Incorporating child labour, poor working conditions and other labour issues in artisanal and small-scale gold mining (ASGM) in local development programmes: A pilot study in Labo, Camarines Norte

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Abbreviations

4Ps	Pantawid Pamilyang Pilipino Programme
ALS	Alternative Learning System
ASGM	Artisanal and Small-Scale Gold Mining
BSP	Bangko Sentral ng Pilipinas
CBMS	Community-Based Monitoring System
CCT	Conditional Cash Transfer
DENR	Department of Environment and Natural Resources
DOLE	Department of Labor and Employment
DSWD	Department of Social Welfare and Development
EMB	Environmental Management Bureau
EO	Executive Order
GCM	Gravitation Concentration Method
HRW	Human Rights Watch
ILO	International Labour Organization
IPEC	International Programme on the Elimination of Child Labour
IOHSD	Institute for Occupational Health and Safety and Development
LGUs	Local Government Units
LSM	Large-Scale Mining
MGB	Mines and Geosciences Bureau
MLGUs	Municipal Local Government Units
OSHS	Occupational Safety and Health Standards
P/CRMB	Provincial/City Mining Regulatory Board
PhilHealth	Philippine Health Insurance Corporation
PMRB	Provincial Mining Regulatory Board
PPACL	Philippine Programme Against Child Labour
PPE	Personal Protective Equipment
PSA	Philippine Statistics Authority
PSSM	People's Small-Scale Mining
PSSMP	People's Small-Scale Mining Programme
RA	Republic Act
SHIELD	Strategic Helpdesks for Information, Education, Livelihood and other Developmental Interventions
SPED	Special Education
SSM	Small-Scale Mining
UNITAR	United Nations Institute for Training and Research
WFCL	Worst Forms of Child Labour

Incorporating child labour, poor working conditions and other labour issues in artisanal and small-scale gold mining (ASGM) in local development programmes: A pilot study in Labo, Camarines Norte[1]

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EXECUTIVE SUMMARY

Children involved in labour are often subject to exploitation because of the environment and condition of the work they engage in (Meljeteig, 1999; Ullen and Eck, 2011) that seriously affect their growth and development (Srivastava, 2011).

Globally, child labour estimates stand at 215 million, more than half – 115 million are still engaged in hazardous work (De Castro, 2010). In this light, agriculture is the most common and oldest child occupation worldwide (Leinberger-Jabari, Parker and Oberg, 2005; Srivastava, 2011). Subsequently, in the Philippines, the 2001 survey conducted by the Philippine Statistics Authority (PSA) shows that there are 4.1 million child workers aged 5 to 17 years old ("Children of the Philippines: How many are they?," 2001).

For many years, government and non-government agencies from around the world sought to solve the pressing issue of child labour (Osment, 2014) and education is still known to be the primary key (Grisewood, Brand, Abbassi, Ruiz, and Walker, 2008). No country has successfully ended child labour without first making education compulsory (Bhat, 2010). These working children have either never been to school, have dropped out, or are trying to combine both school and work. The reasons for this are primarily poverty, social exclusion and lack of

[1]This work was carried out by the CBMS Network Office as part of the **CBMS-ILO Project:** Incorporating Child Labour, Poor Working Conditions and other Labour Issues in Artisanal and Small-Scale Gold Mining (ASGM) in Local Development Programmes: A Pilot Study in Labo, Camarines Norte.

access to free public education of good quality (Del Rosario & Bonga, 2000; Sakellariou and Lall, 2000b).

In the Philippines, with the initiatives of the Department of Labor and Employment (DOLE), aims to pursue a "Batang Malaya: Child Labour Free Philippines" by the end of 2020. This is materialized through the Philippine Programme Against Child Labour (PPACL) that agreed to achieve these five goals namely: (a) functional multi-level information system established; (b) strategic partnership institutionalized and advocacy and action at all levels intensified; (c) access to quality and integrated services improved; (d) child labour agenda in development policies and programmes at all levels mainstreamed; and (e) strengthened enforcement and compliance with relevant laws and policies.

1. STATE OF ARTISANAL AND SMALL-SCALE GOLD MINING IN THE PHILIPPINES

In the Philippines, the mining industry is generally divided into: (a) large-scale; and (b) small-scale mining (SSM). Large-scale mining (LSM) is industrially or skillfully run and mechanized while SSM relies solely on manual labour using simple methods and equipment.

Small-scale gold mining occurs in over 30 provinces in the Philippines and it continues to be a significant source of income for many poor, rural communities (International Labour Organization-International Programme on the Elimination of Child Labour (ILO-IPEC), 2003). One of these provinces is Camarines Norte, which is located within the northern part of the Bicol region. The province's economy lies in agricultural production and at the same time in its mining industry with valuable metals such as gold, silver and copper as its main products (ILO, 2005). Due to the onset of climate change, the province became susceptible to strong typhoons that brought flooding and landslides in the area that pushed the locals to opt for SSM rather than farming for their means of livelihood (Rimando, 2017). Another reason why there is a shift from agriculture to SSM is because of the seasonal nature of agriculture and the inability to rely solely on an income from it year round (Rand, 2010).

Camarines Norte houses the well-known Jose Panganiban-Labo-Paracale Gold Mining Belt where there are over 5,000 estimated small-scale miners who take part in the production of gold (ILO-IPEC, 2003). A study conducted by Mones (2017) in two separate towns in Camarines Norte showed that: (a) underground tunnel; and (b) compressor are the types of mining frequently practiced in the province. According to Kippenberg (2015), the municipalities of Labo and Paracale specifically practice compressor mining in which miners dive into an open excavation that could be 7–10 meters deep and 2 meters wide while receiving air from a tube attached to a diesel-run compressor at the surface (O'Driscoll, 2017).

The main reason why families engage in SSM activities is poverty (Caymo, 2016; Huesca, 2013; Lahiri-Dutt, 2008; Rand, 2010). Apart from this are: lack of opportunities and skills from mining to other forms of livelihood (ILO-IPEC, 2003), lack of formal education and trainings to compete for employment opportunities (Bugnosen, 2001), quick cash, and it not needing cash capital (Huesca, 2013).

Mining has long been an issue both to the environment and to the local community. Due to the unregulated nature of this sector, the most notable environmental degradations are soil erosion, erosion and deforestation, biodiversity loss and water pollution, and river damage (Israel & Asirot, 2003; Leung & Lu, 2016). At the same time, mining also endangers the community through employment of children (Kippenberg, 2015), contamination of food chains, healthy child development (Lahiri-Dutt, 2008), and a wide range of health risks caused by the rampant use of mercury in the mining process (Køster-Rasmussen et al., 2016).

1.1 Child labour in artisanal small-scale gold mining in the Philippines

Children engaging in SSM could be adversely affected in terms of their school participation and health among others. A case study conducted by ILO-IPEC (2003) illustrates that, the mining and quarrying sector employed an estimated 17,980 children between 5-17 years old, who were subjected to daily hazards such as noise, high temperature/humidity, inadequate illumination, slip/fall hazards, as well as exposure to dust and chemical hazards.

In addition, the study stated that the two main reasons why children engage in mining is firstly because mining has been a family business where children are introduced in this kind of livelihood since they were young. Secondly, households with low income greatly depend on the financial contribution of their child/children.

In terms of school attendance, the study showed that from the estimated 400 child labourers in the selected SSM sites, over 31 per cent do not go to school, while others are yielding a poor educational experience and a poor scholastic outcome. This is the result of combining both the demands of work and school (ILO-IPEC, 2003; Kuramoto, 2001).

Numerous literatures have explicated clearly that education, of good quality, is the key to reduce child labour (Grisewood et al., 2008; Lovejoy, 1908). The links between child labour and education are clear. Children with no access to education have little alternative but to enter the labour market, where they are often forced to work in dangerous and exploitative condition (Kezar, Frank, Lester

and Yang, 2008; Sakurai, 2007). Several literature shows that the reasons for this are primarily poverty, social exclusion and lack of access to free public education of good quality (Johansson, 2009; Sakellariou & Lall, 2000b). Since the family lacks financially, the family may depend on the contribution a working child to the household income, and place more importance on that income than on education (Betcherman et al., 2004; Bhat, 2010; Rufino, 2015).

1.2 Exposures and risks in artisanal small-scale gold mining

As stated above, small-scale gold mining relies heavily on manual labour with the use of simple tools. Furthermore, SSM industry in the Philippines is known for its use of mercury in extracting gold or amalgamation.

Children who begin working in mines at an early age, often alongside their older family members, put their own safety and health at risk. Moreover, young age makes these children more vulnerable to the ill effects in such work environment as their body is still developing its full potential. In addition, most children working in the mining sector often have limited, and sometimes incorrect, information regarding the risks of handling mercury (Kippenberg, 2015). Some cover their mouths with their shirts when burning the amalgam—a measure that does not reduce the risk.

A study conducted by the Human Rights Watch (HRW) (2015) in Camarines Norte showed that children who engage in mining develops a skin condition, which they locally call “Rambo-rambo”, after being soaked in the mercury-polluted rivers for a number of hours. Aside from being exposed in mercury-polluted bodies of water, the study also observed that the practice of burning mercury to separate the gold from the ore, or amalgamation, is usually done at home wherein it is processed by women, on occasion pregnant and children (Kippenberg, 2015; Kuramoto, 2001). The process of amalgamation releases vapour from the mercury and are then inhaled by the family. This exposure causes damage to the developing central nervous system of the children, even babies, which results to neurological damage (Counter, Buchanan, Ortega, & Laurell, 2002). Table 1 are the common mining and quarrying tasks, hazards and potential sequences.

