ILO/IPEC

Baseline Survey on Child and Adult Workers in Informal Gold and Fluorspar Mining

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of the Mongolian National University

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CONTENTS

LIST OF THE TABLES

LIST OF THE FIGURES

EXECUTIVE SUMMARY

"Baseline survey on child and adult workers in informal gold and fluorspar mining" was conducted with financial assistance from ILO Office for China and Mongolia and the International Programme on the Elimination of Child Labour (ILO-IPEC) and with the professional assistance of the ILO-IPEC Regional SIMPOC expert based in SRO-New Delhi, India.

The main goal of the present survey is to collect data on working condition, income, health and working security of children and adults engaged in informal gold and fluorspar mining and to determine the scope of children and adults engaged in informal gold and fluorspar mining at the national level.

The survey is covered 21 soums from those 348 children and 232 adults engaged in informal gold/fluorspar mining. According to sample estimation, totally 45902 persons engaged in informal gold and fluorspar mining at the national level. Over than 90 percent of those labour forces engaged in informal gold mining only. When age structure is examined, 17.4 percent is children aged 5-17.

The main findings of each survey chapter are presented as follows:

PROFILE OF CHILDREN ENGAGED IN INFORMAL GOLD/FLUORSPAR MINING

Percentage of migrant children is slightly high. Of children engaged in informal gold mining 27.8 percent, one of five children engaged in informal fluorspar mining participated in migration in the last 5 years. Boys engaged in informal gold/fluorspar mining, participate in migration in the last 5 years is to great extent. Also of children engaged in informal gold/fluorspar mining participated in migration on their own. Living in the given soum up to 5 years of children mining gold nearly about half percent and of children mining fluorspar 20 percent haven't a registration at the given soum.

Living conditions of children residing near place of mining is very poor. One of three children mining gold and nearly one of two children mining fluorspar live near the mine, which mines gold/fluorspar throughout the most part of the year. A significant percentage of children working in informal mines (gold mines-19 percent, fluorspar- 16.3 percent) live in a dwelling not suited for housing. Only 7.4 percent of children mining gold and 28.8 percent of children mining fluorspar, who live near mines reported using drinking water from protected wells. A fact that children informally mining gold/ fluorspar live in conditions not meeting hygienic requirements can be seen from a fact that most children live without toilets in the proximity of their housing, and there are no sanitary facilities places.

Of children aged 7-15 one of four children mining gold and one of nine children mining fluorspar do not attend school. Percentage of illiterate children is not low among the children engaged in informal gold/fluorspar mining. Of children aged 7-15, who should get a compulsory education one of four children mining gold and one of night children mining fluorspar do not attend school. The percentage of children not attending school among migrant children mining gold is 3 times higher compared to that of non-

migrant children and for children mining fluorspar it is 5 times higher. Low living standards and poverty in the family are the main reasons for drop out school.

Compared to the children engaged in informal fluorspar mining, the level of medical insurance coverage of children engaged in informal gold is low. Of children mining gold 9.5 percent haven't a birth certificate/ID, 16.5 percent haven't a medical insurance document. The percentage of non-migrant children with documentation is high compared to migrant children, the percentage of those who did not have any documents, especially those who lack medical insurance document, is still high**.**

The main reason for children to work is low living standards poverty of their household. When main 3 reasons for children to engage in informal gold/fluorspar mining are ranked by significance, such reasons as first: to increase the household income, second: to have money of their own, third: because parents are unemployed are prevailing.

There are not a little cases of children work with mercury and explosive items and damaging their health among children in working situation. Carrying water and soil, panning gold, digging for gold, digging holes/ pits, sieving sand and soil are among works mostly carried out by children mining gold. Furthermore, child workers participated in such works as digging mercury (7 percent), amalgamating with mercury (14.2 percent), working with explosive items and chemical substances. Children mining fluorspar are engaged in all kinds of work related to fluorspar mining such as carrying soil, digging holes, carrying fluorspar, carrying ore stones, crushing ore/stones/ fluorspar, digging for fluorspar. Of children mining fluorspar 8.1 percent also carry out works requiring use of explosives.

Half of children mining gold sometimes, regularly work at night. Children continue mining activities at night, of children mining fluorspar 22.1 percent, of those mining gold 33.5 percent sometimes, 15.5 percent regularly work at night.

Boys compared to girls more often work after 9 PM or at night hours. Children working in informal gold mines start work in the morning at about 9 AM and finish work at about 7 PM in the evening. Hours of starting and finishing work are slightly different for boys and girls, i.e. girls start working a little later compared to boys and finish a little earlier. Children working at fluorspar mines start working at about 8-9 AM in the morning and finish at about 7 PM. Boys compared to girls more often work after 9 PM or at night hours. For instance, of boys mining gold 26.2 percent and of boys mining fluorspar 18.5 percent reported finishing work after 9 PM. In mines, the average duration of working hours per day is 8-9 hours, which exceeds hours stated by the law. Boys work longer hours compared to girls. Most children have time for rest during work, but of total boys 8.8-12.2 percent do not have a possibility to rest during work. Boys reported working in mines for in average 4-5 months a year, girls work for in average 3-4 months.

Most of boys mining gold extract more gold and earn more money than girls. Child mining gold extracts in average 6 gram of gold per month, boys 6.1 gram, girls 5.7 gram. When the amount of extracted gold is evaluated in currency, boys earn income of 69.4 thousand MNT a month and girls earn 64.6 thousand MNT. It shows that most of boys mining gold extract more gold and earn more money than girls. As for children mining fluorspar, boys excavate in average 14.3 ton a month, girls 5.1 ton, which is nearly 3

times less than boys and boys earn income of 123.7 thousand MNT a month and girls earn 43.5 thousand MNT.

The highest percentage of children working in gold/fluorspar mining, majority of earned income is expended for household consumption. Of children working at informal gold mining 55.9 percent, 56.2 percent working in fluorspar mining expend for their household consumption. Also of boys working in informal gold mines 25.1 percent and of girls 30 percent, of boys working in fluorspar mining 28.3 percent and girls 49.6 percent hand over 100 percent of their income to the family.

Health status of children engaged in informal gold/fluorspar mining

Of children 29.7 percent have fallen ill while working, at the time of the survey nearly 24 percent of children reported being ill, mostly with respiratory and arthritic genito-urinary system diseases.

While one of seven children working in gold mines have had accidents at the workplace and were injured at some time, one of eight children working in fluorspar mines have had accidents. 43.1 percent of children who fell ill or were injured were not able to access medical services and 21.4 percent of them reported that remoteness from hospitals and clinics was the reason for not getting medical help.

When we clarified if there were any changes in health status of children since they stated working in mines, of children working in gold mines 21.3 percent, of those working in fluorspar mines 21 percent view that their health worsened since they started mining gold and fluorspar.

One in every three of children, who know about labor protection issues is followed some requirements of labor protection. Although only 15.8 percent of children working in gold mines and about 34.1 percent of children working in fluorspar mines reported any knowledge of labor protection issues, about 34.4 percent of these children followed some requirements of labor protection.

Future aspirations of children

While girls working at fluorspar mines all chose the opportunity to study, this indicator is 89.1 percent for girls working at fluorspar mines.

Children engaged in informal gold/fluorspar mining were disinterested in work at mines (53.7 percent of children engaged gold mining, 56.8 percent of children engaged fluorspar mining). This children mining gold/fluorspar were interested in getting basic education, obtaining some profession. Among children engaged in informal gold/fluorspar mining such reasons as being very tired, being not interested in work, having to leave school are the main reasons that affect their disinterest in work. As for children mining gold, the main reason for their interest in work is an opportunity to support their family.

PROFILE OF PARENTS WITH CHILDREN ENGAGED IN INFORMAL GOLD/FLUORSPAR MINING

Majority of household with children working in informal gold/fluorspar mining doesn't have a private livestock. Of households with children mining gold 29.5 percent, of households with children mining fluorspar 15.6 percent have private livestock. By kinds of livestock owned by a household, an average household has mostly sheep, goats, and a few horses and cows

One in every four is migrant household working in informal gold and fluorspar mining. As answers of parents with children engaged in gold mining show, of total households 27.9 percent are migrant households. Of migrant households 41.2 percent are residing here temporarily, the remaining 58.8 percent have lived in the area for less than 5 years. Of total 35 households with children mining fluorspar covered by the survey, 3 live here temporarily, 2 have lived in this area for less than 5 years.

Majority of households move to mine gold and fluorspar. While among households mining gold, the main reason for migration was a wish to work in gold mine (41.2 percent), to increase the household income (27.9 percent), among households mining fluorspar such reasons as improving their livelihood and working at fluorspar mines (33.3 percent each) were prevailing

Income from gold/fluorspar mining constitutes major part in average monthly income of parents with children working in informal gold/fluorspar mining. Asked about the average monthly income of their households, parents with children mining gold reported an average monthly income of 114.906 MNT, and households mining fluorspar 126.500 MNT. Among households, covered by the survey, nearly 70 percent of their monthly income is comprised from income derived from gold/fluorspar mining. More than half percent of parents view that income from gold/fluorspar mining of children make an average contribution to the household livelihood.

Average income of major households is insufficient for their livelihood. Over half of parents mining gold, reported insufficiency of their monthly income to sustain livelihood, 7.4 percent considered it sufficient. As for parents mining fluorspar, nobody gave an answer that their average monthly income was sufficient, 3 in 4 persons considered it insufficient, and one evaluated it as of average sufficiency.

Almost all parents of children working in informal gold/fluorspar mining can access to health services. Of parents 4.9 percent of children working in informal gold mining 3.1 percent of children working in informal fluorspar mining answered that it is not possible to access to health services

Over half of parents accept that their children work in informal gold/fluorspar mining. An issue of concern is that 66.2 percent of parents answered that they accept a fact of their children mining gold/fluorspar.

Totally, four in every five of parents view that working conditions of their children in gold/fluorspar mining as hard and harmful. In parents' view, the main 3 reasons for considering working conditions of children mining gold as hard are as follows: *first,* it is

dusty (78.2 percent), *second,* dangerous/risky (.68.1 percent), *third,* they carry heavy loads (64.7 percent). Parents of children mining gold listed such reasons as *first,* it is dusty, they carry heavy loads (63.3 percent each), *second,* children work in harmful conditions (50.0 percent), *third,* dangerous/risky (43.3 percent).

