 with standard deviation is about 14.8. This means there were only 51 out of 361 villages in the whole province have zero probability of being selected in the survey.

Since a multistage sampling design is adopted with district as a primary sampling unit and village as a secondary sampling unit, design effect (deff) is taken into consideration in determining sample size as expressed in the following formula:

$$m = \frac{1}{\frac{d^2}{M^2\, z^2_{\alpha/2}\, S^2} + \frac{1}{M}} \times deff$$

where,

m Sample size of village

M Expected total number of villages with at least one CL in informal tin mining

S Estimate of standard deviation of the number CL in informal tin mining between villages

d Absolut precision, defined as an expected absolute difference between the estimated number and the true one. It can also be expressed as a relative standard error (rse), where $d = rse\left(\hat{Y}\right) z_{\alpha/2}\, \hat{Y}$

$deff$ Design effect

Table 3.6 illustrates the calculation of sample sizes of village based on some scenarios of relative standard error and design effect. Based on the scenarios, it is decided to take sample of 30 villages through the selected districts with expected design effect being between 1.5 and 2.0 and relative standard error between 12-15% which is considered as reasonably small to provide a reasonable precision of estimation of total child labour in in informal tin mining in Babel province.

Table 3.6: Sample sizes of village with various rse and deff values

	deff of 1.5	deff of 2
rse of 10%	39	52
rse of 12%	**28**	37
rse of 15%	18	**24**
rse of 20%	11	14

The total sample is then allocated to each selected district equally (i.e., 10 villages each) for easier logistic management purpose. This equal allocation will be resulted in non-constant sampling fractions, which in turn will be taken into account during analysis and the construction weight for each selected district.

A sample size of village in each district is allocated to each village stratum based on the distance to a mining site: (1) concentration and (2) non-concentration by Neyman allocation method (see Table 3.4). The advantage of using Neyman allocation method is that the method use not only, in this case, the total number of villages as an allocator but also the variation of number of mining worker per village as reflected in the following formula.

$$m_{ij} = \frac{M_{ij}S_{ij}}{\sum_{j=1}^{2} M_{ij}S_{ij}} \times 10$$

where,

m_{ij} Sample size of village in stratum j, j=1 (concentration) and j=2 (non-concentration, in district i

M_{ij} Total number of villages in stratum j and district i

S_{ij} Standard deviation of number of mining workers per village in stratum j and district i

Household sample size

As revealed from the census data, on the average, employment of mining sector aged 10-17 per household in villages with at least one mining worker aged 10-17 is 1.0. It is estimated that the average of child labour in informal tin mining per household is about 0.8 with variance about 3.0[15]. As also revealed from the census data, there were 4,650 households in Babel province that had at least one employment in mining sector aged 10-17 and it can be expected that 90% of those households with at least a child labour in in informal tin subsector.

Since a multistage sampling design is adopted --with district, village and household as primary, secondary and tertiary sampling unit) respectively-- design effect is considered in calculating sample size of household as reflected in the following formula:

$$p = \frac{z_{\alpha/2}^2 S^2}{d^2 + \frac{z_{\alpha/2}^2 S^2}{P}} \times deff$$

where,

p Sample size of household

P Expected total number of households with at least one CL in informal tin mining

[15] Overestimating variance will result in a larger sample size.

S Estimate of standard deviation of the number CL in informal tin mining between households

d Absolut precision, defined as an expected absolute difference between the estimated number and the true one. It can also be expressed as a relative standard error (rse), where $d = rse(\bar{y})\ z_{\alpha/2}\ \bar{y}$

$deff$ Design effect

Table 3.7 illustrates the calculation of sample sizes of household based on some scenario of relative standard error and design effect. In the light of the table, it is decided to have sample size of 1,200 households with expected design effect being between 1.5 and 2 and relative standard error between 10 and 12%. The average sample size of household per village is the 40 households.

Table 3.7: Sample sizes of household with various rse and deff values

	deff of 1.5	deff of 2
rse of 10%	**1,147**	1,529
rse of 12%	861	**1,149**
rse of 15%	584	779
rse of 20%	352	469

Once the sample sizes of village in each district and stratum are obtained, we can then select 8 concentration villages and 2 non-concentration villages in each district with selection probability proportionate to number of mining workers aged 10-17.

3.4 Clustering and Listing

Clustering

The census data shows a big variation in the selected villages in term of household number that ranges from 301 to 5,401 households (See Table 3.8a). With this big variation --also for operational reason-- village is obviously inadvisable to be treated as cluster for any household survey. The census data also shows a big variation in the size of census block within the selected villages (See Table 3.8b). In order to estimate a rare case like child labour in informal tin mining, a census block that contains of 85-90 households on average is also inadvisable (i.e., too small) to be treated as one cluster. The above discussion calls for a creation a cluster in simple cluster sampling of the survey; that is a reasonably homogenous in term of size within a selected village, consists two or more adjacent census blocks with similar total number of households.

To materialize the idea of cluster just mentioned above, each selected village is then grouped into clusters based on the results of the mapping. The strategy to create a cluster with two or more census blocks is to select adjacent census blocks and to ensure that the total households covered is approximately 250-300 households and can be expected as more representative to population than census block.

Table 3.8a: Statistics summary of population size and number of households per village based on 2010 Population Census in the selected villages

District	n	Variable	Mean	SD	Minimum	Maximum
Bangka	10	Population	5,698	6,239.0	1,230	21,406
		Household	1,435	1,581.7	307	5,401
Bangka Tengah	10	Population	3,348	1,894.3	1,256	7,242
		Household	806	437.5	301	1,641
Belitung	10	Population	2,433	832.8	1,304	3,690
		Household	645	217.1	330	929

Table 3.8b: Statistics summary of population size and number of households per census block based on 2010 Population Census in the selected villages

District	n	Variable	Mean	SD	Minimum	Maximum
Bangka	168	Population	339	154.2	20	870
		Household	85	36.1	7	200
Bangka Tengah	88	Population	377	140.0	60	788
		Household	90	31.3	23	179
Belitung	72	Population	338	81.9	145	511
		Household	90	20.5	39	130

An Illustration for a cluster just discussed is presented in Figure 3.2. The figure shows the map of a selected village. The village consists of 17 census blocks: three of them (003P, 008P, and 017P) are underdeveloped as no population living there and hence ignored during the clustering. The village was divided into four clusters, each with 3-4 census blocks and 258-297 households. The list of clusters in the village is shown in Table 3.9.

Figure 3.3: Map of a selected village

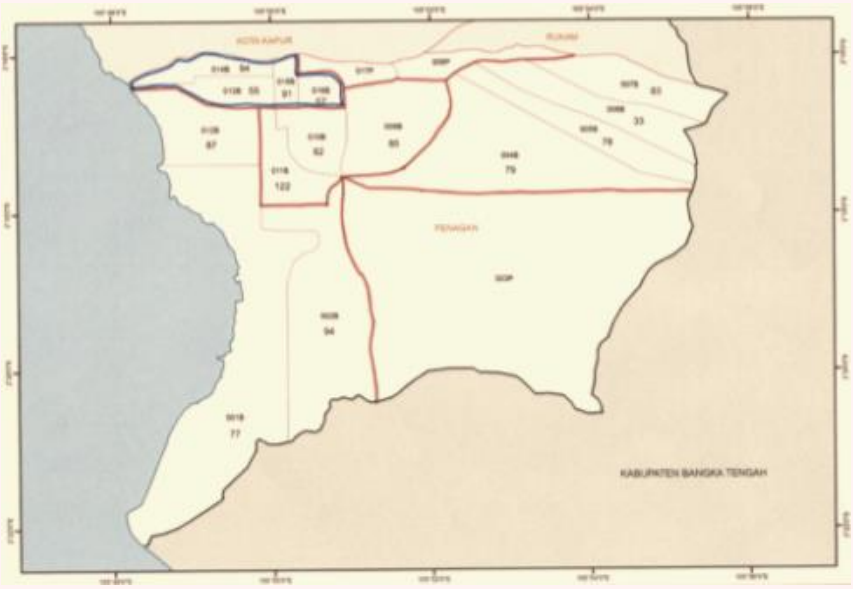


Table 3.9: List of clusters in a selected village

Cluster	Census blocks	No. of households
Cluster 1	001B, 002B, 012B	258
Cluster 2	004B, 005B, 006B, 007B	273
Cluster 3	009B, 010B, 011B	289
Cluster 4	013B, 014B, 015B, 016B	297

Listing

Listing covers all households in the selected clusters to identify employment in tin mining subsector for general population. During the listing questions on sex and age are asked to every household member to identify children aged below 18 who engaged in tin mining activities (regardless of employment status) by sex. Listing will be then crucial in estimating child labour in tin mining in Babel Province, which the major concern of the survey.

3.5 Sampling weight

Based on sampling design as previously discussed in this chapter, the overall sampling weights in the survey are calculated for every selected cluster. There are two different sampling weights used for estimation: total number of child labour in informal tin mining and (2) characteristics of the child labour.

Estimation of total child labour

The sampling weight to estimate total number of child labour in informal tin mining is based on the first three-stage of the sampling design. In the first stage, districts are selected based on stratified PPS sampling. n_1=2 districts of 5 in Bangka Island and n_2=1 district of 2 in Belitung Island are selected with probability of district {*h,i*} selection is proportional to the number of mining workers aged 10-17 based on 2010 Population Census data in the district (X_{hi}). The sampling fraction for the district selection is

$$f_{1;hi} = \frac{n_h X_{hi}}{X_h}$$

and the sampling weight is

$$w_{1;hi} = \frac{1}{f_{1;hi}} = \frac{X_h}{n_h X_{hi}}$$

In each selected district, m_{hi1}=8 villages in concentration stratum {*j*=1} and m_{hi2}=2 villages in non-concentration stratum {*j*=2} are selected with probability of village {*h,i,j,k*} is proportional to the number of mining workers aged 10-17 based on 2010 Population Census data in the village (X_{hijk}). The sampling fraction for the village selection is

$$f_{2;hijk} = \frac{m_{hij} X_{hijk}}{X_{hij}}$$

and the sampling weight is

$$w_{2;hijk} = \frac{1}{f_{2;hijk}} = \frac{X_{hij}}{m_{hij}X_{hijk}}$$

One cluster is selected in each selected village with probability of cluster {*h,i,j,k,l*} is proportional to total employment in tin sector of aged 10-17 from the census data in the cluster (X_{hijkl}). The sampling fraction for the cluster selection is

$$f_{3;hijkl} = \frac{X_{hijkl}}{X_{hijk}}$$

and the sampling weight is

$$w_{3;hijkl} = \frac{1}{f_{3;hijkl}} = \frac{X_{hijk}}{X_{hijkl}}$$

The overall sampling fraction for the cluster selection is

$$f_{hijkl} = f_{1;hi} \times f_{2;hijk} \times f_{3;hijkl} = \frac{n_h X_{hi}}{X_h} \times \frac{m_{hij}X_{hijk}}{X_{hij}} \times \frac{X_{hijkl}}{X_{hijk}} = \frac{n_h X_{hi} m_{hij} X_{hijkl}}{X_h X_{hij}}$$

and the overall sampling weight of selected cluster {*h,i,j,k,l*} to estimate the number of child labour in informal tin mining is

$$w_{hijkl} = \frac{1}{f_{hijkl}} = \frac{X_h X_{hij}}{n_h X_{hi} m_{hij} X_{hijkl}}$$

Estimation of child labour's characteristics

Characteristics of the child labour in informal tin mining are estimated from selected households. In every selected cluster, p_{hijkl}=40 households with tin mining workers are selected randomly from P_{hijkl} households with at least one tin mining worker resulted from the survey listing. The sampling fraction of household in this stage is

$$f_{4;hijkl} = \frac{40}{P_{hijkl}}$$

and the sampling weight is

$$w_{4;hijkl} = \frac{1}{f_{4;hijkl}} = \frac{P_{hijkl}}{40}$$

The overall sampling fraction in the selected cluster {*h,i,j,k,l*} is

$$f_{hijkl} = f_{1;hi} \times f_{2;hijk} \times f_{3;hijkl} \times f_{4;hijkl}$$

$$= \frac{n_h X_{hi}}{X_h} \times \frac{m_{hij} X_{hijk}}{X_{hij}} \times \frac{X_{hijkl}}{X_{hijk}} \times \frac{40}{P_{hijkl}} = \frac{40 n_h X_{hi} m_{hij} X_{hijkl}}{X_h X_{hij} P_{hijkl}}$$

and the overall sampling weight in the selected cluster {*h,i,j,k,l*} to estimate the characteristics of child labour in informal tin mining is

$$w_{hijkl} = \frac{1}{f_{hijkl}} = \frac{X_h X_{hij} P_{hijkl}}{40 n_h X_{hi} m_{hij} X_{hijkl}}$$

All weights are then adjusted by sex and age group specific current projected population size.

3.6 Estimation

Total child labour

If y_{hijkl} is the number child labour in informal tin mining in selected cluster {*h,i,j,k,l*} that is obtained from listing activity, the estimate number of child labour in informal tin mining in Bangka Belitung Province is then

$$\hat{Y} = \sum_{h=1}^{2} \sum_{i=1}^{n_h} \sum_{j=1}^{2} \sum_{k=1}^{m_{hij}} \sum_{l=1}^{1} w_{hijkl}\, y_{hijkl} = \sum_{h=1}^{2} \sum_{i=1}^{n_h} \sum_{j=1}^{2} \sum_{k=1}^{m_{hij}} w_{hijk1}\, y_{hijk1}$$

and the estimated variance of the total estimate is

$$v(\hat{Y}) = \sum_{h=1}^{2} (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} (y^*_{hi} - \bar{y}^*_h)^2$$

$$+ \sum_{h=1}^{2} f_h \sum_{i=1}^{n_h} \sum_{j=1}^{2} (1 - f_{hij}) \frac{m_{hij}}{m_{hij} - 1} \sum_{k=1}^{m_{hij}} \left(y^*_{hijk} - \bar{y}^*_{hij}\right)^2$$

where

(1) y^*_{hijk} is weighted total for village {*h,i,j,k*}

$y^*_{hijk} = w_{hijk1}\, y_{hijk1}$

(2) $\bar{y}^*_{hij}$ is weighted average per village in village stratum {*h,i,j*}

$$\bar{y}^*_{hij} = \frac{1}{m_{hij}} \sum_{k=1}^{m_{hij}} y^*_{hijk}$$

(3) f_{hij} is village sampling fraction in village stratum {*h,i,j*}

$$f_{hij} = \frac{m_{hij}}{M_{hij}}$$

(4) y^*_{hi} is weighted total for district {*h,i,*}

$$y^*_{hi} = \sum_{j=1}^{2} \sum_{k=1}^{m_{hij}} w_{hijk1}\, y_{hijk1}$$

(5) $\bar{y}^*_h$ is weighted average per district in district stratum {*h*}

$$\bar{y}^*_h = \frac{1}{n_h} \sum_{i=1}^{n_h} y^*_{hi}$$

(6) f_h is district sampling fraction in district stratum {*h*}

$$f_h = \frac{m_{hij}}{M_{hij}}$$

Child labour's characteristics

If y_{hijklg} is the characteristic of worker {*h,i,j,k,l,g*} that is obtained from interview activity and y_{hijklg} is a continuous variable such as age, working hours in the past week, working days in the past week, etc., the estimate mean of y is then

$$\hat{\bar{Y}} = \sum_{h=1}^{2} \sum_{i=1}^{n_h} \sum_{j=1}^{2} \sum_{k=1}^{m_{hij}} \sum_{g=1}^{q_{hijk1}} w_{hijk1} y_{hijk1g} \Big/ \sum_{h=1}^{2} \sum_{i=1}^{n_h} \sum_{j=1}^{2} \sum_{k=1}^{m_{hij}} \sum_{g=1}^{q_{hijk1}} w_{hijk1}$$

and the estimated variance of the mean estimate is

$$v\left(\hat{\bar{Y}}\right) = \sum_{h=1}^{2} (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} (y^*_{hi} - \bar{y}^*_h)^2$$

$$+ \sum_{h=1}^{2} f_h \sum_{i=1}^{n_h} \sum_{j=1}^{2} (1 - f_{hij}) \frac{m_{hij}}{m_{hij} - 1} \sum_{k=1}^{m_{hij}} \left(y^*_{hijk} - \bar{y}^*_{hij}\right)^2$$

where

(1) y^*_{hijk} is weighted mean for village {*h,i,j,k*}

$$y^*_{hijk} = w_{hijk1}\, y_{hijk1} / x_{hijk1}$$

(2) $\bar{y}^*_{hij}$ is weighted average per village in village stratum {*h,i,j*}

$$\bar{y}^*_{hij} = \frac{1}{m_{hij}} \sum_{k=1}^{m_{hij}} y^*_{hijk}$$

(3) f_{hij} is village sampling fraction in village stratum {*h,i,j*}

$$f_{hij} = \frac{m_{hij}}{M_{hij}}$$

(4) y^*_{hi} is weighted mean for district {*h,i,*}

$$y^*_{hi} = \sum_{j=1}^{2} \sum_{k=1}^{m_{hij}} w_{hijk1}\, y_{hijk1} \,/ \sum_{j=1}^{2} \sum_{k=1}^{m_{hij}} x_{hijk1}$$