1.3 Protective measures in artisanal small-scale gold mining

A study conducted by the Institute for Occupational Health and Safety and Development (IOHSD), illustrates that the leading types of accidents in mines are suffocation from chemical fumes, being hit by falling objects, and crushing injuries. While the most common causes of accidents among small-scale miners are: use of substandard poorly maintained equipment, rock falls, non-compliance on wearing personal protective equipment (PPE), and non-

observance of safety practices (Lu, 2012). Table 1 are the practices, hazards with the corresponding PPE as instructed by DOLE (2016) in its Occupational Safety and Health Standards (OSHS): Rule 1080 Personal Protective Equipment and Devices.

Table 1. Selected common mining practices, hazards, injuries and personal protective equipment

Practices	Hazards	Injuries	Personal protective equipment
1. Tunneling/ Excavating	• Drilling equipment • Explosives • Confined spaces • Faulty/Unstable Supports • Stagnant air • Poisonous gases • Dust • Darkness • Dampness • Radiation	Death Traumatic injury Lacerations Suffocation Contusions and/or abrasions Respiratory diseases Nausea Exhaustion	• Protective goggles • Safety helmet • Fabric gloves (to avoid abrasions) • Safety boots • Nose mask • Oxygen supply set • Safety belts/Life lines
2. Diving into muddy wells	• Explosives • Confined spaces • Faulty supports • Poisonous gases • Muddy, dirty, cold underground water • Darkness	Death Contusions and/or abrasions Suffocation Skin diseases Respiratory diseases Eye injuries and infections Nausea Exhaustion	• Protective goggles • Ear plugs • Oxygen supply set • Safety belts/Life lines
3. Digging or hand-picking ore, slabs, rock, or sand in dry underground pits	• Heavy tools • Heavy loads • Repetitive movements • Dangerous heights • Open holes • Falling objects • Moving vehicles • Noise • Dust	Traumatic injury Blistered hands and feet Lacerations Musculoskeletal disorders Noise-induced hearing loss Suffocation Heat stroke Dehydration Eye injuries and infections	• Protective goggles • Safety helmet • Fabric gloves (to avoid abrasions) • Safety boots • Nose mask • Oxygen supply set • Safety belts/Life lines

4. Sifting; washing; amalgamating	• Lead, mercury and other heavy metals • Chemical and biological hazards • Dust • Repetitive movements • Bending • Squatting or kneeling • Prolonged standing in the water	Contusion and/or abrasions	• Protective goggles • Rubber gloves (for chemicals) • Nose mask
		Impaired neurological development	
		Skin diseases	
		Musculoskeletal disorders	
		Fatigue	
		Immune deficiency	
		Diarrhea and digestive disorders	
		Genital corrosions and miscarriages	
		Neuromuscular disorders	
		Death	

Source: Long, San, Nietzel (2015); McWhorter, et. al. (2017); Mones (2017); OECD (2017); Rand (2010); DOLE (2016) Occupational Safety and Health Standards: Rule 1080 Personal Protective Equipment and Devices.

2. OBJECTIVES OF THE STUDY

The study aims to:

a. Develop and pilot test tools and processes to collect data on artisanal and small-scale gold mining (ASGM) issues such as but not limited to child labour, working conditions, informality and mercury contamination, and non-compliance with other fundamental labour standards, namely: forced labour; discrimination in employment; and non-recognition of the freedom of association.

b. Examine the obstacles and challenges faced by child and adult workers in ASGM sector using the data gathered from the identified pilot site for the implementation of the data collection instrument and processes.

c. Determine existing policies and programmes by the government to address the identified ASGM issues at the local level, examine the nature and extent of access of the target groups, and identify gaps for possible intervention.

d. Build the capacities of and provide support to the Municipal Local Government Units (MLGUs) planning unit and focal persons in the pilot site

on actual collection of necessary data that can serve as inputs for Local Development Plans and Annual Investment Plans.

The results and lessons learned from the mentioned process using Community-Based Monitoring System (CBMS) are expected to be disseminated and discussed to other mining municipalities and key stakeholders at the national and local level.

2.1 Methodology and data source

The study utilizes the CBMS core questionnaire together with a developed rider questionnaire to gather specific information that can be used for preparation of the profile of workers in ASGM, identify and analyze priority needs, and serve as inputs in the design of development programmes for the community.

Data collection was conducted in October to December 2018 through a tablet-based household survey using the CBMS platform based on the final pre-tested rider questionnaire. The selection of the survey respondents was based on: (a) review of latest LGU-CBMS census data and identification of possible survey site given objectives of the study; and (b) identification of survey site based on local consultation meetings. The conduct of this rider survey was implemented in close coordination with the Municipal Government of Labo, Camarines Norte.

Trained enumerators, together with local coordinators from the pilot sites, implemented the field activity. This involves: (a) conduct of household survey using the CBMS household profile questionnaire and rider covering the identified sample households/population; (b) administration of the CBMS barangay profile questionnaire in the three pilot barangays; and (c) interview of child and adult members of the sample household who were identified to be engaged in mining. During the data-gathering period, the study was able to cover 251 households in three barangays in which 134 households had at least one child labourer.

3. FINDINGS

3.1 A child labour profile

The respondents of this study comprised of 172 children engaged in any mining related activity for the past 12 months, 123 (75 per cent) of which are males while 49 (28.5 per cent) are females. Table 2 is the current age year of the children, more than half (58.1 per cent) are aged 10 to 14 years old, while 35.5 per cent are aged 15 to 17 years old, and lastly 6.4 per cent are aged five to nine years old.

Table 2. Children currently engaged in any mining related activity by age and sex, selected sites, Municipality of Labo, Camarines Norte

Age	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
5-9	6	54.6	5	70	11	6.4
10-14	70	70	30	30	100	58.1
15-17	47	77	14	23	61	35.5
Total	**123**	**71.5**	**49**	**29**	**172**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

In Table 3, 64 per cent of the children have been involved in any mining related activity for the past one to two years. On the other hand, 20.4 per cent have been involved for the past three to four years, followed by five to six years.

Table 3. Children currently engaged in any mining related activity by number of years involved in mining

Years	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
0	1	0.8	1	2.0	2	1.2
1-2	73	59.3	37	75.5	110	64.0
3-4	26	21.1	9	18.4	35	20.3
5-6	17	13.8	2	4.1	19	11.0
7-8	3	2.4	0	0	3	1.7
9-10	3	2.4	0	0	3	1.7
Total	**123**		**49**		**172**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

3.2 Educational status and school participation

In terms of the educational status and school participation, 31 children (18 per cent) are not attending school while 141 (82 per cent) are currently in school (Table 4). Out of the 141 children attending school, more than half (54.6 per cent) are in Grades 7 to 10. Following this, 27.7 per cent are in Grades 4 to 6 and 9.2 per cent are in Grades 1 to 3. Moreover, among those who are currently attending school majority (97 per cent) are in public schools (Table 5).

Table 4. Proportion of child labourers currently attending school by sex

Educational status	Male		Female		Total	
	Freq.	%	Freq.	%t	Freq.	%
Yes	96	78	45	91.8	141	82
No	27	22	4	8.2	31	18
Total	**123**		**49**			

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 5. Proportion of child labourers currently attending school by grade level

Grade level	Total	
	Freq.	%
Nursery/Kindergarten/Preparatory	2	1.4
Grade 1-3	13	9.2
Grade 4-6	39	27.7
Grade 7-10	77	54.6
Grade 11-12	6	4.3
Alternative Learning System (ALS) elementary	1	0.7
ALS secondary	2	1.4
Special education (SPED) elementary	1	0.7
Total	**141**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Among those who are not attending school, more than half are aged 16 and 17 years old. The highest educational attainment of those not attending school are: Grade 7 (16.1 per cent); Grade 4 (13 per cent); Grade 8 (13 per cent); and Elementary graduate (13 per cent). Moreover, 61.3 per cent cited "Lack of personal interest" as their reason for not attending school with 41.9 per cent coming from ages 16 to 17. Other reasons cited were: high cost of education/ financial concern (19.4 per cent); housekeeping/taking care of siblings (3.2 per cent); cannot cope with schoolwork (3.2 per cent); finished schooling (3.2 per cent); and got pregnant (3.2 per cent) (Table 6).

Table 6. Proportion of child labourers currently not attending school by sex and age

Reason for not attending school	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Lack of personal interest	17	63.0	2	50	19	61.3
High cost of education/ Financial concern	6	22.2	0	0	6	19.4
Housekeeping/Taking care of siblings	1	3.7	0	0	1	3.2
Cannot cope with school work	1	3.7	0	0	1	3.2
Finished schooling	1	3.7	0	0	1	3.2
Got pregnant	0	0	1	25	1	3.2
Others	1	3.7	1	25	2	6.5
Total	**27**		**4**		**31**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Reason for not attending school	Age/year						Total	
	12	13	14	15	16	17	Freq.	%
Lack of personal interest	0	2	2	2	4	9	19	61.3
High cost of education/ Financial concern	1	0	0	3	1	1	6	19.4
Housekeeping/Taking care of siblings	0	0	1	0	0	0	1	3.2
Cannot cope with school work	0	0	1	0	0	0	1	3.2
Finished schooling	0	0	0	0	1	0	1	3.2
Got pregnant	0	1	0	0	0	0	1	3.2
Others	0	0	0	2	0	0	2	6.5
Total	**1**	**3**	**4**	**7**	**6**	**10**	**31**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

From the 18 per cent of the children who are not attending school, their highest educational attainment are: Grade 7 (16 per cent); Grade 4 (13 per cent); Grade 8 (13 per cent); and Elementary graduate (13 per cent) as illustrated in Table 7.