Parents want to send their children to school . As parents reported, of children mining gold 59.0 percent receive formal schooling and 2.5 percent participate in informal training, the remaining 38.5 percent do not study at school. Another issue to notice is that 92.9 percent of total parents answered that they would withdraw children from their present work if they express a wish to continue studying at school or to enroll at school.

PROFILE OF EMPLOYERS OF CHILDREN ENGAGED IN INFORMAL GOLD/FLUORSPAR MINING

Employers are relatively young and male people. The mean ages of employers mining gold and fluorspar are 34.9 and 35.3. And the majority (76.5 percent of those in gold mining, 80 percent of those in fluorspar mining) of them is men.

Employers in fluorspar mining are employing larger number of people compared to those in gold mining. While one employer in gold mining works together with in average 4.8 persons, a fluorspar miner works with in average 11.1 persons.

There is an attitude to employ family members among the employers. In average 2.3 persons in gold mining and in average 1.6 persons in fluorspar mining work for employers from their families without payment. Of these family members 0.7 (gold miners) and 0.3 (fluorspar miners) are children aged 5-17.

The employers' practices on employing children in gold and fluorspar mining are different. While 70.6 percent of gold mining employers employ only children aged 15-17, 60 percent of fluorspar miners employ children both of 5-14 and 15-17 ages. Moreover, an employer in gold mining employs in average 0.4 children aged 5-14 and 1 child aged 15-17. An employer in fluorspar mining employ in average 1.6 children aged 5-14 and 2 children aged 15-17.

Participation of adults, parents and close people influences on the child's engagement in gold/fluorspar. By the multiple answer, 53 percent of employers in gold mining and 80 percent of those in fluorspar mining hired children through mediation of children's parents or relatives.

There is a fact that employers give children double work. Employers engage children in double unpaid works such as cooking, doing laundry, cleaning house, carrying water/firewood, doing small errands besides the basic kinds of work such as digging holes/soil, carrying water/soil, panning gold, sifting soil. While the participation in basic kinds of work is high among boys aged 15-17, unpaid work is mostly carried out by girls.

Employers employ children for a longer duration, which had been pointed out in a article of the Labor Law. Employers in gold mining employ children for in average 7 days a week, while fluorspar miners employ those 6.4 days. Also, for employers in gold mining, the mean working hours of children per day was 9 hours, and for the employers in fluorspar mining, it was 7.2 hours.

There is a fact of employing children without payment among employers. Of total employers 27.3 percent reported not paying any payment for child work. The percentage of employers paid wages in cash is the highest among those who employ children 15-17. On the contrary, the percentage of employers who paid wages in a non-cash form is the highest (28.6 percent) among those who employ children aged 5-14. Employers view labors of children engaged in informal gold/fluorspar mining relatively differently and boys' labor is evaluated more than girls.

Level of labor contract/agreement between the employer and child is inadequate. Of total employers in gold mining 85.3 percent, of employers in fluorspar mining 40 percent do not have any contract/agreement with a child he/she employs, the rest have an oral agreement.

Employers' attention towards working condition and social security of children is insufficient. Of gold miners 52.9 percent, of fluorspar miners 40 percent reported not providing children with working clothes or protective devices. Moreover, 47.1 percent of gold miners, 10 percent of fluorspar miners don't provide children with opportunity to attend school, or views that it is unnecessary since children do not study at school. When children fell ill, 8.8-20 percent of employers doesn't provide any assistance.

Employers' knowledge about the child labor is inadequate. Of total employers, only 1/3 knows the minimum age approved by the law for a child to enter labor relations. This knowledge is lowest among employers, who are gold mining, aged under 35, women and working in this field for less than 2 years.

PROFILE OF ADULTS ENGAGED IN INFORMAL GOLD/FLUORSPAR MINING

The majority of adult population engaged in informal gold mining sector. In total 37906 adults engaged in informal gold/fluorspar mines, of which 89.6 percent are engaged in gold mining, the remaining 10.4 percent work in fluorspar mines.

The age of adults working in informal gold/fluorspar mining is relatively young. The average age is 31.3 among workers of gold mines and 35.0 among those who work in fluorspar mines. As for sex, the number of men working in informal gold/fluorspar mines is greater than that of women.

Over half of the adult miners have lived for 5 and over years in the soum, where they conduct mining activities. Of adult miners 18.2 percent have lived up to 5 years in the soum, where they conduct mining activities, 56.9 percent have lived for 5 and over years, the remaining 24.9 are temporary residents.

By the profile of migrants, family migration dominates. Migrants engaged in informal gold mining mostly participate in migration with their own families, namely, the husband/wife and children. In fluorspar mines workers moved on their own or the couples moved together. Of migrants only half got a registration in the soum they work and live in. Of gold miners 29.7 percent, of fluorspar miners 23.4 percent have previously worked in gold/fluorspar mining.

There are a number of adults wishing to move to a place other than present one. Of informal gold miners 30.5 percent, of fluorspar miners 43.8 percent wish to move to a place other than the present one. The percentage of men who working in fluorspar mines wishing to move is greater than that of women.

Over half of the fluorspar miners live in proximity of the mine. Of informal gold miners 49 percent and of fluorspar miners 75.8 percent reside in the proximity of the mine or in the place where they mine gold/ fluorspar.

Drinking water supply is more problematic among informal gold miners. Of those engaged in informal gold mining only 12.3 percent, of those working in fluorspar mines 10.8 percent reported using secure drinking water at their work place.

Informal gold mines are making a transition to a small settlement form. While 85 percent of gold miners replied that there are some kinds of services in the proximity of informal gold mines, 36.2 percent of informal workers in fluorspar mines gave such an answer. Informal gold mines workers can access such service as ger shops (78.5 percent), transport (62.4 percent) and small private services (39.6 percent). In some places even medical services are provided.

There are a number of adults, who are engaged in other kinds of activities besides informal gold/fluorspar mining. One in every 10 adults in places with informal mining are engaged in such business as providing private services: operating ger shops (26.1 percent), a hairdresser's or a cafй (68.2 percent). Only 50 persons or 1.3 percent of workers working informally in fluorspar mines (who is engaged in small private business) gave such an answer.

Two fifths of total adults working in informal mining sector work all year round. The percentage of those who work in gold mines when they need a large amount of money or during their holidays is quite high compare to fluorspar miners.

The average duration of a working day is higher among gold miners. The average duration of a working day in the week prior to the survey was similar, it was nearly 5.5 days among gold as well as fluorspar miners. When the average duration of a working day in the last week of work was examined, while gold miners worked for 9.9 hours, among fluorspar miners the average working day was shorter by 1.4 hours, or it was 8.5 hours.

Among young people under 30 years old working informally in gold/fluorspar mines the level of knowledge is considerably low. While 65.9 percent of informal workers in gold mines and 41.3 percent of informal workers in fluorspar mines reported lack of any knowledge on safety of mining operations and hygienic standards for mining. Only 21.4 percent of adult miners have received some information about safe operations and hygienic requirements in mining.

More men than women had accidents in mines. Of adults engaged in informal gold mining 13.8 percent, of those working in fluorspar 12.1 percent had accidents, while working in mines. Most of those who had accidents fell down into pits, and received medical assistance in soum clinics.

More women than men reported that there were changes in their health status since they started working in mines. Of informal gold miners 41.3 percent (43.9 percent of women and 40.1 percent of men), of those working in fluorspar mines 17.3 percent (26.9 percent of women and 9.4 percent of men), answered that there were changes in their health status since they started working in mines. Over 80 percent of adults engaged in informal gold/fluorspar mining are covered by medical insurance and have the documents, about 1/4 of them have not paid their insurance fees.

Consumption of alcoholic is widespread among informal gold/fluorspar miners. The percentage of young people aged 25-34 reported alcohol consumption, which is the highest compared to other age groups.

An average monthly income of workers in gold mines is higher than that of workers in fluorspar mines. Informal gold miners mine in average 4.758 gram of gold a week and earn 119026 MNT a month, fluorspar miners mine in average 5287.5 kg a week and earn an income of 122214 MNT a month.

Over 40 percent of adult miners live in informal gold/fluorspar mining areas with children under 18 years old. While 28.1 percent of adults replied that children living together with persons engaged in informal mining participate in mining. Of adults 76.2 percent view that children working in gold/fluorspar mines should not be allowed to do such kind of work and should be withdrawn from such work.

Over half of adult miners intent to continue informal gold/fluorspar mining activities. Of adult miners 52.9 percent intend to continue informal gold/fluorspar mining activities.

About 40 percent of adult miners view that informal gold/fluorspar mining should be coordinated with assistance of special laws and regulations. Respondents view that in order to improve the present situation of informal gold/fluorspar miners the government first of all should give them a permission to work in this field, to conduct activities directed towards improving health status, working conditions, labor protection of miners, to take measures on monitoring and organization of labor.

CHAPTER 1. INTRODUCTION

1.1 Justification

One of the changes in the employment sector, which took place due to transition to the market economy relations, is emergence of informal sector[3], its fast development and expansion to one of labor sectors presently sustaining the livelihood of population[4]. The results of the "Survey on Labor Force" conducted by the National Statistical Office in 2003, show that in total 460300 persons work in the non-agricultural *informal sector* at the national level. Although we do not have research data which separately determines the number of persons, who are engaged in informal gold and fluorspar mining, not only adults, but also children are attracted in great number into this sector and it has become the main source of livelihood for a significant part of population.

Despite a fact that the informal sector appears to support employment of population, increase their income and contribute in certain measure to poverty alleviation, in the same measure it creates hidden or shadow economic activity. That is why the ILO made a recommendation to regularly collect quantitative data about informal sector as part of total statistical data. By collecting regularly quantitative data about informal sector we have an opportunity to determine the scope, the size and the profile of the informal sector, to evaluate it and to conduct related policies and activities.

A fact that persons engaged in informal gold and fluorspar mining work in an environment, which does not meet minimal hygienic and work security requirements, and that their opportunities to access health, education, and cultural services are limited, illustrates a need to develop related policies and conduct necessary activities in this field.

1.2 Survey goals and research issues

The main goal of the present survey is to determine the scope of children and adults engaged in informal gold and fluorspar mining and to collect primary data showing objective situation in the employment of children and adults engaged in informal gold and fluorspar mining. We also aimed to determine perceptions and attitudes of parents and employers of children engaged in informal gold and fluorspar mining on child labor, and reflect public perceptions on regulation of this kind of labor.