(5) $\bar{y}^*_h$ is weighted average per district in district stratum {*h*}

$$\bar{y}^*_h = \frac{1}{n_h} \sum_{i=1}^{n_h} y^*_{hi}$$

(6) f_h is district sampling fraction in district stratum {*h*}

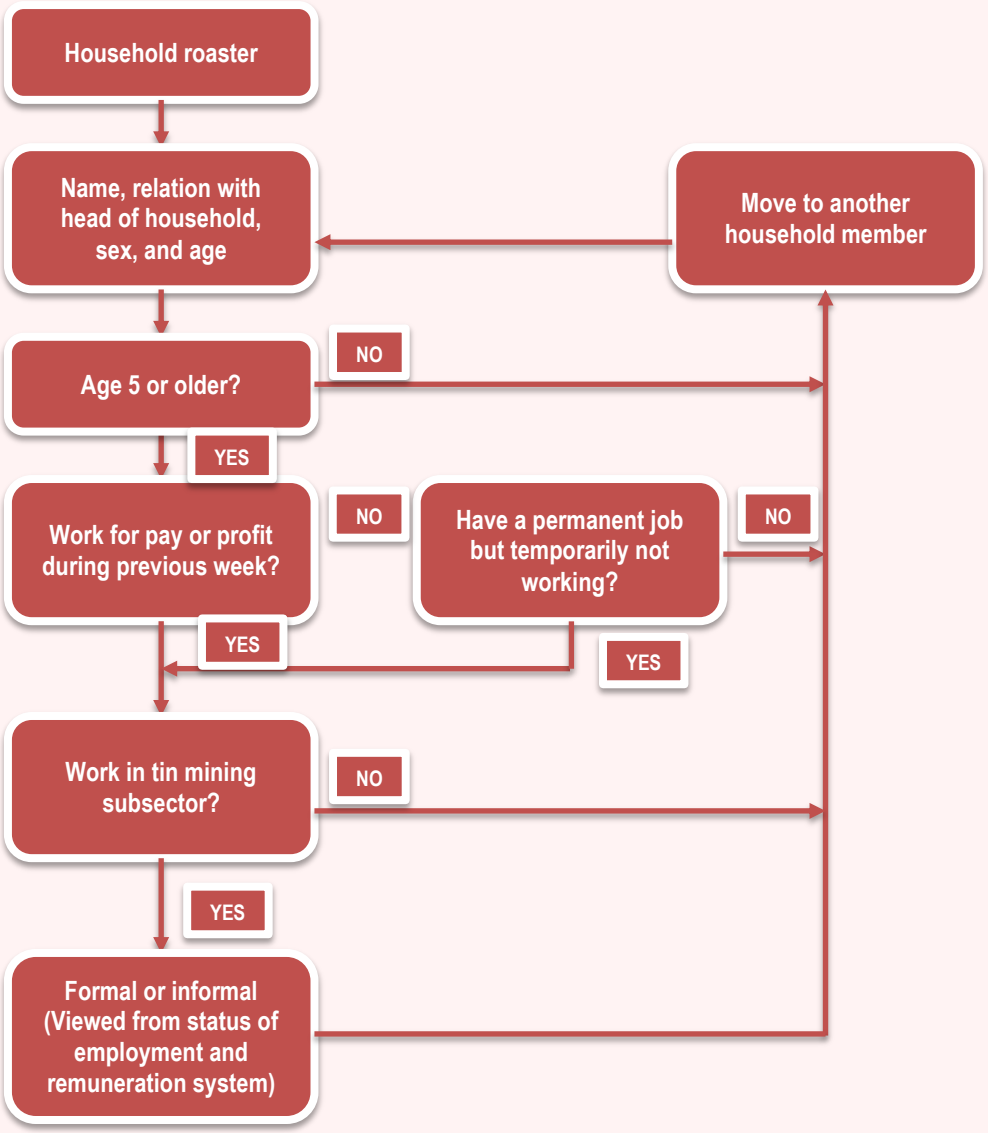
$$f_h = \frac{m_{hij}}{M_{hij}}$$

3.7 Survey instruments

Listing form

There are two survey structured-instruments used to collect the data: (1) Listing form, and (2) Individual questionnaire. The first is designed to list all households in selected clusters. The first is used to collect some basic individual characteristics of all household members, including relationship with head of household, sex, and age. Some other questions for those age 5 or older are asked mainly intended to ensure whether or not a respondent employed, and worked in mining subsector with informal status. The concept of informal (or formal) here is viewed from status of employment and remuneration system.

Figure 3.4: Flow of questions in listing form



Individual questionnaire

Individual questionnaire is used to collect information of individual characteristics of all members of selected households (See 3.1 for the eligibility of selected households). Annex 2, shows a complete representation of the individual questionnaire. As shown by the annex, including in individual characteristics asked by the survey are demographic (age, sex, relationship with head of household; preprinted from the listing), education, disability, and some aspects of employment characteristics (working place, hour of worked, work injury, etc.).

Chapter 4 – Estimation of total child labour in informal tin mining

This chapter is aimed to address mainly one of the objectives of the survey; that is, to assess the magnitude or to estimate the total number of child labour in informal tin mining in Babel Island province of Indonesia. All tables produced in this and next chapters are weighted based on the sampling design weight, as discussed in previous chapter, except stated otherwise. The last part of this chapter describes briefly the nature of child labour and hazards associated with child labour in tin mining which are also the objectives of the survey. Descriptions on these issues are mainly based on observation in mining sites, discussion with workers (mainly adults) in some mining sites visited, and discussion with a number of resource persons met during earlier stages of the survey.

With regards to the estimation of total child labour, the estimate is based on the listing of households in 30 selected clusters in three selected districts; namely, Bangka, Bangka Tengah and Belitung Timur districts (See Annex 1 for Listing Form). The listing data opens opportunity to estimate not only the total child labour (aged 5-17) in informal tin mining, but also the total employment in the subsector as the questions on employment are asked for age 5 and older. As questions on informal employment are also asked, formal employment can then be "implied" as a complement of informal employment. However, as will be clear later, the number of cases of formal employment in tin mining is relatively very small, a direct estimation of their number (and also tabulation) would be resulted in highly unreliable estimation and even misleading; not to mention that formal employment is not the focus of the survey.

4.1 Concepts and definitions

Resolutions and guidelines of the International Conference of Labour Statisticians (ICLS) are applied in developing the concepts and definitions underlying the survey. In this regards, the 18th ICLS (2008)[16] and the 19th ICLS (2013)[17] are of special interest.

Employment. The 19th ICLS resolutions are applied to develop the concept of employment. In this case the concept of employment refers to any kind of productive work to produce goods and services (intended for consumption by others, in exchange) for pay and profit; i.e., in the context of a transaction for remuneration. Work to produce goods or services mainly intended for own-consumption or for other purposes other than pay or profit (such as volunteer) is not regarded as employment.

Child labour. According to the 18th ICLS the terms of child labour as used in the survey includes: (1) children aged 5-11 who engaged in any market-oriented productive activity, (2)

[16] http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms_101467.pdf.
[17] http://www.ilo.org/global/statistics-and-databases/meetings-and-events/international-conference-of-labour-statisticians/19/lang--en/index.htm.

children aged 12-14 who engaged in permissible light work, and (3) adolescents in the age group 15 to 17 years engaged in work not designated as one of the worst forms of child labour[18]. In addition, as stipulated in ILO Convention No. 138 on the minimum age for admission to employment and work, "Any work which is likely to jeopardize children's physical, mental or moral health, safety or morals should not be done by anyone under the age of 18" (regardless of their age groups as specified in the resolution of the 18th ICLS)[19].

Close observations during filed assessment prior to and during to the survey and intense discussion with some reliable sources[20] strongly suggests that informal tin mining is "hazardous" for children in terms of physical, psychological or even perhaps sexual abuse, or in other unwanted working conditions as described in Article 20 of Resolution II of the 18th ICLS concerning statistics of child labour. Examples of such unwanted working conditions that can be easily observable in informal tin mining (discussed below) are working underground, in slippery land, at dangerous heights, and in place exposed to noisy or high vibrations that is potentially damaging to health condition. Section 4.4 of this chapter presents illustration of hazardous situation in informal tin mining.

Given the hazardous situation informal tin mining as just described, and taken of the ILO Convention No. 138 into consideration, the term of child labour used the survey is defined as children in employment or working children of aged 5-17 who work in informal tin mining..

Informal tin mining. For the purpose of this survey, tin mining is defined as informal if it is operated by individual household (rather by formal or registered establishment)[21]. Informal tin mining as such defined is popularly known as TI (stands for "*Tambang Inkonvensional*") which is generally operated using a mining machinery equipment with capacity 24 HP or less. The term TI, instead of the capacity of machine of tin mining, is used in the questionnaire of listing in Bahasa to identify formality of tin mining because of its popularity and clarity to both interviewers and respondents[22]. Close observation during field assessment prior to the

[18] In case of Indonesia (BPS-ILO, 2009: 16), for operation purpose, the variable of hours of work is used as the proxy of "light work" and "worst form": including as child labour are children aged 12-14 who work 15 hours/week or more and those who aged 15-17 who work 40 hours/week.

[19] http://www.ilo.org/ipec/facts/ILOconventionsonchildlabour/lang--en/index.htm

[20] Consultation with participating partners in Babel province suggests that formal questions in a structured questionnaire to collect information on potential hazardous work in tin mining for children is regarded as inappropriate as the respondents of working children would "justify" their work as not hazardous. .

[21] For operational purpose, the term of informal is used here instead of "People's mining" as used in Mining Law 11/1967 or "illegal" as used by Ministry of Energy and Mineral Resource that are regarded as non-operational for a the purpose of data collection as revealed in discussion (held 27 August 2014) with Mr. Yuhanis from the office of Mining Affair of Babel Province. According to the law, People's mining is .. "…the mining activity conducted by the locals in small-scale or in collective with simple tools for their own income. …can only be carried out by the local people holding a Mining Authorization for people's mining. As for illegal mining used by the ministry "Mining business conducted by personal, group of people, or company/foundation which has legal entity which in their operation do not have permit from government institutions according to the law" (Subiman, 2011). In addition, it is worth noting that the survey concerns more on employment using household approach rather than establishment approach, which is inappropriate for estimating employment. In a household approach survey, the major concern is using the term used in the questionnaire (TI, in this regard), which is univocally understood by the respondents, instead of the exactness of the terms.

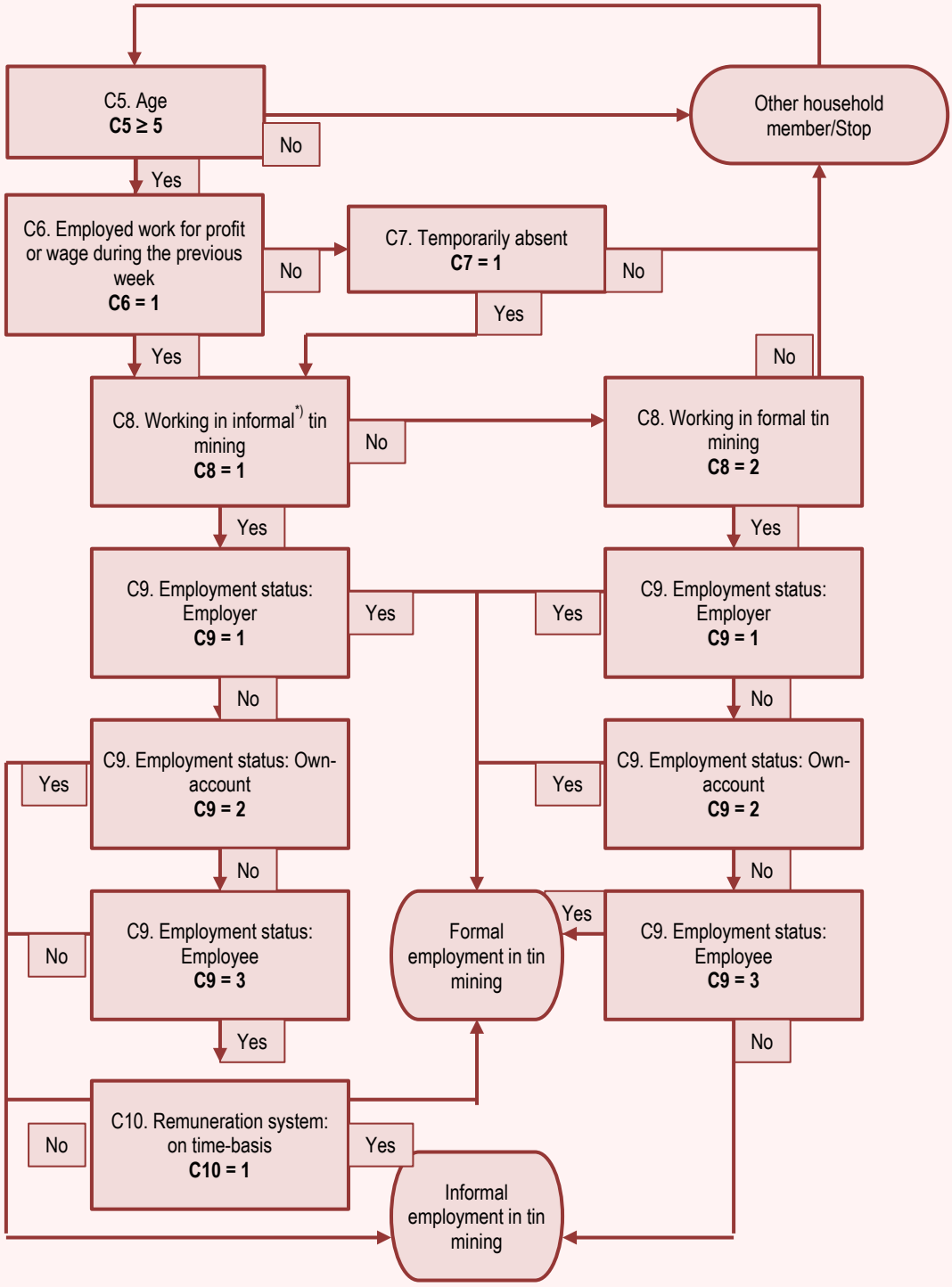
[22] Tin mining with machine capacity of more than 24 HP known as TK ("Tambang Konvensional") or TB ("Tambang Besar") is regarded as non-TI and hence formal tin mining.

survey and discussion with a number of key resource persons strongly suggest that children engaged in tin mining are highly likely work in TI or informal tin mining.

Informal employment. The term of informal employment is defined using three screening criteria; namely, “formality” of tin mining, employment status and remuneration system. Figure 4.1 shows the procedure of defining informal employment using the three criteria.