Table 7. Proportion of child labourers currently not attending school by highest educational attainment

Educational attainment	Freq.	%
Grade 7	5	16.1
Grade 4	4	13
Grade 8	4	13
Elementary graduate	4	13
Grade 6	3	9.7
Grade 9	3	9.7
Grade 2	2	6.5
Grade 3	2	6.5
Grade 1	1	3.2
Grade 5	1	3.2
Grade 10	1	3.2
ALS elementary	1	3.2
Total	**31**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

3.3 Child labour working conditions

With reference to the children's working conditions in the mining sector, 91 per cent are engaged in surface mining. Both male and female child labourers are involved in surface mining, while only males are involved in underground and compressor mining. Table 8 are the types of mining the child labourers have

engaged in disaggregated by sex. Other types of mining recorded from the survey are compressor and underground mining.

Table 8. Proportion of children currently engaged in mining by type of mining and sex

Types of mining	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Surface mining	108	87.8	49	100	157	91.3
Compressor mining	5	4.1	0	0	5	2.9
Compressor and surface mining	5	4.1	0	0	5	2.9
Underground mining	3	2.4	0	0	3	1.7
Underground and compressor mining	1	0.8	0	0	1	0.6
Surface and underground Mining	1	0.8	0	0	1	0.6
Total	**123**		**49**		**172**	

Source of Basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

More specifically, illustrated in Table 9 are the surface mining activities the child labourers have engaged in where nine out of ten children are doing panning. It is important to take note that half of these activities expose the children to mercury and its vapour and these are: (a) grinding or pulverizing of ore using ball/rod mills; (b) grinding or pulverizing of ore; (c) panning (*pabirik*); (d) amalgamation using mercury; and (e) blowtorching (*pagluto ng ginto*). These activities are also evident in underground and compressor mining (Tables 10 and 11).

Table 9. Proportion of children currently engaged in surface mining activities by sex

Surface mining activities	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Digging or hand picking ore/ rock/sand	41	36.0	16	32.7	57	35.0
Transporting heavy materials	15	13.2	1	2	16	9.8
Ore sifting	51	44.7	22	45	73	44.8
Grinding or pulverizing of ore manually	23	20.2	13	26.5	36	22.1
Grinding or pulverizing of ore using ball/rod mills	2	1.8	0	0	2	1.2
Panning (*pabirik*)	104	91.2	42	85.7	146	89.6
Amalgamation using mercury	42	36.8	10	20.4	52	31.9
Blowtorching (*pagluto ng ginto*)	28	24.6	4	8.2	32	19.6

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018

In surface mining, 90 per cent are engaged in panning, 32 per cent in amalgamation, and 20 per cent in blowtorching. Meanwhile in compressor

mining, 55 per cent are engaged in panning, 27 per cent in amalgamation, and 36 per cent in blowtorching. Lastly, in underground mining, majority (60 per cent) are engaged in digging or hand picking ore/rock/sand, while 40 per cent are engaged in panning, amalgamation and blowtorching.

Table 10. Children currently engaged in compressor mining activities

Compressor mining activities	Freq.	%
Draining of water inside the mining site	1	9.1
Digging or hand picking ore/rock/sand	2	18.2
Transporting heavy materials	3	27.3
Ore sifting	5	36.4
Grinding or pulverizing of ore manually	1	9.1
Panning (*pabirik*)	6	54.6
Amalgamation using mercury	3	27.3
Blowtorching (*pagluto ng ginto*)	4	36.4
Compressor operator	1	9.1

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 11. Children currently engaged in underground mining activities

Underground mining activities	Freq.	%
Tunneling underground	1	20
Digging or hand picking ore/rock/sand	3	60
Transporting heavy materials	2	40
Ore sifting	1	20
Panning (*pabirik*)	2	40
Amalgamation using mercury	2	40
Blowtorching (*pagluto ng ginto*)	2	40

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

As for the children's work schedule, mostly (74.4 per cent) are working during weekends (Table 12). Aside from this, results also show that the children spend an average of 18 hours doing any mining related activity in a week.

Table 12. Children currently engaged in mining activity by work schedule

Schedule	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Weekends	88	71.5	40	81.6	128	74.4
Weekdays	28	22.8	6	12.2	34	19.8
Weekends and holidays	2	1.6	2	4.1	4	2.3
Weekdays and weekends	2	1.6	1	2.0	3	1.7
Weekdays, weekends and holidays	2	1.6	0	0	2	1.2
Holidays	1	0.8	0	0	1	0.6
Total	**123**		**49**		**172**	

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Moreover, 39 per cent of the child labourers have been involved in any mining related activity for the past two years. About 2/3 of them (65.7 per cent) started at the age of ten to 14 years old. Interestingly, from the 342 adults currently engaged in mining, 138 (40.4 per cent) adults started as child labourers as well who also started at the age of ten to 14 years old (Table 13).

Table 13. Proportion of adults who started as child labourers by age and sex

Age	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
4-9	17	14.8	5	21.7	22	15.9
10-14	52	45.2	11	47.8	63	45.7
15-17	46	40	7	30.4	53	38.4
Total	**115**		**23**		**138**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

For those adults who started as child labourers, their highest educational attainment (Table 14). 33 per cent are elementary graduates, 23.2 per cent finished between Grades 4 to 6, and 17.4 per cent finished between Grades 7 to 10.

Table 14. Adult workers who started as child labourers highest educational attainment

Highest educational attainment	Freq.	%
No grade	3	2.1
Grade 1-3	12	8.7
Grade 4-6	32	23.2
Grade 7-10	24	17.4
Grade 11-12	6	4.5
Second year PS	1	0.7
ALS secondary	1	0.7
Elementary graduate	45	32.6
High school graduate (old curriculum)	12	8.7
Senior high school graduate (K-12 curriculum)	1	0.7
Master's/PhD graduate	1	0.7
Total	**138**	**100**

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

As for the type of mining, they are currently engaged in, majority or 48.6 per cent of the adult workers are involved in surface mining, 52 per cent of which are males and 48 per cent are females (Table 15).

In terms of mining income, the average income of the children involved in mining for a week is Philippine Peso (PhP) 286. In addition, the average proportion of their mining income to the total household income is 46.9 per cent, which is almost half of the total household income (Table 16).

Table 15. Proportion of adult workers who started as child labourers engaged in different types of mining by sex

Type of mining	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Surface mining	36	31.30	17	73.91	53	40.15
Underground mining	32	27.83	2	8.70	34	25.76
Compressor mining	23	20.00	3	13.04	26	19.70
Underground and compressor	7	6.09	0	0.00	7	5.30
Compressor and surface	5	4.35	1	4.35	6	4.55
Surface and underground	6	5.22	0	0.00	6	4.55
Underground, surface and compressor	6	5.22	0	0.00	6	4.55
Total	**115**	**100**	**23**	**100**	**138**	**100**

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 16. Use of income of children engaged in mining, selected sites, Municipality of Labo, Camarines Norte

Mining income allotment	Freq.	%
Give all or part of earnings to my parents/guardians	31	18.0
Employer gives all or part of earning to my parents/guardians	1	0.6
Pay for my tuition and/other school expenses	88	51.2
Buy food	106	61.6
Buy other household things (non-food)	6	3.5
Buy things for myself	72	41.9
Savings	11	6.4

Source of basic data: CBMS- child labour survey, selected barangays, Labo, Camarines Norte, 2018.

When the children were asked what their reason was for engaging in mining, (Table 17) 39.5 per cent answered additional income. Other reasons cited were: quick income (19.8 per cent); to pay for own schooling (16.3 per cent); to supplement family income (15.7 per cent); family business/grown up (8.1 per cent); and lack of skills and trainings in other forms of livelihood (0.6 per cent).

Table 17. Main reason of child labourers for engaging in mining

Main reason for engaging in mining	Freq.	%
Additional income	68	39.5
Quick income	34	19.8
To pay for own schooling	28	16.3
To supplement family income	27	15.7
Family business/Grown up	14	8.1
Lack of skills and trainings in other forms of livelihood	1	0.6
Total	**172**	

Source of basic data: CBMS- hild labour survey, selected barangays, Labo, Camarines Norte, 2018.

In terms of the tools, machinery and heavy equipment used in any mining related activity, 78.5 per cent answered that they use tools, machinery and heavy equipment at work. Table 18 are the tools, machinery and heavy equipment used by the children. Majority (75 per cent) use pan for panning while 69.2 per cent use shovel. Other tools used are: blowtorch (17.4 per cent); crowbar (12.8 per cent); *akawan* (11.1 per cent); *pagadgad* (4.1 per cent); hammer (3.5 per cent); k*awalian* (2.9 per cent); and mallet (2.3 per cent).