The present survey is implemented in the frame of the following basic issues:

- The structure of households, residing at the bagh area, where informal gold and fluorspar mining is being carried out or at the mining place, their profile and migration, employment and school attendance of persons living in baghs where informal gold/fluorspar mining is being carried out;
- Profile of children engaged in informal gold and fluorspar mining, their education, health, migration, work conditions, income and work security issues;
- Profile of households whose children are engaged in informal gold and fluorspar mining, perceptions and attitudes of parents whose children work in the mining on child labor and their education;
- Profile of employers of children engaged in informal gold and fluorspar mining, attitudes of employers towards child labor;
- Profile of adults engaged in informal gold and fluorspar mining, their education, migration, work conditions, income, health and work security issues;

[3] See the definition in the survey methodology part
[4] MoFE, UNDP, 2004

- Attitudes and perceptions of general public on child labor, especially regulation of labor issues of children engaged in informal gold and fluorspar mining.

1.3 Structure of the report

The report of the "Baseline survey on child and adult workers in informal gold/fluorspar mining" consists of 8 basic chapters. Chapter 1 presents justification of the survey and its goals and objectives. Chapter 2 introduces research methods and methodology; Chapter 3 shows the profile of population and households residing in baghs where informal gold/fluorspar mining is being carried out. Profile of children engaged in informal gold and fluorspar mining, their present and past employment, work conditions; income and problems faced by them are described in Chapter 4. Chapters 5 and 6 examine perceptions and attitudes of parents and employers towards children engaged in informal gold and fluorspar mining. Chapter 7 studies issues of adults engaged in informal gold and fluorspar mining and the last chapter presents main conclusions of the present survey and its recommendations.

CHAPTER 2. SURVEY METHODOLOGY

The resolution approved by the 15th International Conference of Labor Statisticians organized by the ILO in January 1993 gave a definition of the *informal sector* as the one, which consists of production and service enterprises aiming to create workplaces and income sources with regard to private interests. Production and services in informal sector operate in the form of a small household economy which lack labor and capital distribution or have them in a very small measure.

Among the informal sector, informal gold mining sub-sector is already very large for a country with Mongolia's small population, and is expanding rapidly. Informal mining is from both alluvial (from here on referred to as 'placer') and rock deposits, and takes place in many aimags. A report by the Mongolian Business Development Agency and Eco-Minex International estimates that there are already about 100000 people involved in informal gold mining, or 20 percent of the rural workforce[5].

In the survey, *household* is a group of persons normally living together and taking food from a common kitchen at the survey time. The members of a household may or may not be related by blood to one another.

Children aged 5-17 and engaged privately in gold or fluorspar mining, one type of informal sector aiming to create income sources with regard to private interests is included into a category of *child workers* in informal gold/fluorspar mining.

Adult workers in informal gold/fluorspar mining are adults aged 18 and over and engaged privately in gold or fluorspar mining, one type of informal sector aiming to create income sources with regard to private interests.

Persons who resided in the place where the survey was conducted for 5 or less years or temporary residents are included in the *migrant* category. Persons who resided in the place where the survey was conducted for 5 or over years or permanent residents who have lived there from their birth are included in the category of *non-migrants.*

In our survey, persons aged 18 or over, who employ in informal gold/ fluorspar mining on the basis of labor contracts or without them children younger than 18 years old, placing them under their direct supervision or persons, who participate in management and organization of work of children younger than 18 and play the main role in making decisions related to work, are defined as "employers".

Qualitative and quantitative research methods were used in the "Baseline survey on child and adult workers in informal gold/fluorspar mining".

[5] PTRC, ILO "Baseline Survey on Informal Gold Mining in Bornuur and Zaamar Soums of Tuv aimag", 2004

2.1. Quantitative research methods

2.1.1 Sampling methods

In Mongolia administrative wards are as follows: 21 aimags are sub-divided into soums which are further sub-divided into baghs. From total 332 soums in 21 aimags[6] in Mongolia informal gold mining is being carried out in 46 soums and informal fluorspar mining in 11 soums. The above 57 soums are covered by the survey sampling.

Sample size

Due to insufficiency of research and statistics on population engaged in informal gold/fluorspar mining at national level, there was a shortage of statistics required in order to determine the sample size. As results of the 2004 "Survey on Child Labor in Mongolia" show, 68580 children aged 5-17 are economically active at the national level, which accounts for 10.1 percent of total children of that age. It was determined that of total children, who were economically active at that time, 0.8 percent worked in mining sector. However, it is impossible on the basis of these figures to determine directly the number of children who are engaged in informal gold/fluorspar mining. Although at the national level 23300 persons aged 15 and over work in mining sector[7], it is impossible to conclude directly that these people work in informal sector.

That is why in total 21 soums, from each soum 2 baghs where informal gold and fluorspar mining is being carried out [8] were selected, and 12 children and 8 adults from each bagh were covered by the present survey.

Sampling design

A three stage sampling design was used in the survey. The unit of the first stage is **soums** where informal gold/fluorspar mining is being carried out, the unit of the second stage is **baghs** with and without concentration of informal gold/ fluorspar mining in selected soums, the unit of the third or the last stage are **children** and **adults** who are engaged in informal gold/fluorspar mining in selected baghs.

Characteristic of interest or intensity of informal gold and fluorspar mining for each soum is relatively different. That is why we did a *stratification* on the basis of concentration of population engaged in informal gold/fluorspar mining When the number of population engaged in informal gold mining in the selected soum was over 500, it was viewed as a soum with concentration, when the number of persons engaged in informal fluorspar mining was over 80 it was considered as with concentration. Table 2.1 shows soums where informal gold/fluorspar mining is being carried out by stratums.

[6] The capital city of Ulaanbaatar not included
[7] NSO, "Baseline survey on labor force", 2004
[8] See the methodology for the second stage of sampling

Table 2.1 **Soums with informal gold/fluorspar mining by stratums**

#	Soums in each stratum
STRATUM 1: Soums with concentration of informal gold mining	
1	**Bumbugur,** Bayankhongor
2	**Galuut,** Bayankhongor
3	**Norovlin,** Khentii
4	**Zaamar,** Tuv
5	**Uyanga,** Uvurkhangai
STRATUM 2: Soums with concentration of informal fluorspar mining	
1	**Darkhan**, Khentii
2	**Airag,** Dornogovi
3	**Urgun,** Dornogovi
STRATUM 3: Soums without concentration of informal gold mining	
1	**Erdenetsogt,** Bayankhongor
2	**Shinejinst,** Bayankhongor
3	**Ulziit,** Bayankhongor
4	**Jargalant,** Bayankhongor
5	**Baatsagaan,** Bayankhongor
6	**Bayan-Ovoo,** Baynakhongor
7	**Bayanlig,** Bayankhongor
8	**Bat-Ulzii,** Uvurkhangai
9	**Baruunbayan-Ulaan,** Uvurkhangai
10	**Nariinteel,** Uvurkhangai
11	**Taragt,** Uvurkhangai
12	**Tugrug,** Uvurkhangai
13	**Jargaltkhaan,** Khentii
14	**Tsenkhermandal,** Khentii
15	**Murun,** Khentii
16	**Gurvantes**, Umnugovi
17	**Tsogt-Ovoo,** Umnugovi
18	**Manlai,** Umnugovi
19	**Sevrei,** Umnugovi
20	**Bornuur,** Tuv
21	**Jargalant,** Tuv
22	**Sergelen,** Tuv
23	**Sumber,** Tuv
24	**Khatanbulag**, Dornogovi
25	**Ulziit**, Dundgovi
26	**Tuvshinshiree**, Sukhbaatar
27	**Buregkhangai**, Bulgan
28	**Teshig**, Bulgan
29	**Shariingol**, Darkhan-Uul
30	**Tonkhil**, Govi-Altai
31	**Sharga**, Govi-Altai
32	**Bayandun**, Dornod
33	**Bulgan,** Dornod
34	**Tariat**, Arkhangai
35	**Tsenkher**, Arkhangai
36	**Yoruu**, Selenge
37	**Mandal**, Selenge
38	**Bayangol**, Selenge
39	**Tarialan,** Uvs
40	**Turgen,** Uvs
41	**Tsagaankhairkhan**, Uvs
STRATUM 4: Soums withour concentration of informal fluorspar mining	
1	**Galshar,** Khentii
2	**Berkh/Batnorov,** Khentii
3	**Delgerkhangai**, Dundgovi
4	**Munkhkhaan**, Sukhbaatar
5	**Uulbayan**, Sukhbaatar
6	**Tsengel**, Bayan-Ulgii
7	**Dalanjargalan**, Dornogovi
8	**Ikhkhet**, Dornogovi

Source: Data by statistical departments of aimags in July, 2005

First stage of sampling

Considering the proportional representation and double weightage to the smaller strata subject to a minimum of 2 soums in a stratum, the following estimation of sample soums to different strata has been made.

Table 2.2. **Number of selected soums at the first stage by stratums**

	Startums	Number of soums with informal mining in the stratum	Number of soums with informal fluorspar mining in the stratum	Number of selecting soums with informal gold and fluorspar mining from each stratum
1	Soums with concentration of informal gold mining	5	-	**3**
2	Soums with concentration of fluorspar mining	-	3	**2**
3	Soums without concentration of informal gold mining	41	-	**13**
4	Soums without concentration of informal fluorspar mining	-	8	**3**
	Total	**46**	**11**	**21**

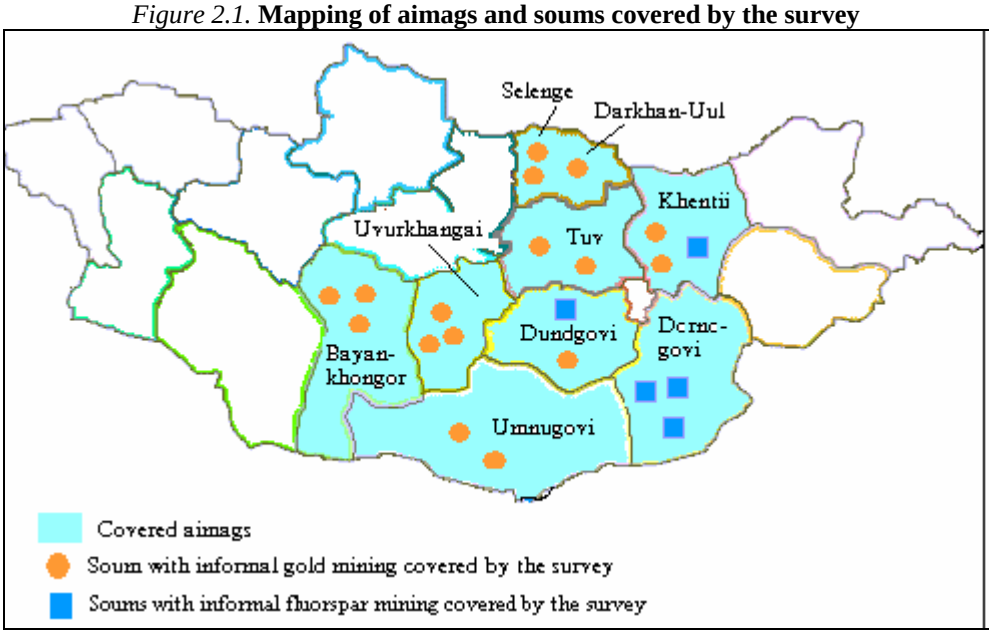
Soums in each stratum were selected separately by simple random sampling without replacement. Table 2.3 shows selected soums with informal gold and flourspur mining at the first stage of sampling.