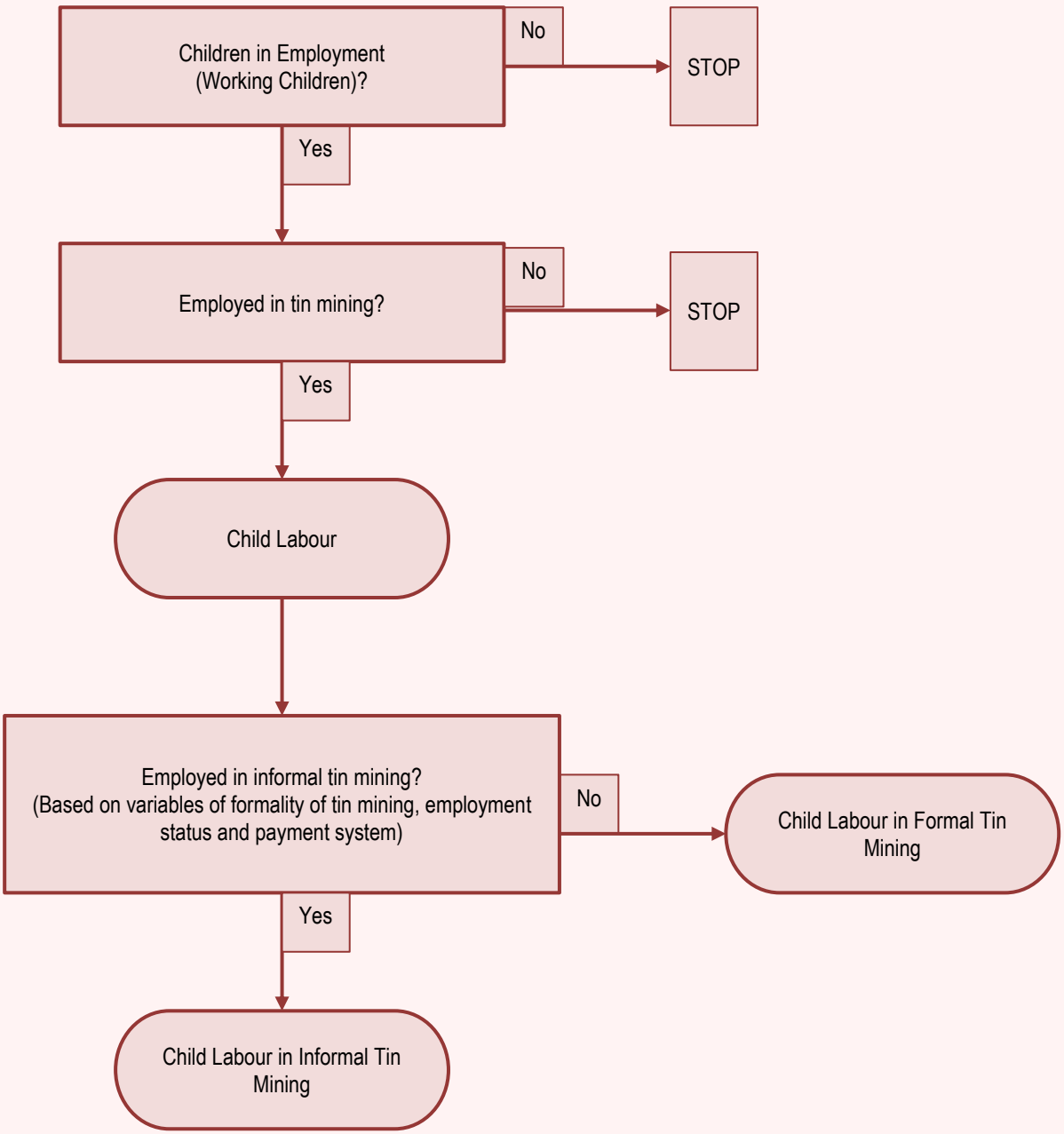
Child labour in informal tin mining. The term of child labour in informal tin mining is defined as child labour (as defined above) who satisfies definition of informal employment (as just defined). Figure 4.2 shows how to define child labour in tin mining, both formal and informal tin mining. As discussed later soon in this chapter, most child labour in tin mining mostly engaged in informal tin mining, working as casual worker and paid on piece-rate basis.

Figure 4.1: Key derived variables to define formal/informal employment



*) Known as TI stands for *Tambang Inkonvensional* means unconventional mining operated by household.

Figure 4.2: Key derived variables to define child labour and child labour in informal tin mining



4.2 Sample characteristics

This subchapter describes sample characteristics of population from listing of households in selected clusters. The objective is to assess the likelihood of sample households (unweighted) resembling overall households in Babel Islands province.

Table 4.1: Sample characteristics (Unweighted)

A. Total households	**8,641**
B. Total population:	**32,390**
Male	16,748
Female	15,642
C. No. of males per 100 females	**107**
D. Average household size	**3.7**
E. Age composition (%):	
<5	9.3
5-17	26.1
18-24	11.3
25-44	33.9
45-64	15.6
65+	3.8
Total	100.0
F. Total employment:	
Aged 5+	13,940
Aged 15+	13,819
G. Employment-to-Population Ratio (%):	
Aged 5+	47.5
Aged 15+	60.9

Table 4.1 shows among others that the number of males per 100 females is 107 according to the survey (unweighted) and 108 according to projection (see Table 2.1). This shows that sampled households selected by the survey have been reasonably representing or resembling population household of the whole Babel province. Well-representation of sampled households are also reflected in other statistics:

- Proportion of children aged 5-17: 26.1% (Table 4.1) compared to 24.0% from the 2010 census (Table 2.1).
- Employment-to-Population Ratio aged 15+: 60.9% (Table 4.1) compared to 62.9% from 2013 Labour Force Survey (Table 2.2).

Well-representation of sampled households as just discussed suggests that initial design can be used appropriately for estimation without any need for post stratification adjustment.

4.3 The results of estimations

Total estimates

Table 4.2 Panel A and Table 4.3 Panel A show the estimates of population and of employment for children and for adult respectively, based on the results of listing in all 30 sampled clusters in Babel province. The table shows, among others, that the total numbers of employment, irrespective of economic sector, are 15,000 for children aged 5-17 and 576,000 for adult aged 18+. As for tin mining, the totals are about 6,500 for children and 155,000 for adult. Within 95% confidence interval the totals are between 4,700 and 8,300 for children and between 131,000 and 179,000 for adult.

Table 4.2: Estimations of population and employment of children aged 5-17

	Estimates	Standard error	95% confidence interval	Relative standard error (%)
A. Total (number)				
Population	318,630	25,202	268,569 - 368,691	7.9
Employment	15,157	1,980	11,225 - 19,089	13.1
Employment in tin mining	6,505	895	4,727 - 8,282	13.8
Employment in informal tin mining	6,282	892	4,509 - 8,054	14.2
B. Ratio to population (%)				
Employment-to-Population Ratio	4.76	0.44	3.87 - 5.64	9.2
Employment in tin mining-to-Population Ratio	2.04	0.24	1.57 - 2.51	11.8
Employment in informal tin mining-to-Population Ratio	1.97	0.24	1.50 - 2.44	12.2
C. Ratio to total employment (%)				
Ratio of Employment in Tin Mining to Total Employment	42.92	5.36	32.26 - 53.57	12.5
Ratio of Employment in Informal Tin Mining to Total Employment	41.44	5.27	30.97 - 51.92	12.7

Table 4.2 shows also that children in employment in tin mining is mostly engaging in informal tin mining: out of 6,505 of total employment in tin mining, 6,282 or 96.6% are engaging in informal tin mining. As a comparison, the proportion for adult is about 78.1% as shown by Table 4.3.

The table also shows some indicators of employment in tin mining for children. The table shows, among others that 4.8% of children aged 5-17 are employed (compared to 65% for adults as shown in Table 4.3), regardless of economic sector. The table also shows about

43% of employed children are engaging in tin mining that are almost all in informal tin mining. For adults the ratio is about 27% (Table 4.3).

Table 4.3: Estimations of population and employment of adult aged 18 or older

	Estimates	Standard error	95% confidence interval	Relative standard error (%)
A. Total (number)				
Population	883,452	59,953	764,363 - 1,002,542	6.8
Employment	575,937	40,363	495,761 - 656,113	7.0
Employment in tin mining	154,719	12,152	130,580 - 178,857	7.9
Employment in informal tin mining	120,776	9,477	101,952 - 139,600	7.8
B. Ratio to population (%)				
Employment-to-Population Ratio	65.19	0.88	63.44 - 66.94	1.3
Employment in tin mining-to-Population Ratio	17.51	0.97	15.59 - 19.44	5.5
Employment in informal tin mining-to-Population Ratio	13.67	0.79	12.11 - 15.23	5.8
C. Ratio to total employment (%)				
Ratio of Employment in Tin Mining to Total Employment	26.86	1.59	23.70 - 30.03	5.9
Ratio of Employment in Informal Tin Mining to Total Employment	20.97	1.29	18.41 - 23.53	6.2

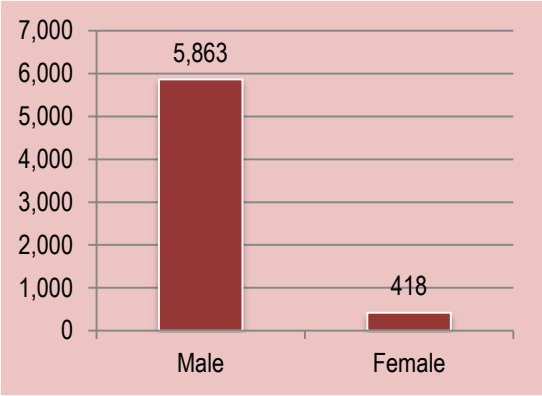
Sex and age comparisons

Comparison between sexes suggests that informal tin mining is a male-dominated subsector. As Figures 4.3A and 4.3B show, about 5,863 or 90% of children who engaging in informal tin are boy; as for adult, the proportion of male in the subsector is 70%.

Figures 4.4A and 4.4B show that the number of child labour in informal tin mining tends to increase by age: the number is only 578 for age group 5-11, 1,387 for age group 12-14 and 4,317 for age group 15-17. For adult, employment in the subsector is mostly at age group 25-44.

Figure 4.3: Employment in informal tin mining by sex

A. Child Labour



B. Adult Employment

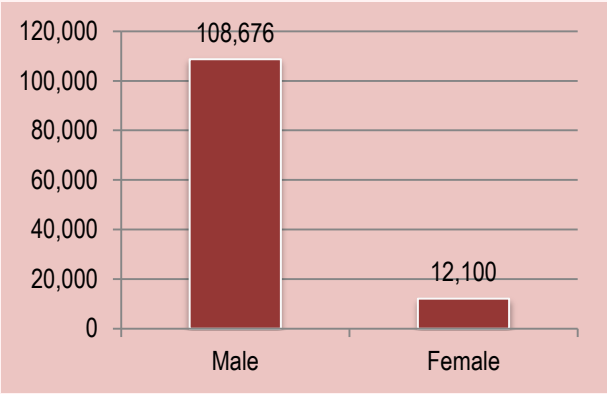
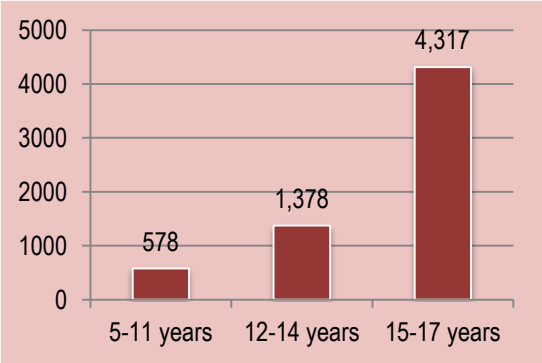
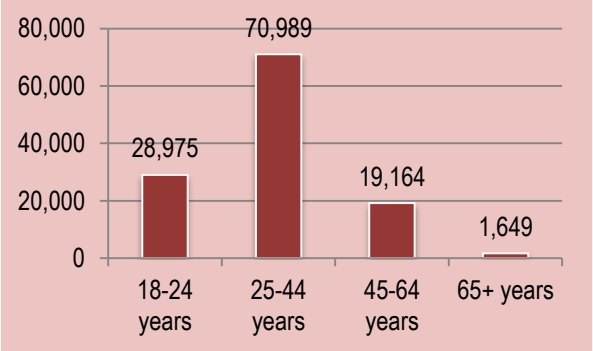


Figure 4.4: Adult employment in informal tin mining by age

A. Child Labour



B. Adult Employment



On employment status and remuneration system

Child labour in informal tin mining is as casual workers or as employee. Table 4.4 shows, the number of child labour working as casual workers accounts for more than half; that is, 3,275, within 2,056-4,494 of 95% confidence interval. As also shown by the table, the number of unpaid workers for child labour is estimated only 44 cases and, this is important note, the estimation is highly unreliable as the relative standard error is almost 73%.

Table 4.4: Estimations of total employment in informal tin mining of children aged 5-17 and adult aged 18 or older by employment status

	Estimated total	Standard error	95% confidence interval	Relative standard error (%)
A. Children aged 5-17				
Own-account	111	72	1 - 254	64.9
Employee	2,852	506	1,847 - 3,857	17.7
Casual workers	3,275	613	2,056 - 4,494	18.7
Unpaid workers	44	32	1 - 108	72.7
Others	-	-	-	-
B. Adult aged 18+				
Own-account	12,067	3,137	5,834 - 18,300	26.0
Employee	73,185	6,266	60,736 - 85,635	8.6
Casual workers	34,037	3,319	27,444 - 40,631	9.8
Unpaid workers	584	180	226 - 942	30.8
Others	903	312	283 - 1,523	34.6

As for adult, the majority of employment status of workers in informal tin mining is employee. As Table 4.4 shows, its number is about 73,185 within 60,736-85,636 of 95% confidence interval. As the table also shows that unpaid workers for informal tin mining for adult, practically speaking, is negligible.

As for remuneration system, Table 4.5 shows that in most cases, workers in informal tin mining are paid on piece-rate basis, not on time basis, which is the character of formal employment. This is true for both children and adults.

Brief analysis on employment status and remuneration system as just given above would strongly suggest that tin mining workers are mainly of informal employment and this true for both children and adult.

Table 4.5: Estimations of total employment in informal tin mining by remuneration system

	Estimated total	Standard error	95% confidence interval	Relative standard error (%)
A. Children aged 5-17				
Mainly on time-basis	-	-	-	-
Other	6,282	888	4,518 - 8,046	14.1
B. Adult aged 18+				
Mainly on time-basis	221	113	1 - 446	51.1
Other	120,555	9,341	101,998 - 139,112	7.7

4.4 The nature of child labour in hazardous informal tin mining

As described earlier in Section 4.1, in the survey all children in employment or working children who work in TI or informal tin mining is defined as child labor. The rationale for this is that the nature of all kinds of work --as can be easily observed-- in almost all TI is hazardous for children (basically even also adults). Figure 4.5 illustrates the typical the environment of a TI.

All photos shown in the figure were taken during a field assessment activity prior to the survey. It is worth noting that all photos are selected because of their commonality in that they represent a common or typical situation found in a TI. This has been confirmed by a number of key resource persons in informal conversation with the researchers or in other occasions (FGD, during a meeting, etc.). Observations of some other mining sites support the argument.

Photo 1. Photo 1 in the top illustrates the activity in a tin mining unit called production unit. In this unit the first attempt to separate tin material from other unwanted materials is done normally by 6-8 workers in the morning. A high pressure water is used in the activity. The location is 7-10 meters in deep. As observed, the work environment in the location is highly hazardous in a multiple ways: slippery land, dangerous height, noisy level and vibration come from an operating machine used to produce a high pressure of water. The concerned issue here is that children of age 15-17 can be found in such dangerous environment of the production unit.

Photo 2. Photo 2 in the lower left shows an example of child labour (aged 16) who involved in tin mining work. He reported his major tasks in a tin production unit as a free-lancer and mostly work on half-day basis as he has to go school in the morning. He reported his task is basically to do all kind of works in the production unit: operating machine to produce a high pressure water, digging a rocking earth to locate tin deposit, managing the flow of water to separate tin-contained materials from other unwanted materials, etc. He also reported some of his friends do the same work as his.

Photo 3. Photo 3 in the lower right shows that children of aged 10 and 11 years old doing “ngelimbang” or panning; i.e., collecting tin sand using a pan by separating it from residual materials of which tin contain is regarded by the owner of mining as negligible.