Table 18. Type of tools used by children engaged in mining

Tools	Freq.	%
Panning (*pabirik*)	129	75.0
Shovel	119	69.2
Blowtorch (*pang luto ng ginto*)	30	17.4
Crowbar *(bareta)*	22	12.8
Akawan	19	11.1
Pagadgad	7	4.1
Hammer	6	3.5
Kawalian	5	2.9
Mallet *(maso)*	4	2.3
Sinsil	3	1.7
Blower (*para sa bitahan*)	2	1.2
Dipper *(tabo)*	2	1.2
Chisel (*pait*)	1	0.6
Ball mills/Rod mills	1	0.6
Mortar (*pandikdik*)	1	0.6
Mowell	1	0.6
Total	**352**	**100**

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

3.4 Working safety and health hazards

75 per cent of the child labourers are supervised by their relatives or other adults when mining (Table 19). In fact, a seven-year-old boy is already engaged in surface mining since his grandfather manages a mining hole or *balon*.

Table 19. Proportion of child labourers in mining who are supervised by an adult during their work

	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Family	70	74.5	28	77.8	98	75.4
Other relatives	20	21.3	7	19.4	27	20.8
Employer/Financer	2	2.1	0	0	2	1.5
Others	2	2.1	1	2.8	3	2.3
Total	**94**		**36**		**130**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Children engaged in ASGM are exposed to a number of hazards, 43 per cent of them answered being exposed to slip, trip, or fall hazards while mining. Apart from this, 27 per cent are exposed to extreme temperature and humidity and 26 per cent are exposed to noise while 2 per cent answered being exposed to insufficient exit for prompt escape and inadequate illumination or lighting. Lastly, 1 per cent are being exposed to congested layout or confined spaces and faulty or unstable support (Table 20).

Table 20. Proportion of child labourers who are exposed to physical hazards by sex

Physical hazards	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Slip, trip, or fall hazards	57	40.4	30	48.4	87	42.9
Extreme temperature or humidity	36	25.5	18	29	54	26.6
Noise	40	28.4	12	19.4	52	25.6
Insufficient exit for prompt escape	3	2.1	1	1.6	4	2.0
Inadequate illumination or lighting	2	1.4	1	1.6	3	1.5
Congested layout or confined spaces	2	1.4	0	0	2	1.0
Faulty or unstable supports	1	0.7	0	0	1	0.5

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Most of the children are engaged in the processing of ore, which uses mercury to combine minute pieces of gold mixed in the ore/rocks/sand. In particular, mercury is used in panning, amalgamation and blowtorching. Exposure to mercury leads to skin diseases wherein 33.7 per cent answered that they have experienced it while mining. Apart from the skin diseases, the children also mentioned having experienced minor respiratory disease (colds, coughs, flu) (29 per cent), chronic body aches or pains (head, neck, back, hand, wrist and joints) (9 per cent) and eye strain or eyesight impairment (2 per cent) (Table 21). In addition to this, only 6.4 per cent of the child labourers use PPE such as gloves, boots, hair caps and overalls while working.

Table 21. Child labourers who have experienced illnesses because of work

Illnesses	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Skin diseases (skin allergy, eczema)	40	32.5	18	36.7	58	33.7
Minor respiratory disease (colds, coughs, flu)	36	29.3	14	28.6	50	29.1
Chronic body aches or pains (head, neck, back, hand, wrist, joints)	13	10.6	2	4.1	15	8.7
Eye strain or eyesight impairment	3	2.4	0	0	3	1.7
Hearing impairment	1	0.8	0	0	1	0.6
Respiratory (asthma, tuberculosis, pneumonia)	1	0.8	0	0	1	0.6

Apart from the illnesses the children have experienced while mining, they also answered a number of injuries acquired because of the nature of their work. 33 per cent answered wounds or punctures, 28 per cent experienced contusions, bruises, hematoma, or abrasion, 19 per cent experienced cuts, and 6 per cent got heat related illnesses such as heat stroke and chills. In addition, 3 per cent suffered dislocations, fractures, or sprains while 2 per cent experienced burns. One child answered amputations or loss of body part/s (Table 22).

Table 22. Child labourers who have experienced injuries because of work

Injuries	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Wounds or punctures	40	32.5	16	32.7	56	32.6
Contusions, bruises, hematoma, or abrasion	34	27.6	14	28.6	48	27.9
Cuts	24	19.5	9	18.4	33	19.2
Heat related illnesses (heat stroke, chills)	9	7.3	1	2	10	5.8
Dislocations, fractures, sprains	4	3.3	1	2	5	2.9
Burns	2	1.6	2	4.1	4	2.3
Amputations, loss of body part/s	0	0	1	2.0	1	0.6
Crushing injuries	0	0	1	2.0	1	0.6
Suffocation	1	0.8	0	0	1	0.6

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

3.5 Profile of adult workers currently engaged in mining

There are a total of 342 adult workers who are currently engaged in mining covered by this study. 22.5 per cent of the adult workers have been engaged in mining for one to five years, 21.3 per cent have been engaged for six to ten years, and 15.8 per cent have been engaged in mining for 16 to 20 years (Table 23).

Table 23. Number and proportion of adult workers engaged in ASGM, by years engaged in mining

Years	Freq.	%
0	2	0.6
1-5	77	22.5
6-10	73	21.3
11-15	50	14.6
16-20	54	15.8
21-25	22	6.4
26-30	34	9.9
31-35	13	3.8
36-40	9	2.6
41-45	5	1.5
46-50	2	0.6
Total	**342**	**100.0**

In Table 24, there are 106 households (42.2 per cent) who have at least one adult and child worker currently engaged in any mining related activity.

Table 24. Number and proportion of households with adult and child workers engaged in ASGM

	Freq.	%
Households with an adult and child miner	106	42.2
Households covered	251	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

For their highest educational attainment (Table 25), majority of the adult workers currently engaged in mining are elementary graduates (31.9 per cent), while 30.4 per cent finished Grades 4 to 6, and 16.1 per cent finished Grades 7 to 10. Only 9.6 per cent graduated high school and 0.3 per cent who graduated college.

Table 25. Highest educational attainment of adult workers engaged in ASGM

Highest educational attainment	Freq.	%
No grade	4	1.2
Grade 1-3	23	6.7
Grade 4-6	94	27.5
Grade 7-10	55	16.1
Grade 11-12	7	2.0
2nd year PS	2	0.6
1st-3rd year college	9	2.6
4th year college or higher	1	0.3
ALS secondary	1	0.3
Elementary graduate	109	31.9
High school graduate (old curriculum)	33	9.6
Senior high school graduate (K-12 curriculum)	1	0.3
Post-secondary graduate	1	0.3
College graduate, specify course	1	0.3
Master's/PhD graduate	1	0.3
Total	**342**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

In terms of the type of mining, the adults are currently engaged in, almost half (45.6 per cent) are engaged in surface mining, while 22 per cent are engaged in underground mining, and 14 per cent are engaged in compressor mining. A number of adults are involved in two different types of mining, 6 per cent are engaged in both underground and surface mining, while 5 per cent are engaged in underground and compressor mining. Among the adult miners, only one person is engaged in open pit mining (Table 26).

Table 26. Proportion of adults currently engaged in mining by type of mining and sex

Type of mining	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Surface mining	64	27.0	92	88	156	45.6
Compressor mining	43	18.1	4	4	47	13.7
Compressor and surface	11	4.6	1	1	12	3.5
Underground mining	73	30.8	3	3	76	22.2
Underground and compressor	18	7.6	0	0	18	5.3
Surface and underground	20	8.4	0	0	20	5.8
Underground, surface and compressor	7	3.0	1	1	8	2.3
Open pit	0	0.0	1	1	1	0.3
Others: Financer	1	0.4	3	3	4	1.2
Total	**237**		**105**		**342**	

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

In terms of exposure to physical hazards, 26 per cent of the adult workers answered being exposed to slip, trip, or fall hazards followed by noise (21 per cent), extreme temperature or humidity (19 per cent), inadequate illumination or lighting (8 per cent), working underwater (8 per cent), insufficient exit for prompt escape (7 per cent), congested layout or confined spaces (7 per cent), and faulty or unstable supports (5 per cent) (Table 27).

Table 27. Proportion of adult workers who are exposed to physical hazards by sex

Physical hazards	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Slip, trip, or fall hazards	137	24.0	45	34.6	182	26.0
Noise	112	19.6	32	24.6	144	20.6
Extreme temperature or humidity	96	16.8	39	30.0	135	19.3
Inadequate illumination or lighting	48	8.4	5	3.8	53	7.6
Working underwater	52	9.1	1	0.8	53	7.6
Insufficient exit for prompt escape	43	7.5	3	2.3	46	6.6
Congested layout or confined spaces	43	7.5	3	2.3	46	6.6
Faulty or unstable supports	34	6.0	1	0.8	35	5.0
Others	5	0.9	1	0.8	6	0.9

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

For adult workers, 36.5 per cent reported they have experiences minor respiratory diseases like colds, coughs and flu because of the nature of their work in ASGM. This is followed by skin diseases (28.4 per cent), chronic body aches or pains on the head, neck, back, hand, wrist, or joints (21.3 per cent), eye strain or eyesight impairment (5 per cent), gastro-intestinal issues like ulcer and hepatitis

(3.5 per cent), hearing impairment (3.3 per cent), and lastly respiratory issues such as asthma, tuberculosis and pneumonia (1.9 per cent) (Table 28).