Table 2.3. **List of selected soums at the first stage**

	Aimags	Selected soums with gold /flourspur mining	Stratum number
1	Bayankhongor	Bayan-Ovoo	**3**
		Buutsagaan	**3**
		Bumbugur	**1**
2	Uvurkhangai	Uyanga	**1**
		Taragt	**3**
		Bat-Ulziit	**3**
3	Khentii	Tsenkhermandal	**3**
		Darkhan	**4**
		Murun	**3**
4	Dornogovi	Airag	**2**
		Urgun	**4**
		Dalanjargalan	**2**
5	Umnugovi	Tsogt-Ovoo	**3**
		Servei	**3**
6	Selenge	Mandal	**3**
		Bayangol	**3**
7	Darkhan-Uul	Shariin gol	**3**
8	Tuv	Zaamar	**1**
		Sergelen	**3**
9	Dundgovi	Ulziit	**3**
		Delgerkhangai	**4**
	Total	**21**	

Figure 2.1 shows mapping of aimags and soums covered by the survey.

Figure 2.1. **Mapping of aimags and soums covered by the survey**



Second stage of sampling

The second stage of sampling was conducted upon arrival at the selected soum. Researchers went to the soums selected at the first stage of sampling and divided baghs to the following sub-stratums on the basis of the jurisdiction of the mining place where informal gold/fluorspar mining is being carried out.

- Sub-stratum 1: baghs with concentration of informal gold/fluorspar mining
- Sub-stratum 2: baghs without concentration of informal gold/fluorspar mining
- Sub-stratum 3: baghs without informal gold/fluorspar mining (in other words there is no any mining place)

After that, one bagh was selected from each of the first and the second sub-stratums for the second stage of sampling by use of random sampling method. When in the selected soum 1 or 2 baghs where informal gold/fluorspar mining was being carried out were located, these baghs were selected directly and as for 2 baghs with informal gold/fluorspar mining the concentration indicator was calculated for each bagh. When informal gold/fluorspar mining was being carried out in 3 and over baghs in the selected soum, concentration in each of them was determined and 2 baghs with large and small concentration were selected randomly. According to above sampling 29 baghs were selected at the second stage of sampling.

Third stage of sampling

In each of the selected baghs, all households residing in mining place and some households residing in bagh area were listed by administering a *household listing questionnaire* in order to prepare separate sampling frames at bagh level for children and adults working in informal gold and fluorspar mining. Using simple random sampling method 12 children and 8 adults (totally 348 child workers, 232 adult workers) from each bagh were selected to be covered by the survey.

2.1.2 Sample weight and estimation methodology

The sample weight is inverse measurement of selection probability. The sample weight is not self-weighting and therefore it is necessary to compute weight in each primary sample units and these weights have to be used in estimation.

The survey estimation was done in order to determine the number of children and adults engaged in informal gold/ fluorspar mining and the sample weight was used in estimation. The following formula (2.1), which took into account the sampling methodology, was used in calculating the sample weight.

$$\bar{Y}_t = \sum_{s=1}^{5} \frac{Nts}{n_{ts}} \sum_{i=1}^{n_{ts}} \sum_{j=1}^{2} \frac{M_{tsij}}{m_{tsij}} \sum_{k=1}^{m_{tsij}} \frac{H_{tsijk}}{h_{tsijk}} \sum_{k=1}^{m_{tsij}} \frac{C_{tsijk}}{c_{tsijk}} \sum_{l=1}^{c_{tsijk}} y_{tsijkl} \quad (2.1)$$

Where:

s= subscript of the s-th stratum
t = subscript of the t-th mining type
i = subscript of the i-th soum
j= subscript of the j-th sub-stratum
k= subscript of k-th bagh
l= subscript of l-th sampled population
N= the total number of soums in the selected stratum
n= the number of selected soums
M= the number of total baghs in the sub-stratum
m= the number of baghs selected from the sub-stratum
H= the number of total households in the selected bagh
h= the number of total listed households in the selected bagh
C= the number of total population engaged in a mining type listed in a bagh
c= the number of total population selected for the survey/surveyed for a bagh
y= observed value of characteristics

According to above formula, we estimated number of child and adult workers in informal gold or fluorspar mining at the national level. Table 2.4 shows summary of the workers surveyed and their estimated numbers by some important characteristics.

At the national level 7996 children aged 5-17 are engaged in informal gold/ fluorspar mining. Of these children those who are engaged in gold mining account for 91.4 percent, and children from households residing in soums with gold/ fluorspar mining or close to mining place widely participate in this kind of labor. A fact that 2162 children aged 5-17 who are engaged in gold/ fluorspar mining have lived in the selected soum for less than 5 years shows that migration with a purpose of working in mining place is widespread. In total, 2572 children do not study at school and are engaged in gold/ fluorspar mining and the number of children who are working in mining place along with studying at school is more than twice higher than that.

As results of estimation show in total soums where informal gold/fluorspar mining is being carried out 37906 adults aged 18 and over are engaged in informal gold/ fluorspar mining. The majority of them are men engaged in gold mining. In comparison to children migration with a purpose of engaging in informal gold/ fluorspar mining is very popular among them and residence close to mining place is more widespread.

Table 2.4. **Number of sample and estimated workers by selected characteristics**

Selected characteristics	Children		Adults	
	Sample num	Estimated num	Sample number	Estimated number
ex				
Male		6562	158	25373
Female	82	1434	74	12533
Mining type				
Gold	288	7309	192	33960
	60	687	40	3946
	151	2814	132	19636
	178	4890	80	13916
Other soum, aimag	19	292	20	4354
Migration status				
	97	2162	91	16345
Non migrant	251	5834	141	21561
Whether study at school				
Yes	237	5424	-	-
No	111	2572	-	-
Total	**348**	**7996**	**232**	**37906**

Totally, 9400 children aged 0-6 or children at pre-school age are in baghs, where informal gold/fluorspar mining is being carried out at the national level. Out of them 23.9 percent or 2245 children (6011 children aged 0-4 are in baghs and of them 24.5 percent or 1471 children) are living in mining place at the survey time.

2.1.3 Questionnaires

Quantitative data was collected with use of following different questionnaires:

1. Questionnaires for household listing
2. Questionnaires for children engaged in informal gold/fluorspar mining
3. Questionnaires for parents of children engaged in informal gold/fluorspar mining
4. Questionnaires for employers of children engaged in informal gold/fluorspar mining
5. Questionnaires for adults engaged in informal gold/ fluorspar mining

Members of the research team implementing the survey, the ILO staff in Mongolia and the Regional SIMPOC Expert, ILO based at SRO-New Delhi, India cooperated in development of questionnaires.

The household listing questionnaire includes all households residing in mining place and some households residing in bagh area of the all sample baghs. These questionnaires were used to determine the total population engaged in informal gold/fluorspar mining. Questionnaires for children engaged in informal gold/ fluorspar mining, for their parents and employers were developed in order to evaluate and draw conclusions in a comprehensive way on the profile of children working in mining, their employment, work conditions, problems faced by them, work security issues. The number of units covered by each questionnaire is shown in Table 2.5.

Table 2.5 **Survey coverage**

	Type of questionnaires	Number of covered units
1	Household listing questionnaire	
	Number of households	2592
	Total number of population	11252
2	Child questionnaire	348
3	Parent questionnaire	154
4	Employer questionnaire	44
5	Adult questionnaire	232

2.1.4 Data collection and processing

The PTRC lecturers, researchers, BA and MA students majoring in Demography participated in the survey data collection. Totally, 8 team leaders and 33 interviewers between September 9, 2005 and September 29, 2005 implemented data collection. In order to evaluate implementation of duties by team leaders and interviewers and to improve quality of data collection, monitoring was conducted in Khentii and Tuv aimags.

Quantitative data was computerized with use of the ISSA software and the SPSS software was used to make a statistical analysis of the survey data and processing the survey data. The simple descriptive statistical method and the comparative statistical method were widely used to analyze quantitative data.

2.1.5 Limitations of the survey

Main characteristic of "Baseline survey on child and adult workers in informal gold/fluorspar mining" is sample estimation of number of child and adult workers engaging in informal gold and fluorspar mining, one of the main types of informal sector at the national level. The fieldwork was conducted after beginning of new academic year. During this time, lot of movement of people and vice versa take place. This movement may be influenced to the coverage of the interviews compare than other summer months.

Further, it was not possible to collect data using household listing questionnaire from all households in the all sample baghs. Therefore, in order to list all miners, we collected data from all households residing in mining place and some households residing in bagh area. For incomplete coverage of households in the sample baghs where informal gold/fluorspar mining is being carried out, correction factors have been used in the sample estimation.

2.2 Qualitative research methods

Qualitative survey methods were also used in the "Baseline survey on child and adult workers in informal gold/fluorspar mining". Administrative workers, managers, citizens, employers, teachers, polices, medical workers and social workers were covered by qualitative survey or group discussions. Group discussions aimed to determine public views on the issue of working children, among them children engaged in informal gold/ fluorspar mining, on improving their working conditions and school attendance, on activities and measures directed towards regulation of this kind of work.

Data in the frame of the following basic issues was collected during group discussions:

- Legal regulation, resources and opportunities to fight child labor;

- Efficiency of measures taken in order to eliminate child labor and of legal regulation;
- Changes in child labor, its evolution, expansion, its widening frame;
- Changes/dynamics in child employment in urban-rural areas, migration of children working in gold/ fluorspar mining;
- Changes/dynamics in child and adult labor and employment in urban- rural areas
- Views of participants on child labor and need of fighting it, methods required to eliminate child labor, a coordinating mechanism;
- Objective examples and facts of "providing" education, health, loans and assistance and other social services to children and their families, preparedness for conducting such activities;
- Objective examples and facts of providing children with protective clothes and tools in order to improve their health status and safety, preparedness for conducting such activities, resources and opportunities.