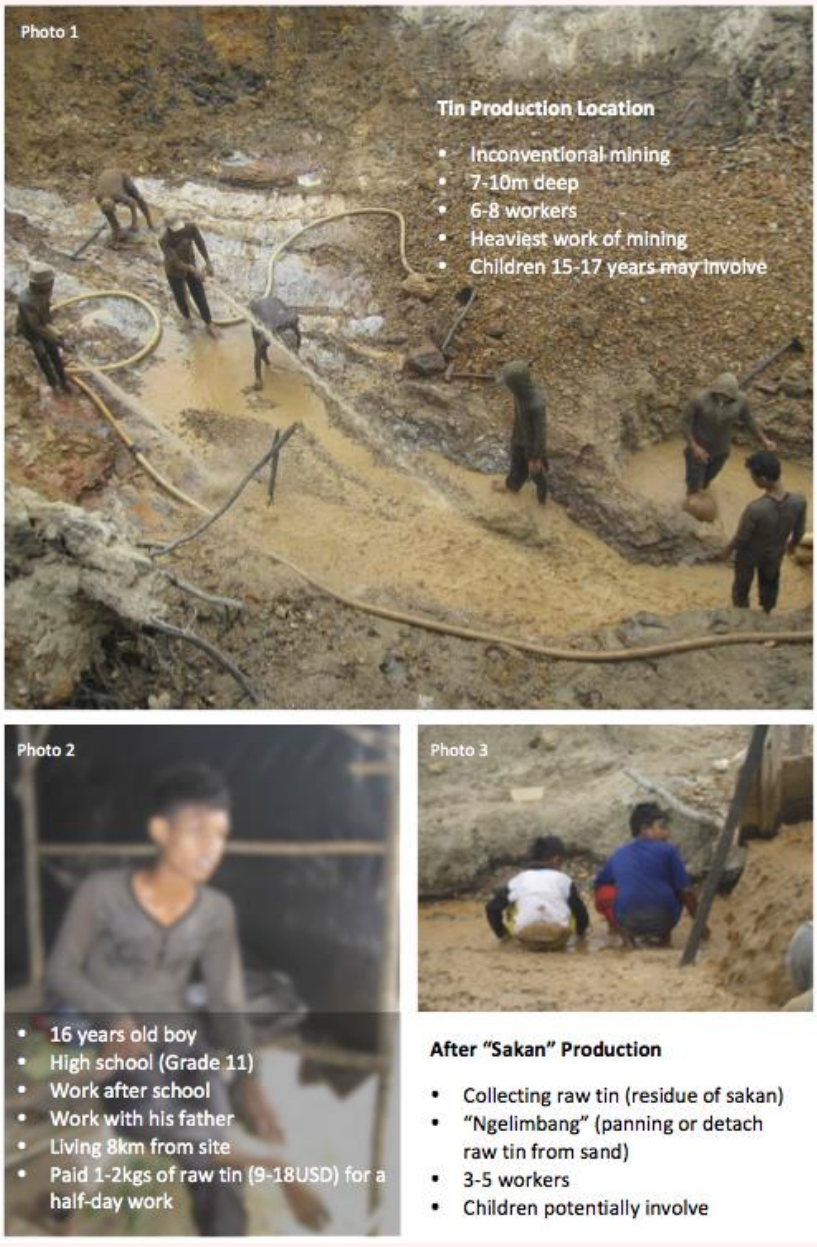
The panning work is typical work for child labour who engaged in tin mining. The work is done right behind a “sakan” or a simple tool for purifying tin mining from other unwanted materials. The owner of a TI is generally regarded that the purifying process in the *sakan* is the last process of tin production as for him/her the materials produced after *sakan* process just residuals with poor contain of tin sand. Nonetheless, a panning work after *sakan* process is, as reported by a child in the photo and confirmed by the owner of tin mining, could produce one kilogram of tin sand worth about Rp. 90,000 or US$ 7-8 in a half-day work.

Both children in the photo reported work in tin mining 3-4 days in a week in the afternoon as they have to school in the morning. They reported they work in tin mining with their parent permissions and using their earning from their work for their own use (“jajan” in their own

language). They reported also that some of their friends use to work in the same job for their "jajan".

There are at least two concerned issues here. The first is the location for the panning work is normally far from the children's place of residence and to reach there, poor quality, unsafe and slippery roads have normally to be passed through. As for the children the third photo, they used to ride a motor-cycle to get there which is located in 10 km distance from their homes. The second, the location of panning work is normally an open area which is normally surrounded by slippery land and full water of a dam-like big holes. Such an environment is obviously highly exposed to sun heating, get wet from raining, and even drowning. Just to reiterate, precisely due to such high risk of injury accident, and by taking the ILO Convention No. 138, all children work in informal tin mining are considered as child labour.

Figure 4.5: Child labour in informal tin mining



Chapter 5 – Schooling status and employment characteristics of child labour

This chapter is aimed to describe schooling status and employment characteristics of child labour, including working place and working accidence, in Babel province, based on in-depth interviews of about 1,200 sampled households in three selected districts; namely, Bangka, Bangka Tengah and Belitug Timur districts. The response rate of the interview is almost universal. In the last part of this chapter is inserted brief discussion on the issue of attitude and perception of children and parents on education which is also the concern of the survey.

As described in Chapter 3, all sampled households were visited during the listing and some of the listing results --names and sexes of household members-- are used as pre-printed in the questionnaire of the in-depth interview. As revealed in a validation seminar participated by field supervisors, the pre-printed system has been widely recognized as very useful for field workers to find sampled households, to reduce interview time, and to ensure the consistency between the results of the listing and in-depth interview. As also described Chapter 3, all of the sampled households are "tin mining households" in that they have at least one member employed in tin mining subsector.

Before going further to describe the results of the in-depth interview, a parentheses regarding the characteristics of sampled households would be worth inserted.

5.1 Sample characteristics

Table 5.1 summarizes sample characteristics (unweighted) of the in-depth interview. The table shows among other that the sex ratio of the sample is 119; i.e., 119 males for 100 females. This ratio is obviously high as compared to the listing results that is 107 (See Table 4.1). However, this is understood as the samples of the in-depth interview are drawn from tin mining households that are presumably rather bias to males (as employment tin mining is predomiantly males). In addition, application of an appropriate weighting as described in Chapter 3 resulted in sex ratio of 108 which is very close to the listing results.

As for age composition, Table 5.1 shows that the proportion of children aged 5-17 which is of the primary concern of the survey is 27.0%. This proportion is reasonably close to the listing results that is 26.1% (See Table 4.1). This shows that sample households selected by the survey have been reasonably representing or resembling population household of the listing and hence of the whole Babel province.

Another point that might be on interest as shown by Table 5.1 is that schooling participation rates of children in employment is much lower than that of overall children. The big difference in the rates would indicate that a strong negative association of working status and school participation of children aged 5-17 is in effect. However, this finding needs validation using an appropriate weighting-based estimation as discussed later in this chapter.

Table 5.1: Sample characteristics (unweighted)

A. Total sampled households	**1,195**
B. Total population:	**4,920**
Male	2,678
Female	2,242
C. No. of males per 100 females	**119**
D. Average household size	**4.1**
E. Age composition (%):	
<5	9.7
5-17	27.0
18-24	14.5
25-64	47.1
65+	1.7
Total	100.0
F. Total employment:	
Aged 5+	2,310
Aged 15+	2,260
G. Employment-to-Population Ratio (%):	
Aged 5+	52.0
Aged 15+	65.4
H. School participation of children aged 5-17 (%):	
a. All children	76.3
b. Children in employment	25.0
c. Child labour in tin mining	23.6

5.2 Schooling status

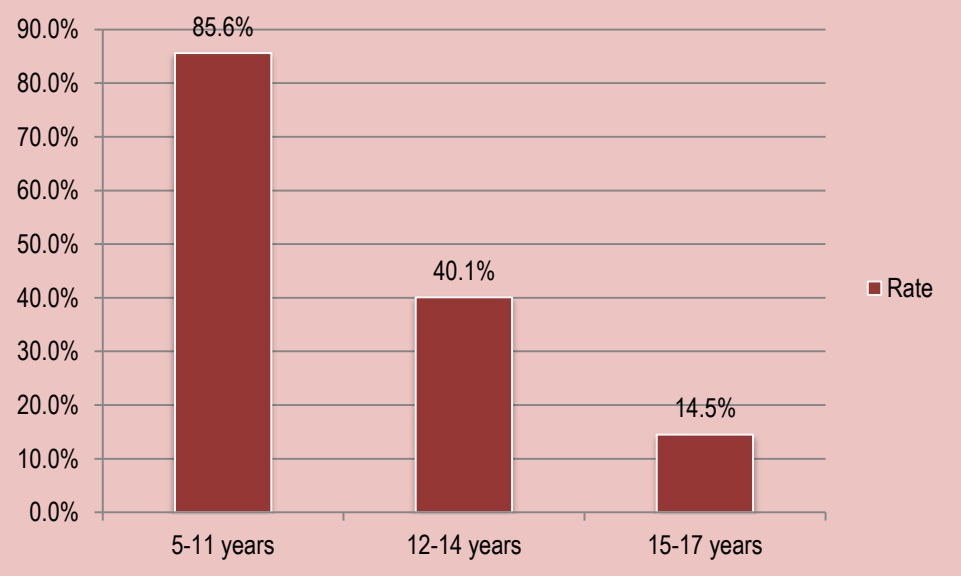
School participation rate

Table 5.2 shows the (weighted) estimates of school participation rates (SPR) by age groups. As shown by the table, for children aged 5-17 as a whole, SPR is about 76%. For children at the same age group who are in employment, the proportion is much smaller; that is about 27 %. Moreover, for child labour in tin mining; i.e., children at the same age group who employed in tin mining subsector, SPR is even smaller that is about 23%, within 11-35% of 95% confidence interval. Comparison between the proportions suggests a strong negative association between ”working status” on school participation among children aged 5-17 as previously indicated.

Table 5.2: Estimation of school participation rate of children aged 5-17 (%)

Children aged 5-17	Estimated proportion	Standard Errors	95% confidence interval	Relative standard errors (%)
All children	76.2	1.97	72.3-80.1	2.6
Children in employment	26.8	5.50	15.9-37.7	20.4
Child labour in informal tin mining	23.2	6.08	11.1-35.3	26.2

Figure 5.1: School participation rate of child labour in informal tin mining (%)



Graph 5.1 shows SPRs for child labour aged 5-17 in tin mining by age group. It shows that SPRs tend to decrease by age; i.e., the older the the children, the less likely they participate in school.

The strong negative association between schooling status and working status for children as just discussed could have been associated with a relatively simple job but high remuneration offered by tin mining. It is generally recognized that "ngelibang" (panning work) in tin mining --generally regarded as "compatible" for children-- can resulted in one kilogram of tin sand worth US$7-8 in a day. This is likely associate with the situation where parents among Babel society generally recognize children education --especially for elementary school-age (7-12)-- as not too important[23]. Section 2.5 discuses further the concerned issue of the value of education for parents and children in Babel province.

Schooling status and drop out

Estimation of total (instead of the proportion) of the concerned case might be useful for planning-related purposes. Table 5.3 is presented to serve the purposes with regard to

[23] Revealed in a validation seminar (See note 2). In the seminar it was revealed that parents are generally "protective" for their chidren; i.e, not to permit their chidren to quit schooling to earn money. However, this applies only for elementary school-age (5-17) but not for higher schooling age groups (13-15 and 16-18).

schooling status. The table shows the estimated total population by schooling status. From the table it can be estimated, for example, that the total children age 5-17 is about 320,000. Out of the total, about 39,000 or 12% are "ever attended school" i.e., ever attended school by not enrolled in school anymore. The estimated number of drop out is a point estimate that lies between 28,000 and 49,000 within 95% confidence interval.

Table 5.3: Estimation of children aged 5-17 by schooling status

Schooling status	Estimated total	Standard Errors	95% confidence interval	Relative standard errors (%)
Currently attending school	243,848	23,178.1	197,764-289,932	9.5
Not yet schooling	37,498	6,221.9	25,060-49,935	16.6
Ever attended school	38,523	5,280.8	28,029-49,018	13.7

Comparison between age groups suggests the increase in the proportion of drop out by age: the older the children, the more likely they drop out from school. For age 18-24, for example, the proportion is almost 93% (compared to only 12% for age group 5-17).

Figure 5.2 shows that the estimated total children aged 5-17 who are not currently attending school by age group. The graph shows that children who are "not yet schooling" tend to decease by age group. In contrast, children who "ever attended school" (drop out) tend to increase by age: 2,060 for aged 5-11, 6,004 for 12-14 and 30,460 for aged 15-17.

Figure 5.3 shows that the main reason for children for being not yet schooling is "too young" and this is true for both boys and girls.

Figure 5.2: Proportion of children who are not yet schooling and ever attended school by age group (%)

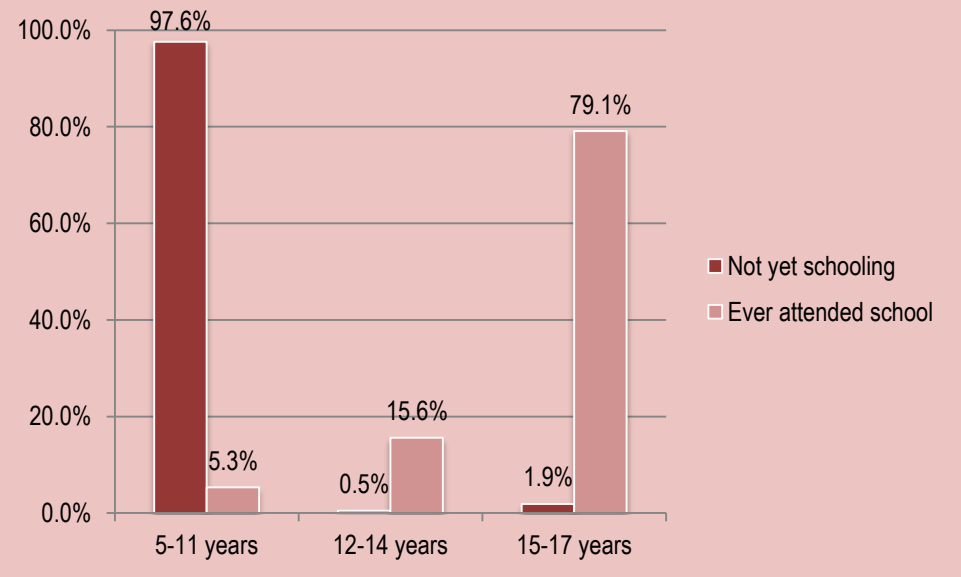


Figure 5.3: Proportion of children who are not currently in school because of too young by sex (%)

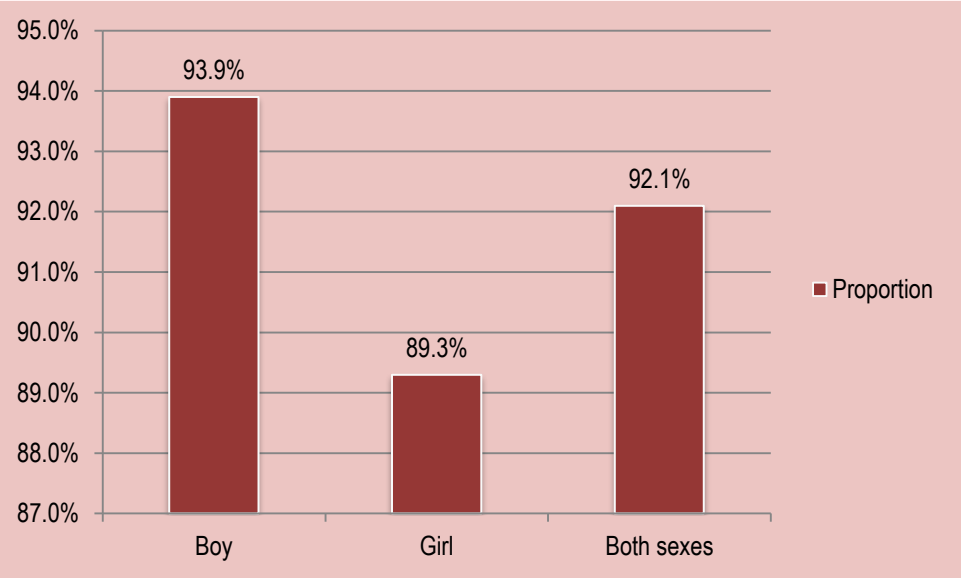


Table 5.4 shows the percentage of drop out --in the sense leaving school before completing a particular school level—by school level completed. It shows, among other, that 50.2% of population drop-out at Junior High School (as they have completed Elementary School); the proportion was 25.8% for drop out at Senior High School. It can be concluded that about 3 out four (76%) of the population drop out from Junior or Senior High schools. This is general true regardless of sex as shown in Figure 5.4.