Table 28. Adult workers who have experienced illnesses because of work

Type of illnesses	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Minor respiratory disease (colds, coughs, flu)	156	36.1	41	38.3	197	36.5
Skin diseases (skin allergy, eczema)	114	26.4	39	36.4	153	28.4
Chronic body aches or pains (head, neck, back, hand, wrist, joints)	94	21.8	21	19.6	115	21.3
Eye strain or eyesight impairment	24	5.6	3	2.8	27	5.0
Gastro-intestinal (ulcer, hepatitis)	19	4.4	0	0.0	19	3.5
Hearing impairment	16	3.7	2	1.9	18	3.3
Respiratory (asthma, tuberculosis, pneumonia)	9	2.1	1	0.9	10	1.9

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

As for the injuries the adult workers have experienced, 24.8 per cent reported wounds or punctures, 24.6 per cent had contusions, bruises, hematoma, or abrasions, and 22.9 per cent experienced cuts. 9.6 per cent experienced crushing injuries, while 7 per cent reported suffocation because of their work. 3.7 per cent experienced burns, 3.6 per cent had dislocations, fractures, or sprains, 3.6 per cent experienced heat related illnesses such as heat stroke and chills, and 0.3 per cent reported amputations or loss of body parts (Table 29).

Table 29. Adult workers who have experienced injuries because of work

Type of injuries	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Wounds or punctures	125	23.7	35	29.4	160	24.8
Contusions, bruises, hematoma, or abrasion	128	24.3	31	26.1	159	24.6
Cuts	113	21.4	35	29.4	148	22.9
Crushing injuries	59	11.2	3	2.5	62	9.6
Suffocation	38	7.2	7	5.9	45	7.0
Burns	23	4.4	1	0.8	24	3.7
Dislocations, fractures, sprains	20	3.8	3	2.5	23	3.6
Heat related illnesses (heat stroke, chills)	19	3.6	4	3.4	23	3.6
Amputations, loss of body parts	2	0.4	0	0.0	2	0.3

Source of basic data: CBMS-child labour survey, selected barangays, Labo, Camarines Norte, 2018.

4. POLICIES AND PROGRAMMES

According to Section 2, Article XII of the 1987 Philippine Constitution, small-scale utilization of resources by Filipino citizens should be recognized and that small-scale mining shall be identified as a formal sector of the industry. Table 30 are the policies and regulations pertaining to SSM over the years. On the other hand, in Table 31 are the officially declared Minahang bayan by the Department of Environment and Natural Resources (DENR) Mines and Geosciences Bureau (MGB) as of March 2019.

Presidential Decree (PD) 1899 and Republic Act (RA) 7076, also known as the People's Small-scale Mining Act, principally govern Artisanal and Small-scale Gold Mining in the Philippines. Other laws such as RA 7942 or the Philippine Mining Act of 1995, however, carry provisions that also have relevance to ASGM.

Table 30. Evolution of laws governing small-scale mining

Year	Policies/Regulations	Provisions
1974	PD No. 581	Prescribing heavier penalty for high grading from a mining claim
1977	PD No. 1150	Amending PD No. 581 and Regulating Panning or Sluicing for Gold Inside Mining Claims or in Public or Private Lands
1984	PD 1899: Establishing Small-Scale Mining as a New Dimension in Mineral Development	No need for Declared Minahang Bayan and Mineral Processing Zone Issuance of Small Scale Mining Permit Allowed the use of explosives and minimal heavy equipment Exempted from payment of taxes, except income tax
1991	RA 7076: People's Small-Scale Mining Act	Minahang Bayan Scheme: (a) Mineral Processing Zone; and (b) Issuance of Small-Scale Mining Contract and Mineral Processing License With total restriction on the use of explosives and heavy equipment Sale of gold only to the Bangko Sentral ng Pilipinas (BSP) Not exempted to taxes
	RA 7160: Local Government Code of 1991	Provincial/City Mining Regulatory Board (P/CMRB) was created and P/CMRB shall exercise major powers and functions the including the formulation of guidelines and implementing rules and regulations related to RA No. 7076.
1992	DENR Administrative Order 1992-34 (Implementing Rules and Regulations of RA 7076)	
1995	RA 7942: Philippine Mining Act of 1995	An Act Instituting a New System of Mineral Resources Exploration, Development, Utilization and Conservation

		Maintained that small-scale mining shall continue to be governed by RA No. 7076 and other pertinent laws
2012	Executive Order (EO) 79: Institutionalizing and Implementing Reforms in the Philippine Mining Sector	Institutionalizing and Implementing Reforms in the Philippine Mining Sector, Providing Policies and Guidelines to Ensure Environmental Protection and Responsible Mining in the Utilization of Mineral Resources Limitation of metallic minerals to gold, silver and chromite Prohibition on the use of mercury in small-scale mining Provision of technical assistance to small-scale miners
2015	DENR Administrative Order 2015-03 (Revised Implementing Rules and Regulations of RA 7076)	Incorporation of the relevant provisions on small-scale mining under EO 79, with additional prohibition on hydraulicking and compressor mining Making available portions of large-scale mining areas for the declaration as Minahang Bayan Implementation of safety and health, environmental impact mitigation, community development programmes Strict imposition on the location of custom mill(s)/processing plants, only within mineral processing zones Imposition of national and local taxes, and royalty payment, in the case of Mineral Reservations Areas Adoption of current regulations on the transport and export of mineral products Updating the pertinent rates of prescribed fees and charges Adoption of the small-scale administrative mechanism with current administrative set up

Source: Mines and Geosciences Bureau.

ASGM has been devolved to provincial and city local governments by virtue of RA 7076 and the Local Government Code of 1991. Under RA 7076, issuance of mining permits and licenses and the establishment of Minahang Bayan shall be the responsibility of the P/CMRB, a multi-sectoral body, which shall be under the supervision and control of the Secretary of the DENR.

Apart from the local laws and policies, the Philippines likewise signed the Minamata Convention on Mercury in Kumamoto, Japan last October 2013, which strengthened its imperative on the ban of the use of mercury in the country. This global treaty aims to protect both human health and the environment from the detrimental effects of mercury pollution. Moreover, the treaty also includes ban on new mercury mines, phase-out of existing ones, control measures on air

emissions and the international regulation of the informal sector for ASGM. Currently, the Philippines is on the process of ratification of the Convention prepared by the Environmental Management Bureau (EMB), with the assistance of United Nations Institute for Training and Research (UNITAR) and the Swiss Confederation. More specifically, the Ratification Dossier encompasses the overview of the current state of the Philippines on mercury pollution, including existing laws and policies for control and regulation, and the socio-economic and environmental impacts of the convention. Aside from this, it also comprises the initial national action plans and strategies for compliance with the Convention.

4.1 Minahang bayan

According to RA 7076 (1991), the People's Small-Scale Mining Programme (PSSMP) shall include the following features: (a) identification, segregation and reservation of certain mineral lands as People's Small-Scale Mining (PSSM) areas or Minahang bayan; (b) recognition of prior existing rights and productivity; (c) encouragement of the formation of cooperatives; (d) extension of technical and financial assistance, and other social services; (e) extension of assistance in processing and marketing; (f) generation of ancillary livelihood activities; (g) regulation of small-scale mining industry with the view to encourage growth and productivity; and (h) efficient collection of government revenue.

At present, the three barangays covered in this study have different Minahang bayan application status. One has been declared as Minahang bayan by virtue of the resolution from the Provincial Mining Regulatory Board (PMRB) after the DENR Secretary has reviewed the application (Table 31). The other barangay has its application still ongoing and the documents have been submitted to the PMRB and MGB, and the third barangay still has to comply with the documents needed.

Table 31. Officially declared minahang bayan

Minahang bayan	Address	Commodity
1. Manlana Small-Scale Miners Association	Manlana, Buenavista, Quezon	Gold
2. Masabong Village Small-Scale Mining Association	Masabong, Bayugan III, Rosario Agusan del Sur	Gold
3. Tubajon Peoples Small-Scale Mining Area	Provincial Capitol Bldg., San Jose Dinagat Island	Chromite
4. Waso and Binalay Small-Scale Mining Producers Association	Waso, Llorente, Eastern Samar	Chromite
5. Development Community Mining Livelihood Cooperative	Barangay Maputi, Banaybanay Davao Oriental	Chromite
6. Pinatagan SSM Producer Cooperative	Purok 2, Pintatagan Banaybanay, Davao Oriental	Chromite

7. Rodel Lim Panes	Tinago, Pinanaan, Lahong Interior, Aroroy, Masbate	Gold
8. Small-Scale Miners and Mineral Processors of Del Pilar, Cabadbaran City Agusan Del Norte	Pirada, Del Pilar, Cabadbaran Agusan Del Norte	Gold
9. Matigdao Small-Scale Mining Producers Cooperative	Marayag, Lupon, Davao Oriental	Gold
10. Data Jun K. Camsa	Chua and Bual, Bagumbayan and Isulan, Sultan Kudarat	Gold
11. Sangguniang Bayan of Paracale, Camarines Norte	Casalugan, Paracale Camarines Norte	Gold
12. Magkamatao Small-Scale Miners Association	Malaya, Labo, Camarines Norte	Gold
13. MGB RO No. VI	Igcagay, Libertad, Antique	Silica Quartz
14. Loacan Itogon Pocket Miners Association	Loacan, Itogon, Benguet	Gold

Source: Mines and Geosciences Bureau.