Qualitative data were processed with a simple consolidation method and included in the survey report by type of boxes.

CHAPTER 3. PROFILE OF HOUSEHOLDS AND PERSONS RESIDING IN BAGHS WHERE INFORMAL GOLD/FLUORSPAR MINING IS BEING CARRIED OUT

This chapter will describe the age and sex structure of persons residing in baghs where informal gold/fluorspar mining is being carried out, its migration, employment in the mines and school attendance of children of school age. Attention was paid to existence of registration of households, their location, the household size[9] and the number of household members working in the mines.

3.1 Profile of households residing in baghs where informal gold/fluorspar mining is being carried out

"Baseline survey on child and adult workers in informal gold/fluorspar mining" is a survey covering 19805[10] households from 21 soums, where informal gold/fluorspar mining is being carried out. Of total households 35.9 percent reside in mining place and 64.1 percent live in the bagh area. Profile of the households is shown in Table 3.1.

Table 3.1. **Percentage distribution of households by selected characteristics, according to location of households**

Selected characteristics	Location of households		All
	Mining place	Bagh area	
Household size			
1	5.3	3.5	4.2
2-3	36.1	24.1	28.4
4-6	42.4	61.1	54.4
7-9	12.1	11.0	11.4
10 and over	4.1	0.3	1.6
Mean	*4.40*	*4.44*	*4.42*
Total number of persons working in gold/fluorspar mining of household			
None	3.1	19.2	13.4
1	11.8	23.3	19.2
2-3	50.7	47.3	48.5
4-5	21.7	9.1	13.6
6 and over	12.7	1.1	5.3
Mean	*3.28*	*1.78*	*2.32*
Registration status in the soum			
Yes	39.5	97.1	76.4
No	60.5	2.9	23.6
Total	**100.0**	**100.0**	**100.0**
Estimated number of households	**7111**	**12694**	**19805**

When the household size is examined by location, the percentage of households with 4 and over members living in bagh area is by 13.8 points greater than that of households with the same number of members living in mining place. The average number of members in the household is 4.42, which is an indicator quite close to the national average and no substantial differences were observed by location. In other words, the

[9] The number of total members of the household.
[10] Estimated number of households

average number of members from households living in mining place or those living in the bagh area differs only by 0.04 points.

Of households living in mining place covered by the survey 3.1 percent do not have any household members engaged in informal gold/fluorspar mining, whereas about 1/5 of households living in the bagh area do not have any members working in mines. In relation to that, of total members (4-5) of households living in mining place 3-4 are engaged in informal gold/fluorspar mining. Of 4-5 (4.44) members of a household living in the bagh area 1-2 (1.78) are engaged in informal gold/fluorspar mining. It shows that the majority of households living in mining place are engaged in this kind of work.

Although little over than 3 in every 4 households (76.4 percent) are registered at the soum, this number differs significantly by location. For instance, 3/5 of households residing in mining place lack the registration, while nearly all households living in the bagh area have registration. It can be concluded that persons and households, who moved from other aimags and soums and who are more actively engaged in informal gold/fluorspar mining, reside in mining place.

3.2 Profile of persons residing in baghs where informal gold/fluorspar mining is being carried out

According to estimation, in total 87617 persons from 19805 households were covered by the present survey. Of total persons men constitute 55 percent, women constitute 45 percent. Table 3.2 shows persons residing in bagh with informal gold/fluorspar mining by aimags.

Table 3.2. **Percentage distribution of population by sex, according to aimags**

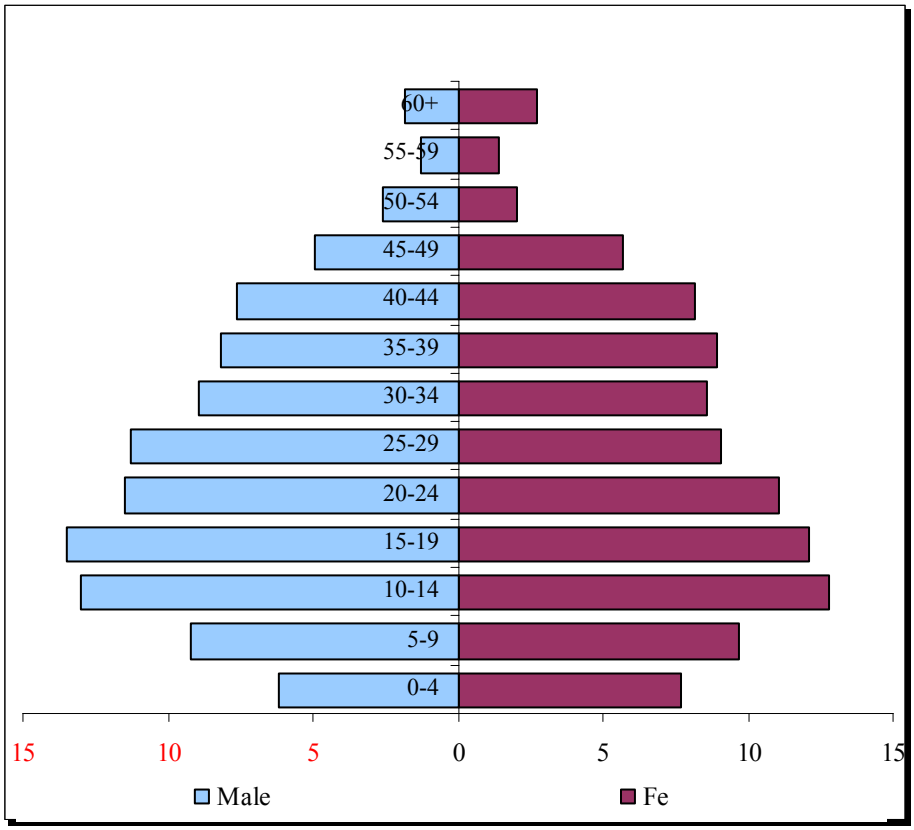
Aimags	Sex		Total	Estimated number of population
	Male	Female		
Bayankhongor	49.9	50.1	**100.0**	**11778**
Uvurkhangai	57.9	42.1	**100.0**	**17998**
Tuv	61.9	38.1	**100.0**	**6190**
Umnugovi	59.1	40.9	**100.0**	**4423**
Darkhan-Uul	52.5	47.5	**100.0**	**8642**
Selenge	51.8	48.2	**100.0**	**26413**
Dornogovi	78.6	21.4	**100.0**	**3581**
Dundgovi	52.3	47.7	**100.0**	**2975**
Khentii	51.1	48.9	**100.0**	**5617**
All	**55.0**	**45.0**	**100.0**	**87617**

From Table 3.2, we can see persons residing in baghs where informal gold/fluorspar mining is being carried out of Bayankhongor, Uvurkhangai and Selenge aimags have the greatest shape compared to other aimags. For instance, of total persons residing in baghs where informal gold/fluorspar mining is being carried out 30.1 percent is persons covered from Selenge aimag and it is 9.6-26.7 points higher than that of persons from other aimags. However, persons residing in baghs where informal gold/fluorspar mining is being carried out of Dornogovi, Dundgovi and Umnugovi aimags have lowest shape.

The sex ratio of persons residing in baghs where informal gold/fluorspar mining is being carried out is 122, i.e. nearly 122 men for 100 women. Although in all aimags number of

men is more than women. Especially, for Dornogovi aimag number of men is 3.7 times higher than number of women. We can show that difference in sex ratio is very slight in Bayankhongor aimag or number of men and women is most similar compared to other aimags.

Figure 3.1 shows the age and sex structure of persons residing in baghs where informal gold/fluorspar mining is being carried out in the form of a pyramid[11].



When the general shape of the age and sex pyramid of persons residing in baghs where informal gold/fluorspar mining is being carried out is examined, it is observed that persons aged 10-29 participated in greater proportion.

When sex ratio is examined by age group, number of women is more than men in 0-9, 35-49 and 55 and over and number of men is more than women in other age groups.

Some main indicators determining the age structure of persons residing in baghs where informal gold/fluorspar mining is being carried out are shown in Table 3.3.

Half of persons residing in baghs where informal gold/fluorspar mining is being carried out is younger than 23 years old and the rest is older than 23. No difference was observed in the median age by sex. The total dependency ratio is 45.7, which shows that social and economic impact depending on the age structure is relatively low. In other words, 100 persons of labor age have a duty to "feed" on average 46 persons of non-labor age. Because of the young age structure of total dependency ratio the child dependency ratio accounted for about 93 percent.

[11] Pyramid is drawn by percent distribution.

Table 3.3. **Percentage distribution of population by selected indicators of age structure, according to sex**

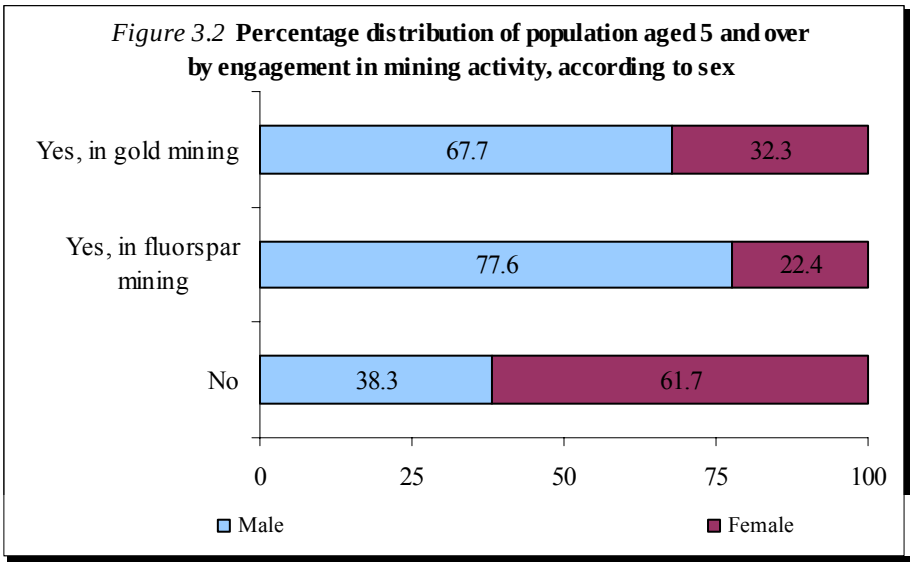
Indicators of age distribution	Sex		All
	Male	Female	
Young age (0-14)	28.4	30.2	29.2
Labour age (15-59)	69.7	67.3	68.6
Old age (60 and over)	1.9	2.5	2.2
Total dependency ratio	*	*	45.7
Child dependency ratio	*	*	42.5
Elderly dependency ratio	*	*	3.2
Mean age	*24.98*	*24.89*	*25.10*
Median	*23.00*	*23.00*	*23.00*
Total	**100.0**	**100.0**	**100.0**
Estimated number of population	**48204**	**39413**	**87617**