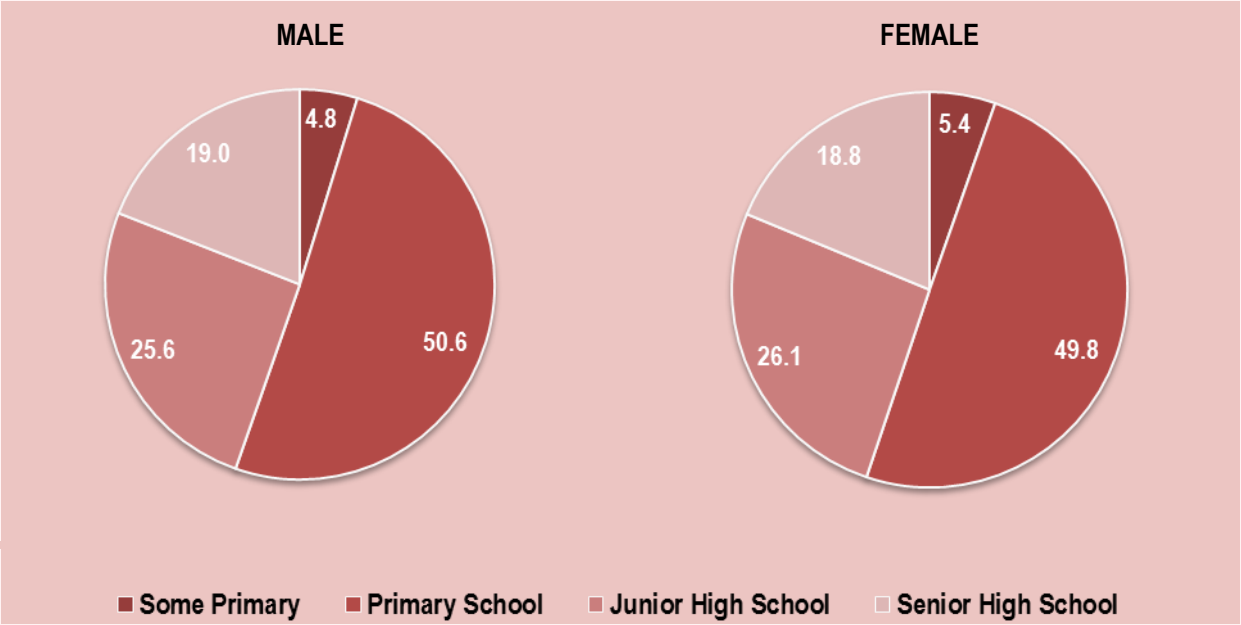
The proportion of drop out due that reason is almost 50%. This is true for both males and females (Figure 5.4). While there is no convincing explanation on this, some are inclined to speculate that the big proportion could have been associated with a "pull factor" of tin mining work that offers a reasonably big remuneration[24].

Table 5.4: Percentage of total drop out by school level completed

School level completed	Estimates	Standard Errors	95% confidence interval	Relative standard errors (%)
Some elementary school	5.1	0.8	3.6 - 7.0	16.8
Elementary school	50.2	2.8	44.8 - 55.7	5.5
Junior high school	25.8	1.7	22.6 - 29.3	6.6
Senior high school	18.9	2.4	14.6 - 24.1	12.7

[24] Revealed in a validation seminar (See note 2).

Figure 5.4: Proportion of Total Drop Out of Males and Females by School Level Completed (%) – 22 Sep 2015



Missing School

Table 5.5 shows that about 22,900 or 9% children aged 5-17 who are still in school were missed schooling in previous week at least one day. This is more or less true regardless of working status of children. As shown by Table 5.6, healthy reason "illness/injury/ disability" is the main reason for missing school for the children.

Table 5.5: Percentage of Children Aged 5-17 who are Still in Schooling by Days of Missing School in Previous Week

Days of missing school	All children	Children in Employment	Child Labour in Tin Mining
Total cases (N)			
0 (No missing)	220, 945	8,314	4,728
1	15,467	758	568
2	4,704	414	48
3+	2,732	n/a	n/a
Total	243,848	9,486	5,345
Proportion (%)			
0 (No missing)	90.6	87.6	88.5
1	6.3	8.0	10.6
2	1.9	4.4	0.9
3+	1.1	0.0	0.0
Total	100.0	100.0	100.0

Table 5.6: Estimated Children Aged 5-17 Who are Still in Schooling and Missing School in Previous Week by Main Reason

Reason	All children	Children in Employment	Child Labour in Informal Tin Mining
Total cases (N)			
Illness/injury/disability	17,272	829	464
Other	5,697	343	153
Total	22,969	1,172	617
Proportion (%)			
Illness/injury/disability	75.2	70.8	75.2
Other	24.8	29.2	24.8
Total	100.0	100.0	100.0

5.3 Employment Characteristics

Economic Sector

It is worth reiterating here that the survey is intended to capture child labour aged 5-17 in certain subsector that is informal tin mining. In order to achieve that objective, eligibility criteria of selection of households for in-depth interview has been predetermined prior to the survey; i.e., households with have at least one member employed in tin mining. While this strategy is considered as effective to achieve the objective mentioned above, it will be not in position to portrait a representative picture of employment by economic sector. The objective of this section is then limited to assess employment by economic sector other than informal tin mining[25].

As shown by Table 5.7, employed children in sector other than informal tin mining are mostly engage in "Non agriculture other than mining", "plantation" and "mining". The proportion in these three groups of economic sector covers more than 97% of the total employment. It might be worth noticing that thee are 1% of children aged 5-17 who work as "domestic paid workers.

For adult aged 5-17, employment also concentrating in the three groups of economic sector mentioned above. The three groups of economic sector cover about 80% of the employment in other than informal tin mining.

[25] For the tabulation of economic sector, employment in informal tin mining is ignored.

Table 5.7: Employment by Economic Sector Other Than Informal Tin Mining (%)

	Children aged 5-17	Adult aged 18+
Mining (other than informal tin mining)	13.9	19.5
Non agriculture other than mining	57.5	29.4
Plantation	26.0	31.5
Other subsector of agriculture	1.7	9.9
Public owned enterprise	0.0	0.2
Government	0.0	2.3
Non-government organization (NGO)	0.0	0.2
Household (paid domestic worker)	1.0	1.3
Others	0.0	5.8
Total	100.0	100.0

Hours of Work

Table 5.8 presents percentage distribution of employment by hours of work per week by age group in informal tin mining and other sectors/subsectors. For tin mining subsector the following points would be of interest:

- There is no case found for 0 working hour (temporarily not working) which is the majority for age group 5-11 who employed in sectors other than tin mining;
- for the youngest age group (5-11) children work mostly below 41 hours, either 1-14 hours or 15-40 hours with reasonably equal proportion; and
- hours of work in 1-14 interval tend to be less popular for older age groups; for age group 15-17 the proportion is only 6.5%.

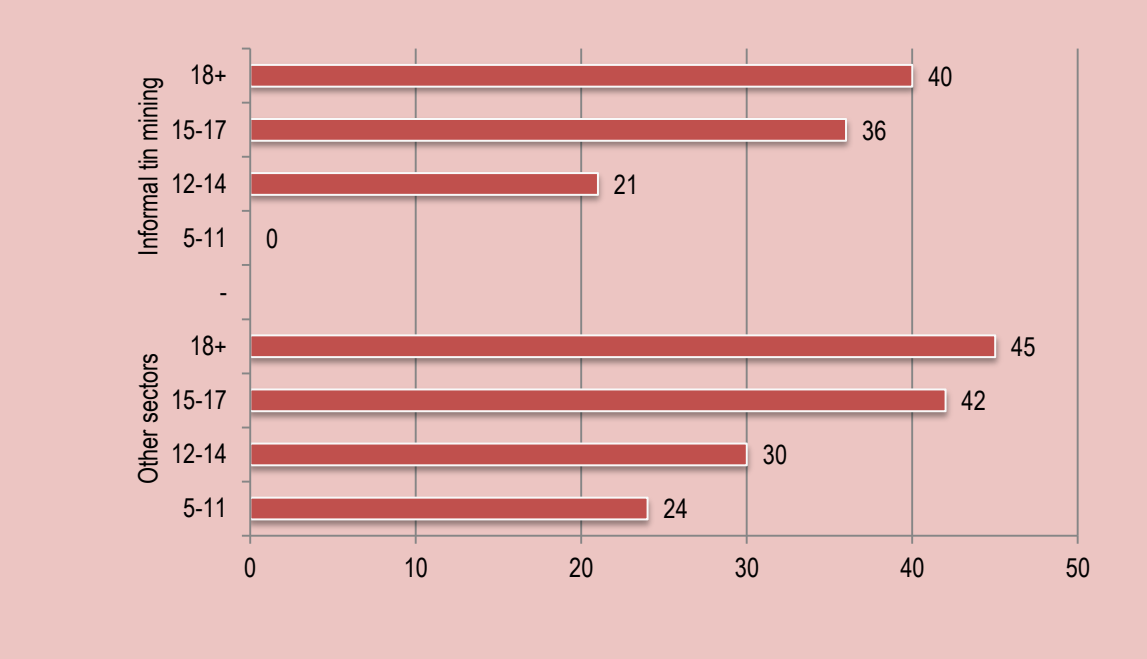
Graph 5.5 exhibits a concise summary of hours of work by age groups. As shown by the graph, for tin mining, the medians of hours of working are 45 hours for age group 18+ and 42 hours for age group 15-17. The last figure shows that 50% of child labour aged 15-17 work 36 hours or more in a week. Another point shown by the graph that might be of concern of many is that 50% of child labour in tin mining of aged 5-11 work 24 hours or more in a week.

Table 5.8: Working Hours Per Week for Employment in Informal Tin Mining and Others (%)

Age group (year)	0(*)	1-14	15-40	41+	Total
Informal Tin Mining					
5-11	0.0	50.8	49.2	0.0	100.0
12-14	0.0	22.8	34.6	42.6	100.0
15-17	0.6	6.5	31.7	61.3	100.0
18+	0.0	1.5	32.0	66.4	100.0

Age group (year)	0(*)	1-14	15-40	41+	Total
Total	0.0	2.2	32.1	65.7	100.0
Other Sectors/Subsectors					
5-11	58.9	41.1	0.0	0.0	100.0
12-14	7.1	30.4	24.8	37.8	100.0
15-17	3.1	14.9	43.2	38.9	100.0
18+	3.2	5.7	42.0	49.1	100.0
Total	3.6	6.4	41.6	48.4	100.0
(*) Temporarily not working					

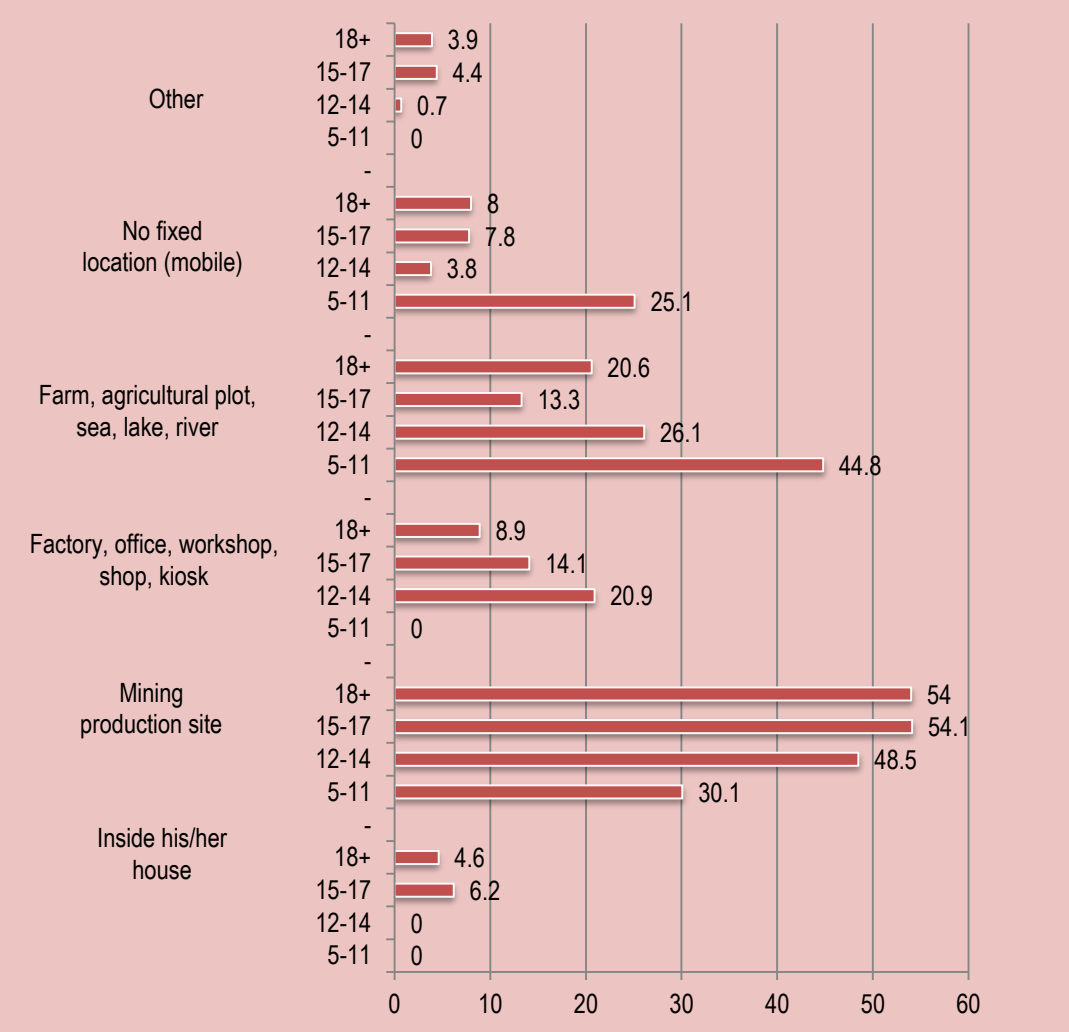
Figure 5.5: Median Working Hours



Working Place

The most popular working place for Babel employment is “mining production site” as shown by Graph 5.6. This is true for all age groups and understood given the importance of tin mining for Babel employment as previously discussed. What might be worth notice is that for youngest age group (5-11), the most popular working place is “Farm, agricultural lot area, sea, lake, river”. It seems no basis to hold a view that such a place is safer than “tin mining site” for young children.

Figure 5.6: Employment by Age Group and Working Place (%)



Working accidence

As shown by Graph 5.7, there is no case of working accidence reported for child labour aged 5-17 in tin mining. This is perhaps understood because children in the subsector generally engaged in "ngelimbang" (tin panning) which is relatively safer compared to that of other section of tin production.

For aged group 18+, there are about 20,000 cases of working accidence reported in tin mining. The number of case for the same age group is much smaller for employment in other sector other than tin mining. This probably signals unsafe working environment in tin mining sites even for adults.

Household Chores

Graph 5.8 shows that some children of aged 5-17 reportedly engaging in household chores. This is true regardless of working status of the children. For child labour in tin mining, the proportion of children who also engaging in in household is about 35%.

Table 5.8 shows that the median hours for household chores for the whole children is 4 hours; meaning, 50% of children work 4 hours or more in a week for that kind of activity. The median is lower for children in employment (4 hours) or child labour in tin mining (3 hours). Comparison between sexes shows that girls work longer than boys.