4.2 Strategic helpdesks for information, education, livelihood and other developmental interventions: SHIELD against child labour

The SHIELD Project is initiated by the Department of Social Welfare and Development (DSWD) and ILO. This project is targeted for children who are engaged in the worst forms of child labour (WFCL) and the child labourers in the informal economy. SHIELD stands for Strategic Help Desks for Information, Education, Livelihood and other Developmental Interventions. SHIELD against child labour aims to:

(a) establish a Local Child Labour Registration System;
(b) strengthen system and local mechanisms for convergence of services for child labourers and their families through the establishment of a Barangay-based helpdesk, and;
(c) increase awareness and capacities of child labourers, their families and duty bearers.

Moreover, the three key components of this project are:

(a) Child labour local registry;
(b) Barangay helpdesk on child labour and;
(c) Advocacy and capacity building.

Furthermore, the programme gives its beneficiaries PhP1,500 every quarter and school supplies during the beginning of the school year. SHIELD conditionality includes: (a) the child should be currently attending school; and (b) should not engage in any hazardous work, in this case mining, even on weekends and holidays.

4.3 The Pantawid Pamilyang Pilipino Programme (4Ps)

The Conditional Cash Transfer (CCT) Programme or 4Ps is also led by DSWD. The target household beneficiaries of this programme are those who belong to the bottom 40 per cent as identified in the list. Generally, it provides conditional grants to families with children aging 0 to 14 years old to improve their access to health care, adequate nutrition and education. More specifically, the programme has two types of cash grants that are given out to household-beneficiaries: (a) Health Grant wherein the household is given PhP500 every month, or a total of PhP6,000 every year; and (b) Education Grant where PhP300 is given per child for ten months, or a total of PhP3,000 every year. For a household with three children, a household may receive PhP1,400 every month, or a total of PhP5,000 every year for five years, from the two types of cash grants given to them.

In order to receive the abovementioned subsidies, the household-beneficiaries must meet all the succeeding conditions:

- Pregnant women must avail pre- and post-natal care, and be attended during childbirth by a trained professional.
- Parents or guardians must attend the family development sessions, which include topics on responsible parenting, health and nutrition.
- Children aged 0-5 must receive regular preventive health check-ups and vaccines.
- Children aged 6-14 must receive deworming pills twice a year.
- Children-beneficiaries aged 3-18 must enroll in school, and maintain an attendance of at least 85 per cent of class days every month.

4.4 Gaps

There are a number of policies and programmes in place to address the issue of ASGM and child labour as discussed above but there seems to be a gap as this problem still continue to persist. In assessment of these policies and programmes the identified gaps are as follows:

a) Requirements for the Minahang bayan are too technical and the processing are tedious and costly.

b) Based from the gathered data, 49 per cent of the households with child labour are beneficiaries of 4Ps. Moreover, out of the 31 children currently not attending school, more than half (58 per cent) are not 4Ps beneficiaries. Education subsidy for high school students of PhP500 per month may not be adequate.

c) With regards to SHIELD, 36 per cent of households with child labour in two barangays are beneficiaries of SHIELD (Table 32). Because of this, SHIELD may need to be reviewed and complementary programmes may be needed to address child labour.

Table 32. Proportion of households who are 4Ps and SHIELD beneficiaries

Programme	Freq.	%
Pantawid Pamilyang Pilipino Programme (4Ps)	65	48.5
Strategic Helpdesks for Information, Education, Livelihood and other Developmental Interventions: SHIELD against Child Labour (SHIELD)	48	35.8
4Ps and SHIELD	5	3.7
Total	**118**	**88.1**

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

d) Apart from 4Ps and SHIELD, some of these families are also receiving other programmes like Philippine Health Insurance Corporation (PhilHealth) (48 per cent), Sustainable Livelihood Programme (6 per cent), Social Pension for the Indigent Senior Citizens (3 per cent) and Cash for Work (2 per cent) (Table 33).

Table 33. Proportion of households who are beneficiaries of other programmes

Other programmes	Freq.	%
PhilHealth	165	48.2
Total*	**165**	**48.2**
Sustainable livelihood programme	33	6.4
Food for work	5	1.0
Cash for work	8	1.6
Social pension for the indigent senior citizens	14	2.7
Total**	**60**	**11.7**

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.
*Out of 342 adult workers currently engaged in ASGM.
**Out of 514 both children and adult workers currently engaged in ASGM.

5. RECOMMENDATIONS

5.1 For the local government units (LGUs)

- Review the design of 4Ps. Education subsidy for high school students of PhP500 per month may not be adequate.
- Stricter implementation of programmes. Guidelines are needed to ensure effectiveness of the programmes.
- Promote the use of mercury-free methods, such as Gravitation Concentration Method (GCM), to process the mined gold.
- Wider dissemination on better mining technologies and hazards of some methods.
- Explore provision of the ALS to out-of-school youth.
- Since there is no Senior High School within the vicinity of some of the barangays, there is a need to improve access to Senior High Schools

by providing transport assistance (such as school bus, allowance, among others) to enable the children to go to school.

- Additional processing of agricultural products or other livelihood activities.
- Incorporate in the school curriculum about the hazards and effects of child labour.
- Series of discussions about the importance of education among the parents and children.
- Counselling and case management for children and parents.
- Information, education, and communication (IEC) campaigns on the importance of education and the hazards of mining.

5.2 For the families

- Alternate livelihood opportunities and value-adding industries for the families.
- Values formation on better use of earnings from mining. One barangay seems to be better off compared to the others because they make sure to allocate a certain proportion of their income to improve their housing conditions. The Mining Associations can play a bigger role in this particular area.
- Encourage the parents to send their children to school.

5.3 For international organizations

- Review programme intended to eliminate child labour. Data suggests that complementary programmes may be needed to address child labour.
- Stricter implementation of conditionalities for some of the government and non-government programmes.
- Use CBMS data to identify households with child labourers; can improve targeting of interventions.
- IEC campaigns on the importance of education and the hazards of mining.

REFERENCES

Betcherman, G., Fares, J., Luinstra, A., & Prouty, R. (2004). Child Labour, Education, and Children's Rights (S. P. Unit, Trans.) *Social Protection Discussion Paper Series*. Washington, D.C.: The World Bank.

Bhat, B. (2010). Gender, Education, and Child Labour: A Sociological Perspective. *Educational Research and Reviews, 5*(6), 323-328.

Bugnosen, E. (2001). Country Case Study on Artisanal and Small-scale Mining: Philippines, *83*, 8.

Caymo, A. (2016). Analysis of the Child Labour Issue in Small-Scale Mining Operations in the Philippines. Retrieved from https://lib.ugent.be/fulltxt/RUG01/002/272/391/RUG01-002272391_2016_0001_AC.pdf

Counter, S. A., Buchanan, L. H., Ortega, F. and Laurell, G. (2002). Elevated Blood Mercury and Neuro-Otological Observations in Children of the Ecuadorian Gold Mines. *Journal of Toxicology and Environmental Health*, *65*(2), 149–163. https://doi.org/10.1080/152873902753396785

De Castro, A. T. (2010). Hazards at Work: Child Labour in Agriculture: Institute for Labor Studies.

Del Rosario, R. and Bonga, M. (2000). *Child Labour in the Philippines: A Review of Selected Studies and Policy Papers*: Office of the Vice Chancellor for Research and Development University of the Philippines.

Grisewood, N., Brand, S., Abbassi, K. C., Ruiz, H. and Walker, V. (2008). Best Practices in Preventing and Eliminating Child Labour through Education Drawn from the Global CIRCLE Project. Arlington: Winrock International.

Huesca, E. F. (2013). Gender and Child Labour Issues in Mining: A Preliminary Study on the Artisanal and Small-scale Mining (ASM) Industry in Davao Oriental, Philippines. *Procedia - Social and Behavioral Sciences*, *91*, 150–157. https://doi.org/10.1016/j.sbspro.2013.08.412

International Labour Organization-International Programme on the Elimination of Child Labour. (2003). *In search for the pot of gold: A case study of the experiences of the ILO-IPEC Programme on the Elimination of Child Labour in Small Mining Communities in the Province of Camarines Norte, Philippines* (Working paper). Retrieved from http://www.ilo.org/manila/publications/WCMS_572266/lang--en/index.htm

International Labour Organization. (2005, June 12). Eliminating Child Labour in Mining and Quarrying. International Labour Organization International Programme on the Elimination of Child Labour.

Israel, D. C., & Asirot, J. P. (2003). *Mercury pollution due to small-scale gold mining in the Philippines: an economic analysis* (2. print). Makati City.

Johansson, J. (2009). *Causes of Child Labour- A case study in Babati town, Tanzania.* (Bachelor's Thesis), Södertörn University College.

Kezar, A., Frank, V., Lester, J., & Yang, H. (2008). Why is Education Important for Your Future and How Can Education IDAS Help You Reach Your Educational Goals? (pp. 4). Los Angeles, CA: Rossier School of Education, University of Southern California.

Kippenberg, J. (2015). *"What…if something went wrong? hazardous child labour in small-scale gold mining in the Philippines*. New York, N.Y.: Human Rights Watch.