**- It is not useful to calculate dependency ratio by sex.*

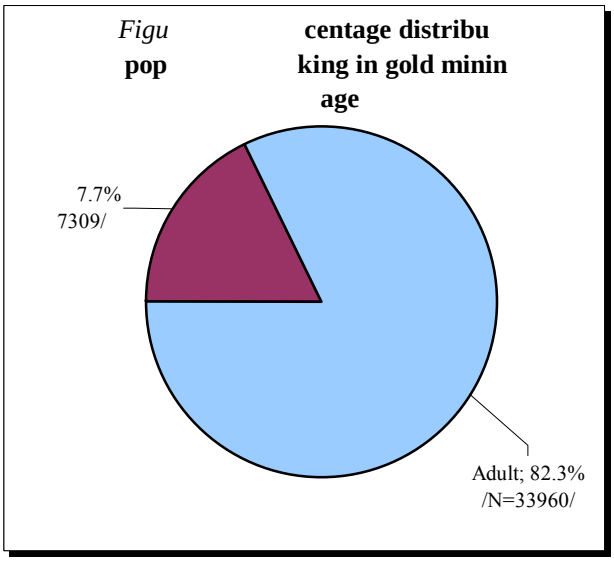
The employment status of total persons aged 5 or more was determined by such basic criteria as engaged in informal gold mining, engaged in fluorspar mining, not engaged in this kind of labor. Of 81606 persons aged 5 and over years old residing in baghs where informal gold/fluorspar mining is being carried out 50.5 percent or 41269 persons are engaged in informal gold mining, 5.7 percent or 4633 persons are engaged in informal fluorspar mining and 43.8 percent or 35704 persons are not engaged in such kind of labor.

Following results were received after analysis of their sex structure. (See Figure 3.2) As the result shows, mostly men engage in informal gold/fluorspar mining activities. Especially the number of men engaged in informal fluorspar mining is 3.5 times higher than that of women. The percentage of male persons who do not engage in informal gold/fluorspar mining activities is 23.4 points lower than that of female persons.

Figure 3.2 **Percentage distribution of population aged 5 and over by engagement in mining activity, according to sex**



In total 45902 persons aged 5 or more work informally at gold and fluorspar mining, which are the main forms of mining sector. Figure 3.3a and Figure 3.3b show persons engaged in informal gold/fluorspar mining by age and the mining type.



Figu **centage distribu pop king in gold minin age**

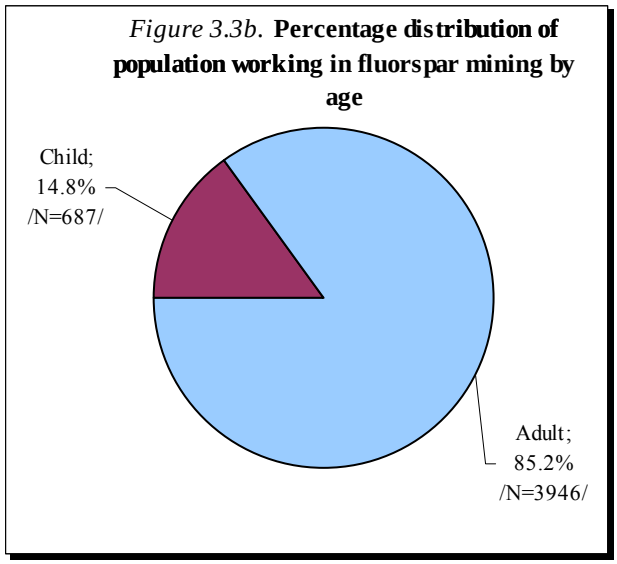


Figure 3.3b. **Percentage distribution of population working in fluorspar mining by age**

Percentages of adults and children engaged in informal gold or fluorspar mining are similar. In total, it is observed that more adults compared to children are engaged in these activities. The percentage of adults engaged in informal gold/fluorspar mining is 4.6-5.8 times higher than that of children.

When persons informally working in mines are examined by the mining type they mine, of every 10 persons 9 work in gold mines, and the remaining 1 works in fluorspar mines.

Of children residing in baghs where informal gold/fluorspar mining is being carried out 27.4 percent are engaged in informal gold mining, 2.6 percent are engaged in informal fluorspar mining, the remaining part are not engaged in these activities. A trend is observed that as children get older, their engagement in informal gold/fluorspar mining increases (Table 3.4).

For instance, while of total children engaged in informal gold mining 5.2 percent are aged 5-8; 44.2 percent are children aged 15-17. Of total children engaged in informal fluorspar mining less than 5 percent are children aged 5-8, which is 12.6 times lower than the percentage of children aged 15-17 who are engaged in fluorspar mining.

Table 3.4. **Percentage distribution of population aged 5 or more by engagement in mining activity, according to age group**

Age group	Engagement in mining activity			All
	Yes, in gold mining	Yes, in fluorspar mining	No	
Child				
5-8	5.2	4.4	32.6	24.4
9-11	16.5	14.8	23.9	21.6
12-14	34.1	25.5	24.6	27.2
15-17	44.2	55.3	18.9	26.8
Total	**100.0**	**100.0**	**100.0**	**100.0**
Estimated number of children (aged 5-17)	**7309**	**687**	**18703**	**26699**

Adults				
18-25	25.8	19.4	26.7	25.6
25-34	33.1	39.4	23.1	30.5
35-44	27.3	26.5	23.8	26.1
45-54	11.6	13.0	13.0	12.1
55-64	1.9	1.6	6.8	3.4
65 and over	0.3	0.1	6.6	2.3
Total	**100.0**	**100.0**	**100.0**	**100.0**
Estimated number of adults (aged 18 or more)	**33960**	**3946**	**17001**	**54907**

Persons aged 25-34 constitute highest share of total adults, the same age group also constitute highest share of persons engaged in gold/fluorspar mining. Among persons aged 65 and over participation in informal gold/fluorspar mining is the lowest.

Children aged 6-17 were asked about whether study at school and the results are shown in Table 3.5.

By age groups, studying at school among children aged 6-8 is the lowest. Also one in every 4 children aged 15-17 does not study at school, which is related to their greater engagement in informal gold/fluorspar mining (See Chapter 4).

Table 3.5. **Percentage distribution of children aged 6-17 by whether study at school, according to selected characteristics**

Selected characteristics	Whether study at school		Total	Sample number of children aged 6-17	Estimated number of children aged 6-17
	Yes	No			
Age group					
6-8	72.0	28.0	**100.0**	**580**	**4667**
9-11	95.0	5.0	**100.0**	**627**	**5780**
12-14	91.7	8.3	**100.0**	**741**	**7267**
15-17	74.8	25.2	**100.0**	**890**	**7133**
Sex					
Male	81.6	18.4	**100.0**	**1554**	**13571**
Female	86.8	13.2	**100.0**	**1284**	**11276**
Engagement in mining activity					
Yes, gold mining	72.5	27.5	**100.0**	**749**	**7306**
Yes, fluorspar mining	79.4	20.6	**100.0**	**128**	**687**
No	89.1	10.9	**100.0**	**1961**	**16852**
Registration status in the soum					
Yes	86.9	13.1	**100.0**	**2491**	**21758**
No	63.0	37.0	**100.0**	**347**	**3089**
Location of household					
Mining place	64.8	35.2	**100.0**	**739**	**5301**
Bagh area	89.1	10.9	**100.0**	**2099**	**19546**
All	**83.9**	**16.1**	**100.0**	**2818**	**24847**

Table 3.5 shows that studying at school is low among children from households that are not registered at the given soum, are residing near mining places and are engaged in informal gold/fluorspar mining. While 6 of every 10 (63 percent) children from households residing near mining places study at school, about 9 in every 10 (86.9 percent) children residing at the bagh area study at school. It shows that children, who dropped out of school or did not enroll at school live in mining place and are in greater shape engaged in informal gold/fluorspar mining activities.

One of another basic data collected with use of household listing questionnaire is information about migration of persons residing in mining place and at the bagh area. Of total persons aged 5 and over residing in baghs where informal gold/fluorspar mining is being carried out 62.4 percent or 50887 persons lived in this place or soum for 5 and over years, 22.4 percent or 18286 persons have lived for 1-4 years, 15.2 percent or 12433 persons lived for up to 1 year.

When their duration intended to stay was examined, 55.6 percent plan to live in the present location for 5 and over years, 13.2 percent for 1-4 years and 16.1 percent for up to 1 year. However, 15.1 percent did not have any plans about future migration.

Table 3.6 shows migration indicators of the persons by engagement in informal gold/fluorspar mining.

Table 3.6. **Percentage distribution of population aged 5 or more by indicators of migration, according to engagement in mining activity**

Indicators of migration	Engagement in mining activity			All
	Yes, in gold mining	Yes, in fluorspar mining	Do not engage	
Duration of residence				
5 and over years	53.6	29.6	77.0	62.4
1-4 years	28.2	16.2	16.1	22.4
Up to 1 year	18.2	54.2	6.9	15.2
Duration intended to stay				
5 and over years	50.6	34.8	64.6	55.6
1-4 years	14.2	8.7	12.2	13.2
Up to 1 year	18.9	51.4	8.5	16.1
Do not know	16.3	5.1	14.7	15.1
Total	**100.0**	**100.0**	**100.0**	**100.0**
Estimated number of population aged 5 and over	**41269**	**4633**	**35704**	**81606**

Of total persons engaged in informal gold mining 53.6 percent have lived in the present location where the survey was conducted for 5 or over years, and the rest have lived there up to 5 years. Of those who are engaged in informal fluorspar mining over than half are migrants, who have lived in the present location for up to 1 year.