Figure 5.7: Estimated Reported Number of Cases of Working Accidence

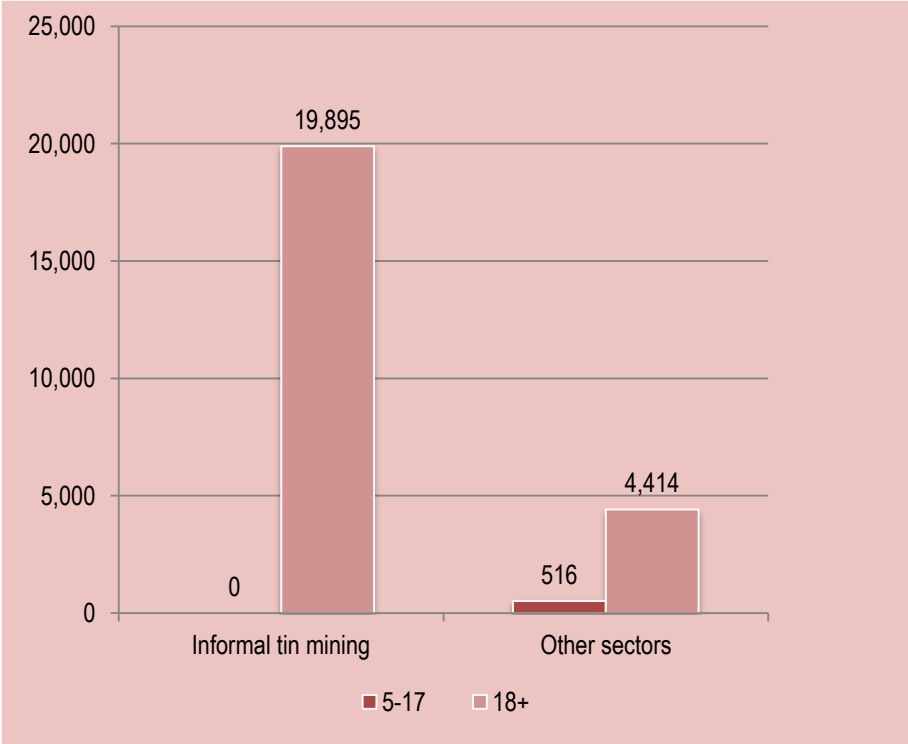


Figure 5.8: Proportion of Children Aged 5-17 who Did Household Chores (%)

Table 5.9: Children Aged 5-17 by Hours of Work/Week for Household Chores (%)

Hours of work	Sex			Children in employment	Children in informal tin mining
	Boys	Girls	Both sexes		
1-14	96.0	81.5	86.2	91.1	92.2
15-34	3.2	12.0	9.2	8.2	6.5
35+	0.8	6.6	4.7	0.7	1.2
Total	100.0	100.0	100.0	100.0	100.0
Median (hour)	3	5	4	3	2

5.4 Sex, Schooling Status and Children in Employment

As discussed in this and previous chapters, there are strong associations between sex, schooling status and working status for children: the likelihood for children to engage in employment is larger for boys than girls and for children who are not enrolled in school (anymore). This conclusion is reflected in a compact way in Table 5.10. The table shows, among others, the following points:

- Boys --controlled by age factor and assuming both boys and girls are currently in schooling-- are more likely (than girls) being in employment by 2.35 times as indicated by Odd Ratio (OR) of variable sex;
- "The effect" (likelihood) of "not in school" --controlled by age and for boys—on being in employment is 4.5 as compared to "In schooling);
- "The joint effect" (interaction) of sex (boys) and schooling status (in school) is 6.38.

The question that may be asked is that what would be the effect of sex on working status if both boys and girls are not in school. The answer would be about 15, the figure that can be derived by multiplication of OR sex (2.35) and OR of the interaction (6.38). Table 5.10 shows the figure. The table signals clearly that "the effect" of schooling status on likelihood being in employment is much more serious for boys (OR=24.5) than for girls (OR=4.2).

Table 5.10: Logistic regression model to estimate the association between sex, school and employment among children 5-17

	OR	SE	P-value	95%	CI
Age	1.48	0.07	0.000	1.35	1.63
Sex (Boy)	2.35	0.80	0.013	1.20	4.61
Currently school (Not in schooling)	4.15	2.33	0.013	1.36	12.68
Sex and school interaction (Boy and Not in schooling)	6.38	4.06	0.005	1.80	22.61

Table 5.11: Age-adjusted Odd Ratio on Employment

	OR	P-value	95%	CI
Boys V.S. Girls (both are Currently in school)	2.35	0.013	1.20	4.61
Boys V.S Girls (both are Currently in school)	15.02	0.000	4.59	49.22
Not in schooling" V.S "In Schooling" (Girls)	4.15	0.013	1.36	12.68
Not in schooling" V.S "In Schooling" (Boys)	26.46	0.000	13.36	52.41

Analysis using measurement probability might be easier to be comprehend than that of OR. Table 5.12 is presented to serve for the easiness. As shown by the table, as an example, the probability of boys who are not in schooling for being in employment is 45%.

Table 5.12: Age-adjusted Probability of Children Aged 5-14 for Being in Employment

Subpopulation	Prob	SE	P-value	95%	CI
Boys and currently in school	0.06	0.01	0.000	0.04	0.09
Boys and currently not in school	0.45	0.03	0.000	0.40	0.51
Girls and currently in school	0.03	0.01	0.001	0.01	0.05
Girls and currently not in school	0.10	0.04	0.009	0.02	0.18

5.5 Parents and Children Perception and Attitude on Education

As shown in Table 5.2, school participation rate of children in employment (including child labour in informal tin mining) is much lower than that of all children in general; i.e., 76.2 compared to 26.8%). The big different seems to be associated with parents and children perception on education. However, the structure questionnaire used survey is not designed to address the issue explicitly. Main reason for this is that questions on perception or attitude is regarded as too elusive to be captured in a structured questionnaire as that used in the survey.

While acknowledging the limitation of the questionnaire in this regard, there is a question or variable in the questionnaire that can be used to highlight the issue in question. The variable is on "the main reason for drop out" (Q. E10). This question is asked for population aged 5 who experienced drop out or leaving school before completing a certain school level such as primary school level (6 years to complete) or junior high school (3 years to complete). As earlier discussed, the term of drop out refers to that of leaving school at particular school level before completing that level.

Table 5.13 presents cross-tabulation of the variable with variable "relationship to head of household" (Q. C3). Note that, given the structure of the questionnaire, the term parents here loosely define as to include head of household (code 1 in variable "relationship with head of household), spouse (code 2); brother/sister (code 5), and parents/parent in law (code 9); on other side, the term children includes to son/daughter (code 3), step child (code 4), daughter or son in law (code 6), grandchild (code 7) and niece/nephew (code 8).

Table 5.13: Percentage Distribution of Reasons for Drop Out at Junior or Senior High School According to Parents, Children and Others

Main Reason	Parents	Children	Other family members	Total
No school/school too far	11.3	7.2	0.0	10.3
Cannot afford schooling	61.6	39.9	46.4	56.4
Poor in studies/not interested	10.9	34.0	26.5	16.4
To learn a job, work for pay	6.5	14.7	4.4	8.3
Other	9.7	4.2	22.7	8.6
Total	100.0	100.0	100.0	100.0

Table 5.13 shows percentage of economic reason ("cannot afford schooling") is the main reason for drop out according to both parents and children (regardless of age). What would be the concern issue here is that the proportions of "poor studies/not interested" and "to lean a job" or "work for pay" are much higher for children than for parents; i.e., 14.7% compared to 6.5% for the first and 8.1% compared to 2.1% for the second. This might suggest that of education is relatively less values for children than for parents.

The above comparison does not necessarily reflects a high value of education for parents (compared to that for children) is high as revealed in the validation seminar[26] . The participants of the seminar mostly agreed that parents in Babel province generally have low appreciation on children education and, in contrast, high appreciation on earning money. It revealed from the seminar that the parents is generally "protective" for primary school-age children (7-12) by not allowing the children to earn money but "less protective" for secondary school-age children (aged 13 or older) by allowing or even encouraging children to earn money and quit schooling. A participant of the seminar once quoted a typical parents massage to their children: "*Buat apa sekolah tinggi kalau akhirnya ngelimbang*" ("What is the point of having high education if eventually you will be a tin panning worker").

[26] The seminar was participated by 12 field coordinators orsupervisors of the survey in 13 December 2014.

Chapter 6 – Summary Conclusions, Lessons Learned and Ways Forward

6.1 Summary Conclusions

1) One main objectives of the survey is to estimate the magnitude of child workers in informal tin mining in Babel province of Indonesia. The estimation is derived from listing of all households in 30 selected clusters in three selected districts; namely, Bangka, Bangka Tengah and Belitung Timur districts. The results show, among others, that the total child labour aged 5-17 in informal tin mining in the province is about 6,300 and mostly of aged 15-17 (69%). The total is relatively big as it is equivalent to 5% of total children aged 5-17 or to 13% of total children in employment in the same age group. The results also show that child labour is almost all boys as girls share only 7% to the total.

2) The total number of 6,300 is a point estimate that lies between 4,500 and 8,000 of 95% confidence interval. The standard errors of the estimation is then about 900 or 14.2%. Such percentage; i.e., less than 20%, is generally viewed reflecting a reasonably accurate of estimation.

3) Almost all child labour employed in tin mining working in what so-called TI; that is, informal tin mining operated by individual households, not by a "formal" company. Their task in TI is almost exclusively "tin panning"; that is, collecting tin sand using a simple tool (pan and others) from residual materials produced from the final process of purifying tin mining. The materials are regarded as "residual" by the owner of tin mining because of poor contents of tin sand. Child labour in formal tin mining is highly exposed to a number of injury accidence as in formal tin mining is an open area that is normally surrounded by slippery land and dam-like big hole full with water.

4) Working hours of children in employment are longer for those who work in informal tin mining than those who work in other sector (subsector) regardless of age groups (5-11, 12-14, 15-17). For illustration, medians working hour for aged 15-17 are 42 hours/week in informal tin mining and 36 hours/week for those in other sectors (subsector).

5) This survey is also designed to assess schooling status and employment characteristics of children in employment. For that objective, about 1,200 households in 10 selected clusters --part of selected clusters for listing—are selected for interview[27]. The results show, among others, a strong negative association found between schooling status and working status: school participation rate for children

[27] As mentioned in eralier chapter, In order to increase the probability of capturing child labour, a selection criterium is applied; i.e.: all selected households are tin mining households in that they have at least one member who employed in tin mining.

aged 5-17 is almost 80% but less than 40% if the children are in employment. This is true amid situation where parents are generally "protective" for children at primarily schooling ages: parents generally do not permit their children leaving school to earn money as far as their aged 7-12, but "permissive" for older ages. This may also reflect that in Babel province, the policy of compulsory 9-years education is not fully effective.

6) A regression analysis confirms a strong association between working status of children aged 5-14 and schooling status. It shows, among others, that the probability of boys who are not in schooling of being in employment is 45%; for girls, the probability is much lower; that is, only 10%.

7) A validation seminar held by the end of field work of the survey reveals that children education is generally less valued by both parents and children. This might be one of the underlying factors for a relatively low participation school rate of child labour workers aged 5-17 compared to that of overall children aged 5-17.

6.2 Lessons Learned

8) The accuracy of estimation as mentioned in Point 2 above would have been largely associated with selection of cluster –instead of census block that usually used by BPS-Statistics Indonesia in a household survey— as a Primary Sampling Unit (PSU). As compared to census block, a cluster as such defined[28] can serve to provide a larger probability of capturing of child labour which is considered as a rare case.

9) The results of listing have been used not only for estimation of child labour and for developing sampling frame for subsequence and more extensive household interview, but also used when appropriate as given data to be filled in (pre-printed) in the questionnaire of the household interview. This obviously reduces the time used for interview[29]. Moreover, pre-printed has been reportedly improved consistency between the listing and depth-interview results.

6.3 Ways forward

10) Given points 2 and 7 presented above, it is advisable to take the methodology of the survey as a reference for a similar survey aimed primarily at estimating the magnitude of any concerned "rare" population. The major challenge would be the availability of external data that can be used for developing sampling frame; i.e., available at as smallest level of area as possible.

[28] As mentioned in Chapter 3, a cluster consists of 3-5 census blocks within a selected village. It is designed -- instead of census block—to serve as PSU to increase the probability of capturing the intended target population (i.e., child labour) which is considered as a rare case. A village, on other hand, is considered from too big and too vary in terms of its coverage treated as PSU.

[29] Just to reirate, this has been confirmed by all field suvervisors in a validation seminar held at Pangkal Pinang at December 13, 2014.

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On line information

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"Convention No. 182 on the worst forms of child labour, 1999: ILO website: www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C182

Other links

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Annexes

Annex 1: Listing form

HOUSEHOLD LISTING

SECTORAL SURVEY OF CHILD LABOUR IN INFORMAL TIN MINING IN INDONESIA - 2014

SECTION A. LOCATION IDENTITY		
1. Province	Bangka - Belitung Islands	☐☐
2. District		☐☐
3. Subdistrict		☐☐☐
4. Village		☐☐☐
5. Strata	1. Tin mining consentration 2. Other	☐
6. Sample code		☐☐☐
7. Cluster number		☐

SECTION B. FIELD WORKERS		
Enumerator		
1. Name		☐☐
2. Date of enumeration		☐☐☐☐☐☐
3. Signature		
Field supervisor		
4. Name		☐
5. Date of supervison		☐☐☐☐☐☐
6. Signature		

CONFIDENTIAL

All information collected in this survey is strictly confidential and will be used for statistical purposes only.

CONCEPTS AND DEFINITIONS

(1) The employed. The "employed" comprise all persons above a specific age who during a specified brief period, either one week or one day, were following categories of "self-employment" or "paid employment"
"Self-employment": persons who during the reference period performed some work –or "with an enterprise but not at work"-- for profit or family gain, in cash or in kind. Including in self-employment are: (1) unpaid family workers at work should be considered as in self-employment irrespective of the number of hours worked during the reference period, and (2) Employers, own-account workers and members of producers' cooperatives.

"Paid employment": persons who during the reference period performed some work --"with a job but not at work"-- for wage or salary, in cash or in kind

(2) Temporarily not working. Persons temporarily not at work because of illness or injury, holiday or vacation, strike or lockout, educational or training leave, maternity or parental leave, reduction in economic activity, temporary disorganization or suspension of work due to such reasons as bad weather, mechanical or electrical breakdown, or shortage of raw materials or fuels, or other temporary absence with or without leave should be considered as in paid employment provided they had a formal job attachment.

(3) Tin mining work: Any kind work to produce tin unwrought tin (including in tin panning using a simple and conventional tools)

(4) Employment status[1]:

a) Employer: a person who operates his or her own economic enterprise, or engages independently in a profession or trade, and hires one or more employees.

b) Own-account worker: a person who operates his or her own economic enterprise, or engages independently in a profession or trade, and hires no employees.

c) Employee: a person who works for a public or private employer and receives remuneration in wages, salary, commission, tips, piece-rates or pay in kind.

d) Unpaid family worker: usually a person who works without pay in an economic enterprise operated by a related person living in the same household. Where it is customary for young persons, in particular, to work without pay in an economic enterprise operated by a related person who does not live in the same household, the requirement of "living in the same household" may be eliminated.

e) Member of producers' cooperative: a person who is an active member of a producers' cooperative, regardless of the industry in which it is established. Where this group is not numerically important, it may be excluded from the classification, and members of producers' cooperatives should be classified under other headings, as appropriate.

f) Persons not classifiable by status: experienced workers whose status is unknown or inadequately described and unemployed persons not previously employed (i.e. new entrants).

[1] http://laborsta.ilo.org/applv8/data/icsee.html

SECTION C. HOUSEHOLD COMPOSITION AND CHARACTERISTICS OF HOUSEHOLD MEMBERS *The following questions should be asked of all usual members of the household. That is, of all persons who usually live and eat together in the same house or compound and share the same housekeeping arrangement. A person is counted as a household member if he/she lives here or has been absent for less than 6 months. Note that members of a household are not necessarily related (by blood/marriage) and not all those related persons living in the same house or compound are members of the same household.*	Census block code: ☐☐☐☐ Serial no. of household: ☐☐☐ Name of head of household :	Interview result code: ☐ 1 = Completed 2 = No household member at home/ no competent respondent 3 = Entire household absent for extended period of time 4 = Refused 5 = Other (specify).....