Køster-Rasmussen, R., Westergaard, M. L., Brasholt, M., Gutierrez, R., Jørs, E. and Thomsen, J. F. (2016). Mercury Pollution from Small-Scale Gold Mining Can Be Stopped by Implementing the Gravity-Borax Method – A Two-Year Follow-Up Study from Two Mining Communities in the Philippines. *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy*, *25*(4), 567–587. https://doi.org/10.1177/1048291115607929

Kuramoto, J. (2001). Artisanal and Informal Mining in Peru. *International Institute for Environment and Development*, *82*, 54.

Lahiri-Dutt, K. (2008). Digging to Survive: Women's Livelihoods in South Asia's Small Mines and Quarries. *South Asian Survey*, *15*(2), 217–244. https://doi.org/10.1177/097152310801500204

Leinberger-Jabari, A., Parker, D. L. and Oberg, C. (2005). Child Labour, Gender, Health. *Public Health Reports, 120*, 642-647.

Leung, A. M. R., & Lu, J. L. D. (2016). Environmental Health and Safety Hazards of Indigenous Small-Scale Gold Mining Using Cyanidation in the Philippines. *Environmental Health Insights*, *10*, 125–131. https://doi.org/10.4137/EHI.S38459

Long, R., Sun, K., & Neitzel, R. (2015). Injury Risk Factors in a Small-Scale Gold Mining Community in Ghana's Upper East Region. *International Journal of Environmental Research and Public Health*, *12*(8), 8744–8761. https://doi.org/10.3390/ijerph120808744

Lovejoy, O. R. (1908). The Function of Education in Abolishing Child Labour. *The Annals of the American Academy of Political and Social Science, 32*(22), 80-91.

Lu, J. L. (2012). Occupational Health and Safety in Small Scale Mining: Focus on Women Workers in the Philippines. *Journal of International Women's Studies*, *13*, 12.

McWhorter, W., Appiah-Opoku, S., Weber, J., & Jones, S. (2017). Exploring the Potential Health and Safety Issues of Artisanal and Small-Scale Gold Mining in Ghana: A Case Study. University of Alabama, 33.

Meljeteig, P. (1999). Understanding child labour. *Childhood, 6*(1), 5-12.

Mones, M. J. (2017). Safety and Working Conditions in Small-Scale Mining: The Case of Selected Small-Scale Metallic Mines in the Philippines. Institute for Labor Studies, 63.

O'Driscoll, D. (2017). Overview of Child Labour in the Artisanal and Small-Scale Mining Sector in Asia and Africa. *Knowledge, Evidence and Learning for Development*, 23.

Osment, L. (2014). *Child labour; the effect on child, causes and remedies to the revolving menace.* University of Lund, Sweden, Sweden.

Rand, M. A. N. (2010). Artisanal mining and the determinants of health: a global literature review. Retrieved from http://summit.sfu.ca/item/11403

Rufino, C. C. (2015). The Joint Estimation of Filipino Child's Participation in Schooling and Employment and New Stylized Facts on the Philippine Child Labor Situation. *DLSU Business and Economic Review, 25*(1), 119-142.

Rimando, M. (2017, June 12). See you at my “playground”: Tackling child labour in gold mining [Feature]. Retrieved June 20, 2018, from http://www.ilo.org/global/about-the-ilo/newsroom/features/WCMS_554948/lang--en/index.htm

Sakellariou, C. and Lall, A. (2000a). Child Labour in the Philippines: Determinants and Effects. *Asian Economic Journal, 14*(3), 233-253.

Sakurai, R. (2007). Child Labour and Education: United Nations Educational, Scientific and Cultural Organization

Srivastava, K. (2011). Child Labour Issues and Challenges. *Industrial Psychiatry Journal, 20*(1), 1-3. doi: 10.4103/0972-6748.98406

Ullen, A., & Eck, K. (2011). A child labour free Philippines: When will that be? (Social Work), Ersta Sköndal University College.

List of annexes

Annex 1
OTHER CROSS TABULATIONS AND TABLES

A. Profile of the child labourers

Table 34. Number of years involved in mining by age

Age/ Year	Years in mining										
	Less than a year	1	2	3	4	5	6	7	8	10	Total
5	0	1	0	0	0	0	0	0	0	0	1
6	0	1	0	0	0	0	0	0	0	0	1
7	0	4	0	**1**	0	0	0	0	0	0	5
8	0	0	1	0	0	0	0	0	0	0	1
9	0	1	1	1	0	0	0	0	0	0	3
10	0	8	4	1	0	0	0	0	0	0	13
11	0	5	13	2	1	0	0	0	0	0	21
12	0	7	8	0	1	2	0	0	0	0	18
13	0	4	13	5	1	0	1	0	0	0	24
14	0	4	10	5	1	3	0	0	0	**1**	24
15	2	4	7	7	2	5	0	0	0	1	28
16	0	2	5	3	1	4	1	0	0	0	16
17	0	2	5	3	0	2	1	1	2	1	17
Total	**2**	**43**	**67**	**28**	**7**	**16**	**3**	**1**	**2**	**3**	**172**

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

B. Child labour educational status and school participation

Table 35. Proportion of children currently attending school by type of mining household

Age	Currently attending school			
	Children currently engaged in mining households		Children not engaged in mining households	
	Freq.	%	Freq.	%
5	1	0.7	27	6.3
6	1	0.7	35	8.1
7	5	3.5	40	9.3
8	1	0.7	44	10.2
9	3	2.1	40	9.3
10	13	9.2	43	10.0
11	21	14.9	38	8.8
12	17	12.1	30	7.0
13	21	14.9	34	7.9
14	20	14.2	33	7.7
15	21	14.9	30	7.0
16	10	7.1	17	4.0
17	7	5.0	19	4.4
Total	**141**	**100**	**430**	**100**

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 36. Current age year of the children not attending school

Age/Year	Freq.	%
17	10	32.3
15	7	22.6
16	6	19.4
14	4	12.9
13	3	9.7
12	1	3.2
Total	**31**	

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 37. Proportion of children currently not attending school engaged in different types of mining by age

	Male		Female		Total	
Types of mining	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
Surface mining	22	84.6	4	15.38	26	76.5
Underground mining	4	100	0	0	4	11.8
Compressor mining	4	100	0	0	4	11.8
Open pit mining	0	0	0	0	0	0
Total	**30**	**88.2**	**4**	**11.76**	**34**	**100**

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 38. Proportion of children not attending school engaged in underground mining activities by age

Underground mining activities	Age			Total	
	5-9	**10-14**	**15-17**	**Freq.**	**%**
Digging or hand picking ore/rock/sand	0	0	3	3	9.7
Tunneling underground	0	0	1	1	3.2
Transporting heavy materials	0	0	1	1	3.2
Ore sifting	0	0	1	1	3.2
Panning	0	0	1	1	3.2
Amalgamation using mercury	0	0	1	1	3.2
Blowtorching (*pagluto ng ginto*)	0	0	1	1	3.2

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 39. Proportion of children currently not attending school engaged in compressor mining activities by age

Compressor mining activities	Age			Total	
	5-9	**10-14**	**15-17**	**Freq.**	**%**
Panning	0	0	3	3	9.7
Blowtorching (*pagluto ng ginto*)	0	0	2	2	6.5
Transporting heavy materials	0	0	1	1	3.2
Ore sifting	0	0	1	1	3.2
Grinding or pulverizing of ore manually	0	0	1	1	3.2
Amalgamation using mercury	0	0	1	1	3.2
Compressor operator	0	0	1	1	3.2

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 40. Proportion of children currently not attending school engaged in surface mining activities by age

Surface mining activities	Age			Total	
	5-9	10-14	15-17	Freq.	%
Ore sifting	0	4	5	9	29
Digging or hand picking ore/rock/sand	0	2	5	7	22.6
Grinding or pulverizing of ore manually	0	3	4	7	22.6
Transporting heavy materials	0	2	4	6	19.4
"Muck out"	0	1	1	2	6.5
Grinding or pulverizing of ore using ball/rod mills	0	0	1	1	3.2
Panning	0	7	16	23	74.2
Amalgamation using mercury	0	5	8	13	41.9
Blowtorching (*pagluto ng ginto*)	0	3	7	10	32.3

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 41. Proportion of children engaged in underground mining activities by age

Underground mining activities	Age			Total	
	5-9	10-14	15-17	Freq.	%
Tunneling underground	0	0	1	1	7.7
Digging or hand picking ore/rock/sand	0	0	3	3	23.1
Transporting heavy materials	0	1	1	2	15.4
Ore sifting	0	0	1	1	7.7
Panning	0	1	1	2	15.4
Amalgamation using mercury	0	1	1	2	15.4
Blowtorching (*pagluto ng ginto*)	0	1	1	2	15.4

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018

C. Child labour working conditions

Table 42. Proportion of children engaged in compressor mining activities by age

Compressor mining activities	Age			Total	
	5-9	10-14	15-17	Freq.	%
Draining of water inside the mining site	0	1	0	1	9.1
Digging or hand picking ore/rock/sand	0	2	0	2	18.2
Transporting heavy materials	0	0	3	3	27.3
Ore sifting	0	3	2	5	45.5
Grinding or pulverizing of ore manually	0	0	1	1	9.1
Panning	0	1	5	6	54.5
Amalgamation using mercury	0	1	2	3	27.3
Blowtorching (*pagluto ng ginto*)	0	1	3	4	36.4
Compressor operator	0	0	1	1	9.1