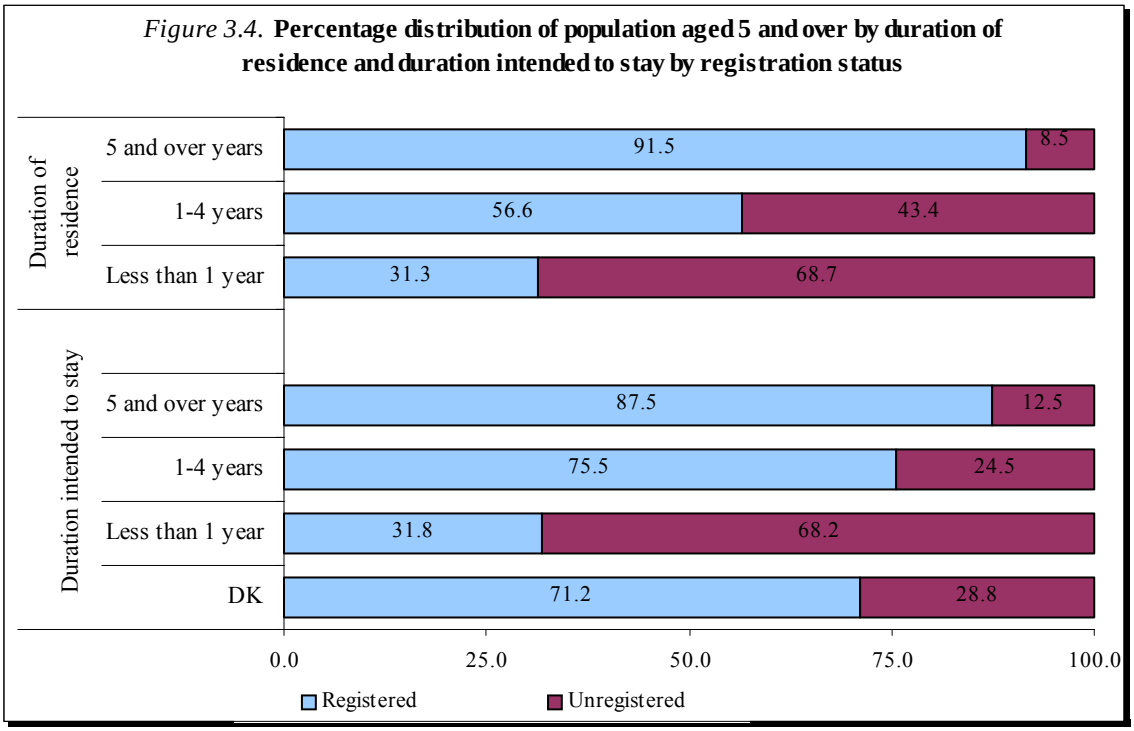
Among those, who are not engaged in gold/fluorspar mining the answer “I plan to live here for 5 or over years” takes up the highest percentage (64.6 percent). However, it is

interesting result, that half (51.4 percent) engaged in fluorspar mining plan to stay in the present location for up to 1 year.

Registration at the soum where the respondent is currently residing has a direct correlation with his/her residence duration (Figure 3.4). Of persons residing in this place for 5 or over years over 91.5 percent have a registration, while 7 in every 10 (68.7 percent), who have lived there for up to 1 year, are not registered.

Respondents who are planning to move in the future are not interested in getting a registration at soum. The shorter the planned period of stay in the given location, the higher is lack of registration. For instance, 68.2 percent aged over 5 who are planning to live for up to 1 year in the place where the survey was conducted and one in every 4 (24.5 percent) who are planning to live there for 1-4 years were not registered at the soum of their residence at the time of the survey.

Figure 3.4. **Percentage distribution of population aged 5 and over by duration of residence and duration intended to stay by registration status**



The above situation illustrates that persons not planning to live permanently at the given soum do not pay attention to the issue of registration. It can not be denied that lack of registration limits their opportunities to access education and health services.

CHAPTER 4. CHILDREN ENGAGED IN INFORMAL GOLD/FLUORSPAR MINING

This chapter will examine in detail the profile of children aged 5-17 engaged in informal gold/fluorspar mining, their past and present employment, their income and expenditure, health and work security issues, their habits, dreams and aspirations for the future and problems faced by them.

4.1 Profile of children engaged in informal gold/fluorspar mining

The "Baseline survey on child and adult workers in informal gold/fluorspar mining" was conducted among 288 children engaged in gold mining and 60 children engaged in fluorspar mining. According to the estimation, children engaged in informal gold mining covered by the survey represent 7309 children in gold mining, and children engaged in informal fluorspar mining represent 687 children in fluorspar mining.

Since we explained the sampling in the previous chapters, this chapter presents only detailed data on children. In doing so, with regard to the different sample sizes of children working in gold and fluorspar mines, the comparative explanation was not always given.

4.1.1 Demographic profile

Children engaged in informal gold/fluorspar mining is shown in Table 4.1 by age, according to mining type and sex of children.

Of children engaged in informal gold mining 82.0 percent are boys and 18.0 percent are girls, of children engaged in informal fluorspar mining 82.8 percent are boys and 17.2 percent are girls. It illustrates that more boys than girls are engaged in hard mining labor.

Percentage of children aged 13-15 (47.8 percent) who are engaged in informal gold mining and that of children aged 16-17 (40.4 percent) who are engaged in informal fluorspar mining is higher compared to other age groups. The average age of children engaged in informal gold mining is 14.1, children engaged in informal fluorspar mining is 14.2 which does not more differ by sex among children in gold mining, but among children in fluorspar mining the average age of girls is the youngest or 12.5 years old. It can be seen that children engaged in informal gold/fluorspar mining start working at the age that is 4 years younger than the youngest age for employment at mines as stated in the Labor Law.

Table 4.1. **Percentage distribution of working children by age, according to mining type and sex**

Age group	Mining type					
	Gold			Fluorspar		
	Male	Female	All	Male	Female	All
5	0.1	0.0	0.1	0.0	0.0	0.0
6	1.1	1.6	1.2	0.0	0.0	0.0
7	1.7	0.0	1.4	2.1	0.0	1.8
8	0.6	3.0	1.1	0.0	0.0	0.0
9	0.6	2.6	0.9	1.1	11.2	2.8
10	6.1	2.5	5.4	8.1	12.9	8.9
11	4.7	0.3	3.9	4.4	0.0	3.6
12	8.9	0.9	7.4	3.2	25.9	7.0
5-12	**23.7**	**10.9**	**21.4**	**18.8**	**50.0**	**24.2**
13	8.7	15.9	10.0	8.8	18.1	10.4
14	16.5	29.5	18.8	12.0	18.1	13.0
15	20.3	12.6	18.9	12.8	8.6	12.1
13-15	**45.5**	**58.1**	**47.8**	**33.4**	**44.9**	**35.4**
16	16.2	15.8	16.1	18.1	0.0	15.0
17	14.6	15.2	14.7	29.5	5.2	25.4
16-17	**30.8**	**31.0**	**30.8**	**47.8**	**5.1**	**40.4**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Mean age	***14.0***	***14.2***	***14.1***	***14.6***	***12.5***	***14.2***
Sample child workers	**216**	**72**	**288**	**50**	**10**	**60**
Estimated no. of child workers	**5993**	**1316**	**7309**	**569**	**118**	**687**

Table 4.2 shows percentage distribution of children engaged in informal gold/fluorspar mining, by mining type according to sex of children and selected aimags.

Table 4.2. **Percentage distribution of working children by mining type and sex, according to selected aimags**

Selected aimags	Mining type					
	Gold			Fluorspar		
	Male	Female	Total	Male	Female	Total
Bayankhongor	48.5	51.5	**100.0**	-	-	**-**
Darkhan-Uul	91.8	8.2	**100.0**	-	-	**-**
Dornogovi	-	-	**-**	88.3	11.7	**100.0**
Dundgovi	41.7	58.3	**100.0**	58.2	41.8	**100.0**
Khentii	57.7	42.3	**100.0**	100.0	0	**100.0**
Selenge	97.2	2.8	**100.0**	-	-	**-**
Tuv	90.4	9.6	**100.0**	-	-	**-**
Umnugovi	92.4	7.6	**100.0**	-	-	**-**
Uvurkhangai	85.2	14.8	**100.0**	-	-	**-**
All	**82.0**	**18.0**	**100.0**	**82.8**	**17.2**	**100.0**
Estimated no. of child workers	**5993**	**1316**	**7309**	**569**	**118**	**687**

Apart from Bayankhongor and Dundgovi aimags the majority of children working in informal gold/fluorspar mines are boys and 100 percent of children working in fluorspar mines in Khentii aimag are boys.

4.1.2 Migration

Migration status of children is examined in 2 parts, *first*: migration since birth, *second*: migration in the last 5 years.

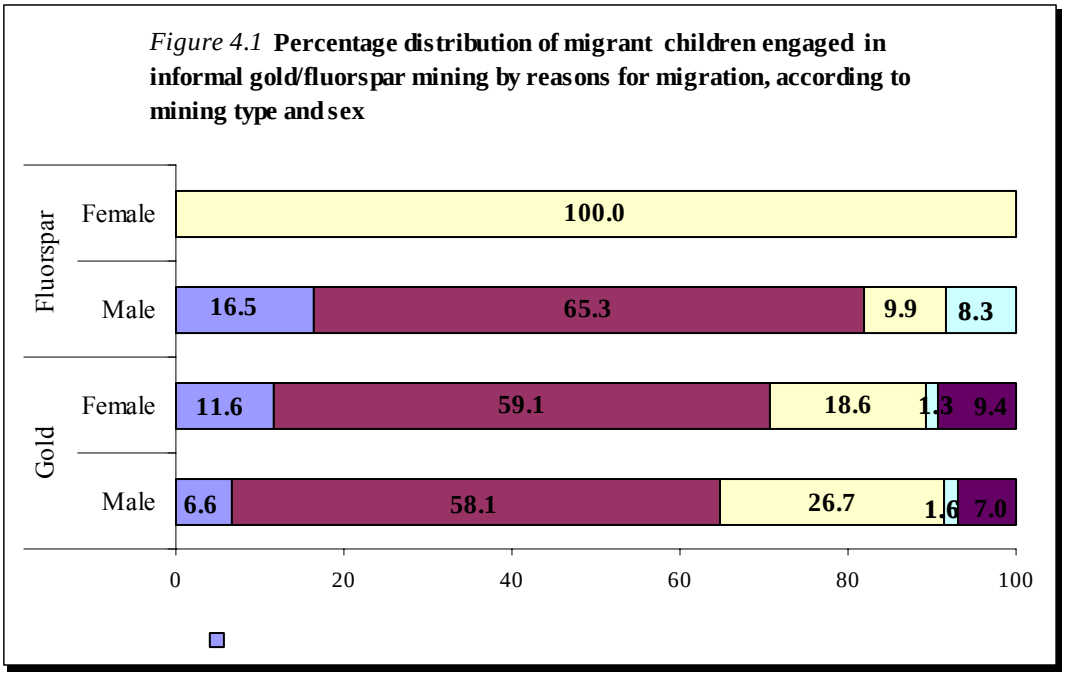
Children who were born in soums other than the soum, where the survey was conducted, were included in the number of children who participated in migration since birth. Of children engaged in informal gold mining 38.5 percent, of children engaged in informal fluorspar mining 46.6 percent have participated in migration since their birth. In other words, these children moved from their place of birth at some time in their life and now live in the other aimag or soum. Of migrant children engaged in gold mining 78.6 percent, of migrant children engaged in fluorspar mining 80.6 percent are boys.