					FOR AGED 5 OR OLDER				
No.	CAN YOU PLEASE GIVE ME THE FULL NAMES OF ALL PERSONS WHO ARE PART OF THIS HOUSEHOLD, STARTING WITH THE HEAD OF THE HOUSEHOLD?	WHAT IS (NAME)'S RELATIONSHIP TO HEAD OF THE HOUSEHOLD? 01 = Household Head 02 = Spouse 03 = Son/Daughter 04 = Step child 05 = Brother/Sister 06 = Daughter-in-law/son-in-law 07 = Grandchild 08 = Niece/Nephew 09 = Parent/parent- in-law 10 = Servant (live-in) 11 = Other relative 12 = Non-relative	Mark the sex of (NAME) 1= Male 2= Female	HOW OLD WAS (NAME) AT (HIS/HER) LAST BIRTHDAY? *Record the age in completed years. Write 00 if less than one year of age. If age (C.5)<5 → Next member or STOP*	RUN BUSSINESS FOR PROFIT[2] OR DO ANY WORK FOR WAGE, COMISSION OR ANY PAYMENT IN KIND[3]? 1 = Yes → C.8 2 = No	EVEN THOUGH (NAME) DID NOT DO ANY OF THESE ACTIVITIES IN THE PAST 7 DAYS, DID (NAME) HAVE A JOB OR BUSINESS ACTIVITY, FROM WHICH HE/SHE WAS TERMPORARILY ABSENT AND TO WHICH HE/SHE WILL DEFINITELY RETURN? 1 = Yes 2 = No → *Next member or STOP*	RUN BUSINESS OR DO ANY WORK IN TIN MINING? 1 = Yes, TI[4] 2 = Yes, non TI 3 = No → *Next member or STOP*	IN RUNNING BUSINESS OR DOING WORK IN TIN MINING, WHAT IS EMPLOYMENT STATUS OF (NAME) IN TIN MINING WORK? 1 = Employer 2 = Own account workers 3 = Employee 4 = Casual or Freelance worker 5 = Unpaid family worker 6 = Other	IN DOING WORK IN TIN MINING, IS (NAME) PAID ON A TIME BASIS OR A PIECE-RATE BASIS? 1 = Mainly on time-basis 2 = Other
C.1	C.2	C.3	C.4	C.5	C.6	C.7	C.8	C.9	C.10
1.		☐☐	☐	☐☐	☐	☐	☐	☐	☐
2.		☐☐	☐	☐☐	☐	☐	☐	☐	☐
3.		☐☐	☐	☐☐	☐	☐	☐	☐	☐
4.		☐☐	☐	☐☐	☐	☐	☐	☐	☐
5.		☐☐	☐	☐☐	☐	☐	☐	☐	☐
6.		☐☐	☐	☐☐	☐	☐	☐	☐	☐
7.		☐☐	☐	☐☐	☐	☐	☐	☐	☐
8.		☐☐	☐	☐☐	☐	☐	☐	☐	☐
9.		☐☐	☐	☐☐	☐	☐	☐	☐	☐
10.		☐☐	☐	☐☐	☐	☐	☐	☐	☐

[2] Examples: selling things, making something for sales, repairing things for pay, taxi or other transport business, having a public phone shop, baber, commercial farming or fishing, etc.
[3] Examples: A regular job, causal or piece works for pay, work in exchange for food or housing.
[4] TI stands for "Tambang Inkonvensional" means Inconventional Mining

Annex 2: Individual questionnaire

INDIVIDUAL QUESTIONNAIRE

SECTORAL SURVEY OF CHILD LABOUR IN INFORMAL TIN MINING IN INDONESIA - 2014

CONFIDENTIAL

All information collected in this survey is strictly confidential and will be used for statistical purposes only.

SECTION A. LOCATION IDENTITY		
1. Province	Bangka - Belitung	☐☐
2. District		☐☐
3. Subdistrict		☐☐☐
4. Village		☐☐☐
5. Strata	1 = Mining consentration 2 = Other	☐
6. Sample code		☐☐☐
7. Cluster number		☐☐
8. Census block code		☐☐☐☐
9. Name of listing field worker		☐☐
10. Listing household number		☐☐☐
11. Name of head of household		
12. Interview result code	1 = Completed 2 = No household member at home/no competent respondent 3 = Entire household absent for extended period of time 4 = Refused 5 = Dwelling not found 6= Other (specify)	☐

SECTION B. FIELD WORKERS		
Interviewer		
1. Name		☐☐
2. Date of enumeration		☐☐☐☐☐☐
3. Signature		
Field supervisor		
4. Name		☐
5. Date of supervision		☐☐☐☐☐☐
6. Signature		
Note		

SECTION C. HOUSEHOLD COMPOSITION AND CHARACTERISTICS OF HOUSEHOLD MEMBERS (C.1-C.5 ARE PRINTED FROM HOUSEHOLD LISTING DATA)									
					For children aged less than 18 years of age				WHAT IS (NAME)'S MARITAL STATUS? 1= Single / never married 2=Married 3=Living together 4=Separated 5=Divorced 6=Widowed
No.	Name	Relationship to head of the household 01=Household Head 02=Spouse 03=Son/Daughter 04=Step child 05=Brother/Sister 06=Daughter-in-law/son-in-law 07=Grandchild 08=Niece/Nephew 09=Parent/parent-in-law 10=Servant (live-in) 11=Other relative 12=Non-relative	Sex 1=Male 2=Female	Age	IS (NAME)'S NATURAL MOTHER ALIVE? 1=Yes 2=No→C9 3=Don't know→C9	Write the ID number of (NAME)'s mother 00 *if mother does not live in this household and don't know*	IS (NAME)'S NATURAL FATHER ALIVE? 1=Yes 2=No→C11 3=Don't know→C11	Write the ID number of (NAME)'s father 00 *if father does not live in this household and don't know*	
C.1	C.2	C.3	C.4	C.5	C.6	C.7	C.8	C.9	C.10
1.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐
2.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐
3.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐
4.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐
5.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐
6.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐
7.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐
8.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐
9.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐
10.		☐☐	☐	☐☐	☐	☐☐	☐	☐☐	☐

	1st member	2nd member	3rd member	4th member	5th member
Serial number of intended respondent (C.1)	☐☐	☐☐	☐☐	☐☐	☐☐
Name of intended respondent (C.2)					
Serial no. of infomation provider for respondent (C.1)	☐☐	☐☐	☐☐	☐☐	☐☐
Name of information provider for respondent (C.2)					

SECTION D. MIGRATION (For all members of the household)					
1. WHERE WAS (NAME) BORN? 1= This district → **Section E** 2= Another district in this province 3= Another province 4= Another country *(If 2, name district; if 3, name province; if 4, name country)*	☐	☐	☐	☐	☐
2. IN WHAT YEAR DID (NAME) MOVE TO LIVE IN THIS DISTRCT? *(If Don't Know, write 0000)*	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
3. WHAT WAS (NAME)'S MAIN REASON FOR MOVING HERE? 1= Job transfer 5= Family moved 2= To look for work 6= Insecurity 3= School / training 7= End of insecurity 4= Marriage 8= Other	☐	☐	☐	☐	☐

SECTION E. LITERACY AND EDUCATION (For persons aged 5 years and over)					
1. CAN (NAME) READ AND WRITE WITH UNDERSTANDING IN INDONESIAN LANGUAGE? 1= Yes 2= No	☐	☐	☐	☐	☐
2. IS (NAME) ATTENDING SCHOOL OR PRE-SCHOOL DURING THE CURRENT SCHOOL YEAR? 1= Yes 2= No → **E.7**	☐	☐	☐	☐	☐
3. WHAT GRADE IS (NAME) CURRENTLY ATTENDING? 1= Elementary school 2= Junior high school 3= Senior high school 4= College/university 5= Higher degree 9= Don't Know	☐	☐	☐	☐	☐
4. DURING THE LAST 7 DAYS, DID (NAME) MISS ANY SCHOOL DAY? 1= Yes 2= No → **F.1**	☐	☐	☐	☐	☐
5. HOW MANY SCHOOL DAYS DID (NAME) MISS DURING THE LAST 7 DAYS?	☐☐	☐☐	☐☐	☐☐	☐☐
6. WHAT IS THE MAIN REASON WHY (NAME) DID NOT GO TO SCHOOL ON THOSE DAYS? 1= School vacation period 2= Teacher was absent 3= Bad weather conditions 4= To help in family business/farm 5= To help at home with household tasks 6= To work outside family business 7= Illness/ injury/ disability 8= Other (specify) To F.1	☐☐ ***All go to F.1***	☐☐ ***All go to F.1***	☐☐ ***All go to F.1***	☐☐ ***All go to F.1***	☐☐ ***All go to F.1***

7. HAS (NAME) EVER ATTENDED SCHOOL? 1= Yes → **E.9** 2= No	☐	☐	☐	☐	☐
8. WHAT IS THE MAIN REASON WHY (NAME) HAS NEVER ATTENDED SCHOOL? 01= Too young 02= Disabled/ illness 03= No school/school too far 04= Cannot afford schooling 05= Family did not allow schooling 06= Not interested in school 07= Education not considered valuable 08= School not safe 09= To learn a job 10= To work for pay 11= To help unpaid in family business/farm 12= To help at home with household tasks 13= Other (specify) To F.1	☐☐ ***All go to F.1***	☐☐ ***All go to F.1***	☐☐ ***All go to F.1***	☐☐ ***All go to F.1***	☐☐ ***All go to F.1***
9. WHAT IS THE HIGHEST LEVEL OF SCHOOL THAT (NAME) COMPLETED? 1= Pre-school/kindergarten/no class completed 2= Some elementary school 3= Elementary school 4= Junior high school 5= Senior high school 6= College/university/Higher degree -->F.1 9= Don't Know	☐	☐	☐	☐	☐
10. WHY DID (NAME) LEAVE SCHOOL? 01= Completed his/her schooling 02= Too old for school 03= Disabled/ illness 04= No school/school too far 05= Cannot afford schooling 06= Family did not allow schooling 07= Poor in studies/not interested 08= Education not considered valuable 09= School not safe 10= To learn a job 11= To work for pay 12= To help unpaid in family business/farm 13= To help at home with household tasks 14= Other (specify)	☐☐	☐☐	☐☐	☐☐	☐☐

SECTION F. CURRENT ACTIVITIES (For persons aged 5 years and over)					
DURING THE LAST 7 DAYS, DID (NAME) DO ANY OF THE FOLLOWING ACTIVITIES, EVEN IF ONLY FOR ONE HOUR?					
1. RUN OR DO ANY KIND OF BUSINESS, BIG OR SMALL, FOR YOURSELF OR WITH ONE OR MORE PARTNERS? *Examples: Commercial farming or fishing, collecting firewood or water mainly for sale, selling things, making things for sale, repairing things for pay, taxi or other transport business, having a legal or medical practice, performing in public, having a public phone shop, barber, shoe shining, etc* 1= Yes 2= No	☐	☐	☐	☐	☐
2. DO ANY WORK FOR A WAGE, SALARY, COMMISSION OR ANY PAYMENT IN KIND (EXCLUDING DOMESTIC WORK)? *Examples: A regular job, contract, casual or piece work for pay, work in exchange for food or housing* 1= Yes 2= No	☐	☐	☐	☐	☐
3. DO ANY WORK AS A DOMESTIC WORKER FOR A WAGE, SALARY OR ANY PAYMENT IN KIND? 1= Yes 2= No	☐	☐	☐	☐	☐

4. HELP, WITHOUT BEING PAID, IN ANY KIND OF BUSINESS RUN BY (NAME)'S HOUSEHOLD? *Examples: Help to sell things, make things for sale or exchange, doing the accounts, cleaning up for the business, etc.* 1= Yes 2= No	☐	☐	☐	☐	☐
ASK IF ALL ANSWERS TO F.1-F.4 = 2 (NO)					
5. EVEN THOUGH (NAME) DID NOT DO ANY OF THESE ACTIVITIES IN THE LAST 7 DAYS, DID (NAME) HAVE A JOB OR BUSINESS ACTIVITY, FROM WHICH HE/SHE WAS TERMPORARILY ABSENT AND TO WHICH HE/SHE WILL DEFINITELY RETURN? Note: The off-season for agricultural activities, or waiting for a new job to start, do not count as temporary absences 1= Yes 2= No	☐	☐	☐	☐	☐
6. WHAT WAS THE MAIN REASON WHY (NAME) WAS ABSENT FROM HIS/HER JOB OR BUSINESS IN THE LAST 7 DAYS? 01= Health reasons 02= Vacation leave 03= Caring for family/others 04= Maternity/paternity leave 05= Family/community obligations 06= Strike/stay-away/lockout 07= Problems with transport, equipment, … 08= Bad weather 09= Study or training leave 10= Unrest (violence) 11= Future job start 12= Seasonal work 13= Other reason (specify)	☐☐	☐☐	☐☐	☐☐	☐☐

SECTION G. CHARACTERISTICS OF THE MAIN JOB/ACTIVITY IN THE LAST 7 DAYS					
1. *FOR EMPLOYED PERSONS AGED 5 YEARS AND OVER* WHAT KIND OF WORK DOES (NAME) USUALLY DO IN THE MAIN JOB/BUSINESS THAT HE/SHE HAD IN THE LAST 7 DAYS? *Examples: tin miner, fisherman, rice farmer, motocycle driver, primary school teacher, market food seller (Record the title of the job if there is one)*	.....	.....	.....	.....	.....
2. WHAT ARE (NAME)'S MAIN TASKS OR DUTIES IN THIS WORK? *Examples: tin producing, tin panning; catch, sort, clean and pack fish; grow rice mainly for sale; drive a motocycle to transport passengers; teach children to read and write; cook and sell food on the market (Write a short description of the main tasks/duties)*	.....	.....	.....	.....	.....
3. WHAT IS THE NAME OF THE PLACE WHERE (NAME) WORKS? *Examples: Mr. Mahmud tin mining, Acong fisheries, Public elementary school; For government or large organizations give the name of the establishment, branch or division*	.....	.....	.....	.....	.....
4. WHAT GOODS ARE PRODUCED, OR WHAT SERVICES ARE PROVIDED AT (NAME)'S PLACE OF WORK? *Examples: tin ore, fresh fish and processed fish products, rice, public service, transportation services, education, cooking and serving meals*	.....	.....	.....	.....	.....

5. How many persons, including (NAME), work at this place of work? 1= Works alone 4= 10-19 2= 2-4 5= 20-49 3= 5-9 6= 50 or more	☐	☐	☐	☐	☐
6. Where does (NAME) mainly undertake his/her work? 01= Inside his/her house 02= Work space next to/in front of house 03= Mining production site 04= Factory, office, workshop, shop, kiosk, etc. away from the house 05= Farm, agricultural plot, sea, lake, river 06= Home or workplace of employer/client 07= Construction site 08= Market or bazaar stall 09= Street stall 10= No fixed location (mobile) 11= Other (specify)	☐☐	☐☐	☐☐	☐☐	☐☐
7. Does (NAME) work in the/a…? 1= Mining 2= Non agriculture other than mining 3= Plantation 4= Other subsector of agriculture 5= Public owned enterprise 6= Government 7= Non-government organization (NGO) 8= Household (Paid domestic worker) 9=Others (Name it)	☐	☐	☐	☐	☐
8. In this job/activity is (NAME) an … *READ* 1= Employer 2= Own account worker 3= Employee 4= Casual or freelance worker 5= Unpaid family worker 6= Other (specify)	☐ ***If (2, 3, 4 or 5) → G.20***	☐ ***If (2, 3, 4 or 5) → G.20***	☐ ***If (2, 3, 4 or 5) → G.20***	☐ ***If (2, 3, 4 or 5) → G.20***	☐ ***If (2, 3, 4 or 5) → G.20***
G.9 – G.18 For employees only (G.8 = 1)					
9. Does (NAME)'s employer contribute to any pension or retirement fund for him/her? 1= Yes 2= No 3= Don't know	☐	☐	☐	☐	☐
10. Does (NAME) benefit from paid annual leave? 1= Yes 2= No 3= Don't know	☐	☐	☐	☐	☐
11. Would (NAME) get paid sick leave in case of illness or injury? 1= Yes 2= No 3= Don't know	☐	☐	☐	☐	☐
12. Is (NAME) employed on the basis of a written contract or an oral agreement? 1= Written contract 2= Oral agreement 3= Don't know	☐	☐	☐	☐	☐
13. Is the contract or agreement of…? *READ* 1= Limited duration 2= Unlimited duration → G.166 3= Unspecified duration → G.15 4= Don't know → G.16	☐	☐	☐	☐	☐
14. What is the duration of the contract or agreement? 1= Daily agreements 2= More than a day but < 1 month 3= 1 month to < 3 months 4= 3 months to < 6 months 5= 6 month to < 12 months 6= 12 months or more	☐	☐	☐	☐	☐