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018

Table 43. Proportion of children engaged in surface mining activities by age

Surface mining activities	Age			Total	
	5-9	10-14	15-17	Freq.	%
Digging or hand picking ore/rock/sand	3	37	17	57	13.8
Transporting heavy materials	0	8	8	16	3.9
Ore sifting	3	47	23	73	17.6
Grinding or pulverizing of ore manually	2	21	13	36	8.7
Grinding or pulverizing of ore using ball/rod mills	0	0	2	2	0.5
Panning	5	89	52	146	35.3
Amalgamation using mercury	1	31	20	52	12.6
Blowtorching (*pagluto ng ginto*)	1	17	14	32	7.7

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 44. Children's source of capital from mining

Source of capital from mining	Total	
	Freq.	%
Financer	6	3.5
Self/Family	7	4.1
No capital needed	159	92.4
Total	**172**	**100**

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

D. Working safety and health hazards

Table 45. Child labourers in mining who were injured and sought treatment by type of injury

Type of injuries	Child labourers whose illness was treated		Child labourers whose illness was not treated	
	Freq.	%	Freq.	%
Wounds or punctures	42	75	14	25
Contusions, bruises, hematoma, or abrasion	8	16.7	40	83.3
Cuts	23	69.7	10	30.3
Heat related illnesses (Heat stroke, chills)	2	20	8	80
Dislocations, fractures, sprains	1	20	4	80
Burns	1	25	3	75
Suffocation	0	0	1	100
Crushing injuries	1	100	0	0
Amputations, loss of body parts	0	0	0	0

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 46. Type of medical treatment

Type of injuries	First aid		Outpatient		Confinement	
	Freq.	%	Freq.	%	Freq.	%
Wounds or punctures	42	100	0	0	0	0
Contusions, bruises, hematoma, or abrasion	8	100	0	0	0	0
Cuts	23	100	0	0	0	0
Heat related illnesses (Heat stroke, chills)	2	100	0	0	0	0
Dislocations, fractures, sprains	1	100	0	0	0	0
Burns	1	100	0	0	0	0
Suffocation	0	0	0	0	0	0
Crushing injuries	1	100	0	0	0	0
Amputations, loss of body parts	0	0	0	0	0	0

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 47. Proportion of children's injuries payment of medical treatment

Type of injuries	Source of payment for medical treatment					
	Parent/Guardian		Self		Relatives	
	Freq.	%	Freq.	%	Freq.	%
Wounds or punctures	35	83.3	7	16.7	0	0
Contusions, bruises, hematoma, or abrasion	6	75	2	25	0	0
Cuts	17	73.9	6	26.1	0	0
Heat related illnesses (heat stroke, chills)	0	0	2	100	0	0
Dislocations, fractures, sprains	1	100	0	0	0	0
Burns	1	100	0	0	0	0
Suffocation	0	0	0	0	0	0
Crushing injuries	1	100	0	0	0	0
Amputations, loss of body parts	0	0	0	0	0	0

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018

Table 48. Child labourers in mining who got sick and sought treatment, selected sites, Municipality of Labo, Camarines Norte

Type of illness	Child Labourers whose illness was treated		Child Labourers whose illness was not treated	
	Freq.	%	Freq.	%
Skin diseases (skin allergy, eczema)	45	77.6	13	22.4
Minor respiratory disease (colds, coughs, flu)	37	74	13	26
Chronic body aches or pains (head, neck, back, hand, wrist, joints)	6	40	9	60
Eye strain or eyesight impairment	0	0	3	100
Hearing impairment	0	0	1	100
Respiratory (asthma, tuberculosis, pneumonia)	0	0	1	100
Gastro-intestinal (ulcer, hepatitis)	0	0	0	0

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 49. Type of treatment availed by child labourers in mining who got sick, selected sites, Municipality of Labo, Camarines Norte

Type of illness	First aid		Outpatient	
	Freq.	%	Freq.	%
Skin diseases (skin allergy, eczema)	42	93.3	3	6.7
Minor respiratory disease (colds, coughs, flu)	24	64.7	13	35.1
Chronic body aches or pains (head, neck, back, hand, wrist, joints)	6	100	0	0
Eye strain or eyesight impairment	0	0	0	0
Hearing impairment	0	0	0	0
Respiratory (asthma, tuberculosis, pneumonia)	0	0	0	0
Gastro-intestinal (ulcer, hepatitis)	0	0	0	0

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 50. Proportion of children's illnesses payment of medical treatment

Type of illness	Source of payment for medical treatment					
	Parent/Guardian		Self		Relatives	
	Freq.	%	Freq.	%	Freq.	%
Skin diseases (skin allergy, eczema)	38	66.7	7	15.6	0	0
Minor respiratory disease (colds, coughs, flu)	27	93.1	12	41.4	0	0
Chronic body aches or pains (head, neck, back, hand, wrist, joints)	3	50	3	50	0	0
Eye strain or eyesight impairment	0	0	0	0	0	0
Hearing impairment	0	0	0	0	0	0
Respiratory (asthma, tuberculosis, pneumonia)	0	0	0	0	0	0
Gastro-intestinal (ulcer, hepatitis)	0	0	0	0	0	0

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 51. Proportion of child labourers' illnesses still being treated at present

Illnesses	Child labourers whose illness is still being treated at present		Child labourers whose illness is not being treated at present	
	Freq.	%	Freq.	%
Skin diseases (skin allergy, eczema)	1	2.2	44	97.8
Minor respiratory disease (colds, coughs, flu)	0	0	37	100
Chronic body aches or pains (head, neck, back, hand, wrist, joints)	0	0	6	100
Eye strain or eyesight impairment	0	0	0	0
Hearing impairment	0	0	0	0
Respiratory (asthma, tuberculosis, pneumonia)	0	0	0	0
Gastro-intestinal (ulcer, hepatitis)	0	0	0	0

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

E. Profile of adult workers engaged in mining

Table 52. Adult workers in mining who were injured and sought treatment

Type of injuries	Adult workers whose injury was treated		Adult worker whose injury was not treated	
	Freq.	%	Freq.	%
Contusions, bruises, hematoma, or abrasion	51	32	108	67.9
Cuts	78	52.7	70	47.3
Wounds or Punctures	89	55.6	71	44.4
Amputations, loss of body parts	1	50	1	50
Crushing injuries	20	32.3	42	67.7
Dislocations, fractures, sprains	7	30.4	16	69.6
Burns	9	37.5	15	62.5
Suffocation	9	20	36	80
Heat related illnesses (Heat stroke, chills)	3	13	20	87

Source of basic data: CBMS-ILO child labour survey, selected barangays, Labo, Camarines Norte, 2018.

Table 53. Type of treatment availed by adult workers in mining who got injured

Type of injuries	First aid		Outpatient		Confinement	
	Freq.	%	Freq.	%	Freq.	%
Contusions, bruises, hematoma, or abrasion	43	82.7	9	17.3	0	0
Cuts	76	95	4	5	0	0
Wounds or punctures	86	94.5	4	4.4	1	1.1
Amputations, loss of body parts	1	100	0	0	0	0
Crushing injuries	8	38.1	13	61.9	0	0
Dislocations, fractures, sprains	5	71.4	1	14.3	1	14.3
Burns	9	100	0	0	0	0
Suffocation	7	77.8	0	0	2	22.2
Heat related illnesses (Heat stroke, chills)	2	66.7	0	0	1	33.3

Table 54. Adult workers in mining who got sick and sought treatment

Type of illnesses	Adult workers whose illness was treated		Adult worker whose illness was not treated	
	Freq.	%	Freq.	%
Skin diseases (skin allergy, eczema)	107	69.9	46	30.1
Chronic body aches or pains (head, neck, back, hand, wrist, joints)	43	37.4	72	62.6
Eye strain or eyesight impairment	7	25.9	20	74.1
Hearing impairment	2	11.1	16	88.9
Respiratory (asthma, tuberculosis, pneumonia)	7	70	3	30
Gastro-intestinal (ulcer, hepatitis)	11	57.9	8	42.1
Minor respiratory disease (colds, coughs, flu)	120	60.9	77	39.1

Table 55. Type of treatment availed by adult workers in mining who got sick

Type of illnesses	First aid		Outpatient		Confinement	
	Freq.	%	Freq.	%	Freq.	%
Skin diseases (skin allergy, eczema)	101	94.4	5	4.7	1	0.9
Chronic body aches or pains (head, neck, back, hand, wrist, joints)	37	84.1	7	15.9	0	0
Eye strain or eyesight impairment	2	28.6	5	71.4	0	0
Hearing impairment	2	100.0	0	0.0	0	0
Respiratory (asthma, tuberculosis, pneumonia)	3	42.9	4	57.1	0	0
Gastro-intestinal (ulcer, hepatitis)	5	35.7	6	42.9	3	21.4
Minor respiratory disease (colds, coughs, flu)	100	82.0	22	18.0	0	0

Annex B
PHOTOS DURING DATA COLLECTION



A 16-year old boy doing Panning, one of the most common activities in surface mining, inside a small creek near the houses. The mercury used in panning was stored in a small cylindrical shaped glass container, which can be reused for another session of panning.


"Akawan" as they locally call the box shaped equipment to filter out the gold is commonly used among surface miners.

An underground miner exiting from their "balon".