15. WHY IS THE CONTRACT OR AGREEMENT OF LIMITED/UNSPECIFIED DURATION? 1= On-the job training, internship 2= Probation period 3= Seasonal work 4= Occasional/daily work 5= Public employment programme 6= Work as a replacement/substitute 7= Work for a service or specific task 8= Chain contract 9= Other (specify)	☐	☐	☐	☐	☐
16. ON THIS JOB, IS (NAME) MEMBER OF A TRADE UNION? 1= Yes 2= No->G.19 3= Don't know	☐	☐	☐	☐	☐
17. DOES (NAME) PAY FEE FOR THE TRADE UNION? 1= Yes 2= No 3= Don't know	☐	☐	☐	☐	☐
18. IS THE TRADE UNION RECOGNIZED BY THE EMPLOYER? 1= Yes 2= No 3= Don't know	☐	☐	☐	☐	☐
G.19 FOR ALL EMPLOYED PERSONS					
19. HOW LONG HAS (NAME) WORKED FOR THIS EMPLOYER/IN THIS BUSINESS OR ACTIVITY? 1= Less than 3 months 2= 3 months to < 6 months 3= 6 months to < 12 months 4= 1 year to < 3 years 5= 3 years to < 5 years 6= 5 years to < 10 years 7= 10 years or more	☐	☐	☐	☐	☐
G.20 – G.23 INCOME FROM PAID EMPLOYMENT FOR EMPLOYEES ONLY (G.8= 1)					
20. IS (NAME) PAID ON A TIME BASIS OR A PIECE-RATE BASIS? 1= Time-basis 2= Other (specify)	☐	☐	☐	☐	☐
21. HOW MUCH DID (NAME) EARN THE LAST TIME HE/SHE WAS PAID IN HIS/HER MAIN JOB/ACTIVITY –IN CASH AND IN-KIND (FOOD, CLOTHING, DRINKS, HOUSING, ETC)? *For payments in kind and services, record the estimated value (in Indonesian Rupiah)*	.....	.....	.....	.....	.....
22. WHAT PERIOD DID THIS COVER? 1= Last month 2= Last week 3= Last day 4= Other period (specify)	☐	☐	☐	☐	☐
23. APPROXIMATELY HOW MANY HOURS DID (NAME) WORK DURING PERIOD REFER TO IN I.22? ***All go to → H.1***	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐
G.24 – G.25 INCOME FROM SELF-EMPLOYMENT FOR EMPLOYERS AND OWN-ACCOUNT WORKERS (G.8= 2, 3)					
24. LAST MONTH, HOW MUCH DID (NAME) EARN IN HIS/HER BUSINESS ACTIVITY, IN CASH OR IN KIND, AFTER DEDUCTING EXPENSES?	.....	.....	.....	.....	.....
25 HOW MANY MONTHS DID THIS BUSINESS RUN IN THE LAST 12 MONTHS? *(Enter the number of months)* INCOME IN THE LAST 12 MONTHS? In cash (in Indonesian Rupiah) In kind (in Indonesian Rupiah)	☐☐	☐☐	☐☐	☐☐	☐☐ ....

SECTION H. HOURS OF WORK					
H.1 – H.2 For employed persons aged 5 years and over					
1. HOW MANY HOURS DOES (NAME) USUALLY WORK PER WEEK…?	☐☐	☐☐	☐☐	☐☐	☐☐
2. THINKING ABOUT EACH DAY IN THE LAST 7 DAYS, HOW MANY HOURS DID (NAME) ACTUALLY WORK ON… *Interviewer start with the day before the day of the interview, and work your way backwards.*	☐☐	☐☐	☐☐	☐☐	☐☐
H.3 For employed children aged 5-17 years					
3. DURING THE LAST 7 DAYS WHEN DID (NAME) USUALLY CARRY OUT THIS WORK? 1= During the day (6 am– 6 pm) 2= In the evening/night (after 6 pm) 3= During the day and evening 4= On the week-end 5= Sometimes during the day, sometimes in the evening	☐	☐	☐	☐	☐

SECTION I. UNDEREMPLOYMENT (For employed persons aged 5 years and over)					
1. IN THE LAST 7 DAYS, WOULD (NAME) HAVE LIKED TO WORK ADDITIONAL HOURS THAN HE/SHE WORKED, PROVIDED THE EXTRA HOURS HAD BEEN PAID? 1= Yes 2= No → **I.3**	☐	☐	☐	☐	☐
2. HOW MANY ADDITIONAL HOURS COULD (NAME) HAVE WORKED IN THE LAST 7 DAYS? *(Enter number of hours)*	☐☐	☐☐	☐☐	☐☐	☐☐
3. WOULD (NAME) LIKE TO CHANGE HIS/HER CURRENT EMPLOYMENT SITUATION? 1= Yes 2= No → **J.1**	☐	☐	☐	☐	☐
4. WHAT IS THE MAIN REASON WHY (NAME) WOULD LIKE TO CHANGE HIS/HER EMPLOYMENT SITUATION? 1= Present job is temporary 2= Fear of losing present job 3= To work more hours (paid at current rate) 4= To have a better paid job/activity (higher pay per hour) 5= To work less hours (with a reduction in pay) 6= To make better use of skills 7= To improve working conditions 8= Other (specify)	☐	☐	☐	☐	☐
5. IN THE LAST 30 DAYS, DID (NAME) LOOK FOR ANOTHER JOB/ACTIVITY TO REPLACE HIS/HER CURRENT ONE(S)? 1= Yes 2= No	☐	☐	☐	☐	☐
6. IN THE LAST 30 DAYS, DID (NAME) LOOK FOR EXTRA WORK IN ADDITION TO HIS/HER CURRENT ONE(S)? 1= Yes 2= No → **J.1**	☐	☐	☐	☐	☐

7. WHAT DID (NAME) DO TO FIND ANOTHER /EXTRA WORK? 1= Registered at a public or private employment exchange 2= Applied to current or other employers 3= Checked at current or other work sites, farms, factory gates, markets, or other assembly places 4= Placed or answered newspaper advertisements 5= Sought assistance of friends or relatives 6= Looked for land, building, machinery or equipment to establish or improve his/her own enterprise 7= Arranged for initial or additional financial resources 8= Other (specify)	☐	☐	☐	☐	☐

SECTION J. JOB SEARCH (For persons not employed in the last 7 days aged 5 years and over)					
1. IN THE LAST 30 DAYS, DID (NAME) LOOK FOR A JOB OR TRY TO START A BUSINESS? 1= Yes 2= No → **J.3**	☐	☐	☐	☐	☐
2. WHAT DID (NAME) DO IN THE LAST 30 DAYS TO FIND A JOB OR START A BUSINESS? 1= Registered at a public or private employment center 2= Applied to current or other employers 3= Checked at work sites, farms, factory gates, markets 4= Waited on the street for casual work 5= Placed/answered advertisements 6= Asked friends or relatives 7= Looked for land, building, equipment 8= Arranged for financial resources 9= Other (specify) GO TO J.6	☐ ***All go to → J.6***	☐ ***All go to → J.6***	☐ ***All go to → J.6***	☐ ***All go to → J.6***	☐ ***All go to → J.6***
3. DID (NAME) WANT TO WORK IN THE LAST 7 DAYS? 1= Yes 2= No → **J.9**	☐	☐	☐	☐	☐
4. WHAT WAS THE MAIN REASON WHY (NAME) DID NOT SEEK WORK OR TRY TO START A BUSINESS IN THE LAST 30 DAYS? 01= Found work but waiting to start → **J.6** 02= Awaiting replies to earlier enquiries → **J.7** 03= Awaiting for the season to start → **J.7** 04= Attended school/training courses → **J.7** 05= Family responsibilities or housework → **J.7** 06= Illness, injury or disability → **J.7** 07= Too young/old to find work → **J.7** 08= Does not know where to look for work → **J.7** 09= Lacks employers' requirements (skills, experience, qualifications) 10= No jobs available in the area 11= Other reasons (specify)	☐☐	☐☐	☐☐	☐☐	☐☐
5. DURING THE LAST 12 MONTHS, DID (NAME) DO ANYTHING TO LOOK FOR WORK OR START A BUSINESS? 1= Yes 2= No ***All go to → J.7***	☐	☐	☐	☐	☐
6. HOW LONG HAS (NAME) BEEN WITHOUT WORK AND TRYING TO FIND A JOB OR START A BUSINESS? 1= Less than 3 months 2= 3 mo= to < 6 months 3= 6 mo= to < 12 months 4= 1 year to < 3 years 5= 3 years to < 5 years 6= 5 years or more 7= Don't know	☐	☐	☐	☐	☐
7. IF AN OPPORTUNITY TO WORK HAD EXISTED, WOULD (NAME) HAD BEEN ABLE TO START WORK IN THE LAST 7 DAYS? 1= Yes → K.1 2= No	☐	☐	☐	☐	☐

8. WHAT WAS THE MAIN REASON WHY (NAME) WAS NOT AVAILABLE TO WORK IN THE LAST 7 DAYS? 1= In school/training 2= Housework/ family responsibilities 3= Illness, injury, disability 4= Retired, too old for work 5= Too young to work 6= Off-season 7= No desire to work 8= Other (specify) GO TO K.1	☐ *All go to → K.1*	☐ *All go to → K.1*	☐ *All go to → K.1*	☐ *All go to → K.1*	☐ *All go to → K.1*
9. WHAT WAS THE MAIN REASON WHY (NAME) DID NOT WANT TO WORK? 1= In school/training 2= Housework/family responsibilities 3= Illness, injury, disability 4= Retired, too old for work 5= Too young to work 6= Off-season 7= No desire to work 8= Other (specify) GO TO K.1	☐ *All go to → K.1*	☐ *All go to → K.1*	☐ *All go to → K.1*	☐ *All go to → K.1*	☐ *All go to → K.1*

SECTION K. OCCUPATIONAL INJURIES WITHIN THE LAST 12 MONTHS (For persons aged 5 years and over)					
NOW I WOULD LIKE TO ASK YOU ABOUT ANY ACCIDENTS MAY HAVE HAD WHILE WORKING IN THE LAST 12 MONTHS THAT IS SINCE [MONTH/YEAR]…					
1. IN THE LAST 12 MONTHS, WAS (NAME) HURT IN ANY ACCIDENT WHILE WORKING THAT CAUSED HIM/HER INJURY OR ILLNESS? *(Include accidents that took place whilecommuting to/from work)* 1= Yes 2= No → **L.1**	☐	☐	☐	☐	☐
2. DID ANY OF THE INJURIES RECEIVED IN THE LAST 12 MONTHS RESULT IN (NAME) BEING ABSENT FROM WORK/ SCHOOL, OR UNABLE TO WORK/ATTEND SCHOOL, FOR AT LEAST ONE DAY, APART FROM THE DAY OF THE ACCIDENT? 1= Yes → **K.4** 2= No	☐	☐	☐	☐	☐
3. DID THE INJURIES SERIOUSLY RESTRICT (NAME)'S WORK OR ACTIVITIES EVEN THOUGH (NAME) WAS NOT ABSENT FROM WORK OR UNABLE TO WORK? 1= Yes 2= No ***All go to → L.1***	☐	☐	☐	☐	☐
4. HOW MANY OF THESE INJURIES (WITH LOST TIME) DID (NAME) HAVE IN THE LAST 12 MONTHS? *(record number of accidents)*	☐☐	☐☐	☐☐	☐☐	☐☐
5. THINKING ABOUT (THIS WORK ACCIDENT OR THE MOST SERIOUS WORK ACCIDENT), WHAT TYPE OF INJURY DID (NAME) RECEIVE? *Code the most severe injury* 1= Superficial injury 2= Fracture 3= Dislocation, sprain, strain 4= Amputation 5= Concussion, internal injury 6= Burn, corrosion, scald, frostbite 7= Acute poisoning or infection 8= Other injury (specify)	☐	☐	☐	☐	☐
6. WHAT KIND OF WORK WAS (NAME) DOING WHEN THIS ACCIDENT HAPPENS? 1= Current main job → K.10 2= Current secondary job → K.10 3= Other job (specify occupation) *(If "Other" record the title of the job if there is one)*	☐	☐	☐	☐	☐

7. WHAT WERE (NAME)'S MAIN TASKS OR DUTIES IN THIS JOB/ACTIVITY? *(Write a short description of the main tasks/duties)*	…… …… ……	…… …… ……	…… …… ……	…… …… ……	…… …… ……
8. WHAT IS THE NAME OF THE PLACE WHERE (NAME) WORKED WHEN THE ACCIDENT HAPPENED?	…… …… ……	…… …… ……	…… …… ……	…… …… ……	…… …… ……
9. WHAT GOODS ARE PRODUCED, OR WHAT SERVICES ARE PROVIDED AT THAT PLACE OF WORK?	…… …… ……	…… …… ……	…… …… ……	…… …… ……	…… …… ……
10. HOW MANY DAYS WAS (NAME) AWAY FROM WORK OR UNABLE TO WORK BECAUSE OF THE INJURY? *Write the number of calendar days.* *If Don't know, write 98.* *If (NAME) expects never to return to work due to the injury, write 99.*	☐☐	☐☐	☐☐	☐☐	☐☐
11. IS (NAME) EXPOSED TO ANY OF THE FOLLOWING HAZARDS AT WORK?	1= Yes 2= No	1= Yes 2= No	1= Yes 2= No	1= Yes 2= No	1= Yes 2= No
A. Land sliding	☐	☐	☐	☐	☐
B. Work at slippery land	☐	☐	☐	☐	☐
C. Work in sea/water/lake/pond/river	☐	☐	☐	☐	☐
D. Work underground	☐	☐	☐	☐	☐
E. Dust, fumes	☐	☐	☐	☐	☐
F. Loud noise or vibration	☐	☐	☐	☐	☐
G. Fire, gas, flames	☐	☐	☐	☐	☐
H. Extreme cold or heat	☐	☐	☐	☐	☐
I. Dangerous tools (knives etc)	☐	☐	☐	☐	☐
J. Work at heights	☐	☐	☐	☐	☐
K. Workplace too dark or confined	☐	☐	☐	☐	☐
L. Insufficient ventilation	☐	☐	☐	☐	☐
M. Chemicals (pesticides, glues, etc.)	☐	☐	☐	☐	☐
N. Explosives	☐	☐	☐	☐	☐
O. Other things (specify)	☐	☐	☐	☐	☐
12. IS (NAME) EVER BEEN SUBJECTED TO THE FOLLOWING AT WORK?	1= Yes 2= No	1= Yes 2= No	1= Yes 2= No	1= Yes 2= No	1= Yes 2= No

A. Constantly shouted at	☐	☐	☐	☐	☐
B. Repeatedly insulted	☐	☐	☐	☐	☐
C. Beaten /physically hurt	☐	☐	☐	☐	☐
D. Sexually abused (touched or done things to you that you did not want)	☐	☐	☐	☐	☐
E. Other (specify)	☐	☐	☐	☐	☐

SECTION L. OTHER ACTIVITIES (For perons aged 5 and over)					
DURING THE LAST 7 DAYS, DID (NAME) DO ANY OF THE TASKS LISTED BELOW FOR THE BENEFIT OF THIS HOUSEHOLD? (L.1-L.10) *If Yes for a task, ask:* DURING THE LAST 7 DAYS, HOW MANY HOURS DID (NAME) SPEND ON THIS ACTIVITY? *Write the duration in hours if (NAME) did the activities or 00 if did not.*					
1. Cooking	☐☐	☐☐	☐☐	☐☐	☐☐
2. Washing clothes	☐☐	☐☐	☐☐	☐☐	☐☐
3. Washing dishes	☐☐	☐☐	☐☐	☐☐	☐☐
4. Cleaning house/yard	☐☐	☐☐	☐☐	☐☐	☐☐
5. Cleaning utensils	☐☐	☐☐	☐☐	☐☐	☐☐
6. Repairing any household equipment or vehicles	☐☐	☐☐	☐☐	☐☐	☐☐
7. Caring for children	☐☐	☐☐	☐☐	☐☐	☐☐
8. Caring old/sick person	☐☐	☐☐	☐☐	☐☐	☐☐
9. Other household tasks (specify)	☐☐	☐☐	☐☐	☐☐	☐☐

THANK YOU VERY MUCH FOR THE BEST COOPERATION!