In determining the number of children who participated in migration in the last 5 years, temporary residents were included into this category, so these children were classified as *migrants* and if they lived for 5 or over years in the given soum they were classified as *non-migrants*. Of children engaged in informal gold mining 27.8 percent, of children engaged in informal fluorspar mining 19.5 percent participated in migration in the last 5 years. The percentage of boys among those children who participated in migration in the last 5 years is, with regard to mining type, 85.2 percent and 90.3 percent respectively. Results of the survey clearly show that children, especially boys engaged in informal gold/fluorspar mining, participate in migration to great extent. If children who work in this field during their summer vacation are added, the number will be even greater, and in summer temporary migration to gold/fluorspar mines increases.

Reasons for participation in migration in the last 5 years among children engaged in informal gold mining are shown in figure 4.1.

Of total children working in informal gold mines 58.2 percent moved to the present location to mine gold, 25.5 percent to be closer to relatives, 7.4 percent to find some kind of employment, the remaining 8.9 percent stated such reasons as to study, to get closer to the market, to improve their livelihood. The percentage of girls who moved in order to mine gold is higher than that of boys by 1 points, while the percentage of boys who moved to be near their relatives is higher than that of girls by 8.1 points. Of total female children working in informal fluorspar mines 100 percent moved to the present location to join relatives. However, of male child workers in informal fluorspar mining 65.3 percent moved to mine fluorspar, 9.9 percent to join relatives, 16.5 percent to work some kind of employment and remaining 8.3 percent to study.

Figure 4.1 **Percentage distribution of migrant children engaged in informal gold/fluorspar mining by reasons for migration, according to mining type and sex**



Note: *- to study, to get closer to the market, to improve their livelihood are included in the "Others" category

Child labor at mines contains in itself many intolerable forms of child labor. That is why it is very important to determine whether children engaged in informal gold/fluorspar mining participated in migration under supervision and care of parents or relatives and if they are employed.

Table 4.3 shows the percent of migrant children engaged in informal gold/fluorspar mining by in terms of persons they migrated with, according to mining type and age group

Table 4.3. **Percent of working children, who participated in migration by in terms of persons they migrated with, according to mining type and age group**

Persons migrated with	Mining type							
	Gold				Fluorspar			
	5-12	13-15	16-17	All	5-12	13-15	16-17	All
Myself	8.4	0.5	9.8	5.8	0.0	38.5	21.0	17.4
With parents	91.6	89.8	73.5	83.1	100.0	61.5	41.9	65.2
With sister, brother/ grand parents	65.7	76.6	62.6	68.8	72.7	23.1	37.1	46.2
With relatives	1.2	15.5	3.2	7.8	0.0	0.0	0.0	0.0
With friends (with consent of parents)	0.0	0.0	0.0	0.0	0.0	0.0	21.0	9.8
Estimated no. of child workers	**332**	**822**	**876**	**2030**	**44**	**26**	**62**	**132**

Note: Answers are multiple

Of children in gold mining 5.8 percent, of those mining fluorspar 17.4 percent participated in migration on their own and they were of different age groups.
Living in the given soum up to 5 years of children mining gold 56.4 percent and of children mining fluorspar 80 percent have a registration at the given soum, the remaining children have no registration or do not know if they have one.

Of children mining gold in the proximity of the given mine 65.8 percent and of children mining fluorspar 57.5 percent plan to live and work there and while children mining gold plan to stay there in average for 31 months, children mining fluorspar plan to live there for an average of 49 months. Of children mining gold who do not plan to live and work at the given mine 55.6 percent did not plan when they are going to move from the mine, but 25.3 percent plan to move within one month, 21.1 percent are going to move within 2 or over months. Of these children 68.6 percent plan to move to the aimag or soum center, 10.9 percent to another mine, 28.2 percent to the capital city. 18.6 percent are going to move on their own and 71.4 percent are moving with their parents. Of children mining fluorspar 23.6 percent did not plan the time of their move, 53.8 percent plan to move within one month, 22.6 percent are going to move within 2 or over months. Of these children 79.1 percent wish to move to the aimag or soum center, 4.1 percent to another mine and 16.8 percent to the capital city. 43.3 percent plan to move on their own, 52.9 percent are moving to with their parents. The order of reasons for a move was similar in all mines and included such reasons as *first*: to study, *second*: to find employment other than gold/fluorspar mining, *third*: to join relatives.

4.1.3 Living conditions and family situation

Although numerous different factors affect child labor, in this case we are looking at impact from the child's living environment and persons who live with them. In other words, if the household of the child lives near mines and if household members living with the child are employed at mines, the probability of a child to be attracted to mining is greater.

Table 4.4 shows percent distribution of children engaged in informal gold/fluorspar mining by mining type and selected indicators.

In general, while 34 percent of children mining gold and 47.5 percent of children mining fluorspar live near the mine, which mines gold/fluorspar throughout the most part of the year, 62.5 percent of children mining gold and 46.9 percent of children mining fluorspar live in the soum where the mine is located. The average distance from the location of the child's household to the mine is 17 km for children mining gold, for children mining fluorspar it is 29.3 km. A fact that the place of permanent residence of children who moved from other different aimags and soums is quite far from the mine affected such a high average. For instance, the furthest distance to the mine from the place where the child's household is located is 450-800 km with regard to mining type.

Of children engaged in informal gold mining 24.1 percent, of those engaged in informal fluorspar mining 19.5 percent live in the proximity of the mine in average for 3 and over years, the average length of stay near the mine for children mining gold is 29 months, and for those mining fluorspar 26 months.

In households where children engaged in gold/fluorspar mining live, 1-2 children (including the sample child worker) aged 5-17 and 2 adults work in gold/fluorspar mines. The greatest number of household members working at informal gold/fluorspar mine was 5 children and 7 adults.

Table 4.4. **Percentage distribution of working children by selected characteristics, according to mining type**

Selected characteristics	Mining type	
	Gold	Fluorspar
Usually living place		
Mining place	34.0	47.5
In this soum center	62.5	46.9
In other aimag/soum center	3.5	5.6
Distance between HH and mining place (kilometer)		
Less than 1	27.3	30.0
1-14.9	31.0	40.0
15-99.9	36.8	26.1
100 or more	2.0	3.9
DK	2.9	0.0
Average distance	***17.0***	***29.3***
Duration of living in mining place (month)		
1-3	39.6	59.1
4-36	36.3	21.4
37 and more	24.1	19.5
Average	***29.2***	***25.8***
Total	**100.0**	**100.0**
Estimated no. of child workers	**7309**	**687**

Living conditions of children residing near mining place

As we mentioned earlier, about half of children live near the mines for the most part of the year. So Table 4.5 shows in what conditions these children live by mining type.

Children engaged in gold mining who live near mines live in households with 4-5 members (including the child himself) and 2 among household members are children under 18. Children engaged in fluorspar mining live in a household with in average 5-6 members and 2-3 of household members are children under 18.

While the majority of children working in informal gold mines (80.1 percent) live in gers, of children mining fluorspar 57.7 percent live in gers and 26.1 percent live in houses. A significant percentage of children working in informal mines (gold mines-19 percent, fluorspar- 16.3 percent) live in a dwelling not suited for housing, for instance, in tents, hovel, huts, incomplete gers, cars.

Of children mining gold 80.4 percent and of children mining fluorspar 59.8 percent live in their own or their parents' housing and others live free of charge in other people's housing.

Table 4.5. **Percentage distribution of working children, who are living in mining place by indicators of living conditions, according to mining type**

Indicators of living conditions	Mining type	
	Gold	Fluorspar
Type of dwelling		
Ger	80.1	57.7
House	0.9	26.1
Tent	3.0	4.0
Hovel/Hat/car/duguintsag*	16.0	12.3
Type of ownership of living quarters		
Own	80.4	59.8
Others provides free	19.6	40.2
Electricity/lit source of household		
Centralized electricity	1.1	18.8
Not centralized electricity	1.7	0.0
Motor	4.8	3.0
Candle	91.2	70.8
Don't use light	1.2	7.4
Main source of drinking water		
Protected well	7.4	28.8
Unprotected well	31.4	60.1
Creek/stream/river	57.1	9.2
Back stream	4.1	1.9
Distance from source of drinking water (metre)		
100 or less	23.7	23.6
101-499	31.2	17.2
500-1999	26.0	22.7
2000 or more	19.1	36.5
Average distance (metre)	***941.0***	***2013.3***
Whether having sanitary facilities close to household		
Yes	5.1	38.3
No	94.9	61.7
Whether having toilet close to household		
Yes	4.0	20.9
No	96.0	79.1
Total	**100.0**	**100.0**
Estimated no. of child workers, who are living in mining place	**2504**	**326**

Note: *- This dwelling is similar to the Mongolian living quarter, which is named "ger" but some components are uncompleted;

As 91.2 percent of children mining gold and 70.8 percent of children mining fluorspar reported using candles, it can be concluded that the majority of households living near mines use candles as source of lighting. Of children mining fluorspar 18.8 percent live in households, which have centralized electric power supply. This is related to a fact that in some places where fluorspar is mined, namely in Bor-Undur bagh of Hentii aimag the infrastructure is well developed since many mines that were exploited previously are located in this place, which explains high electric power consumption.

The measurement of access to drinking water is determining the water supply. Only 7.4 percent of children mining gold and 28.8 percent of children mining fluorspar, who live near mines reported using drinking water from protected wells. Moreover, there were many answers that reported using stagnant water for drinking. The average distance from

the child's household to the source of drinking water is approximately 1 km for children mining gold and 2.1 km for children mining fluorspar.

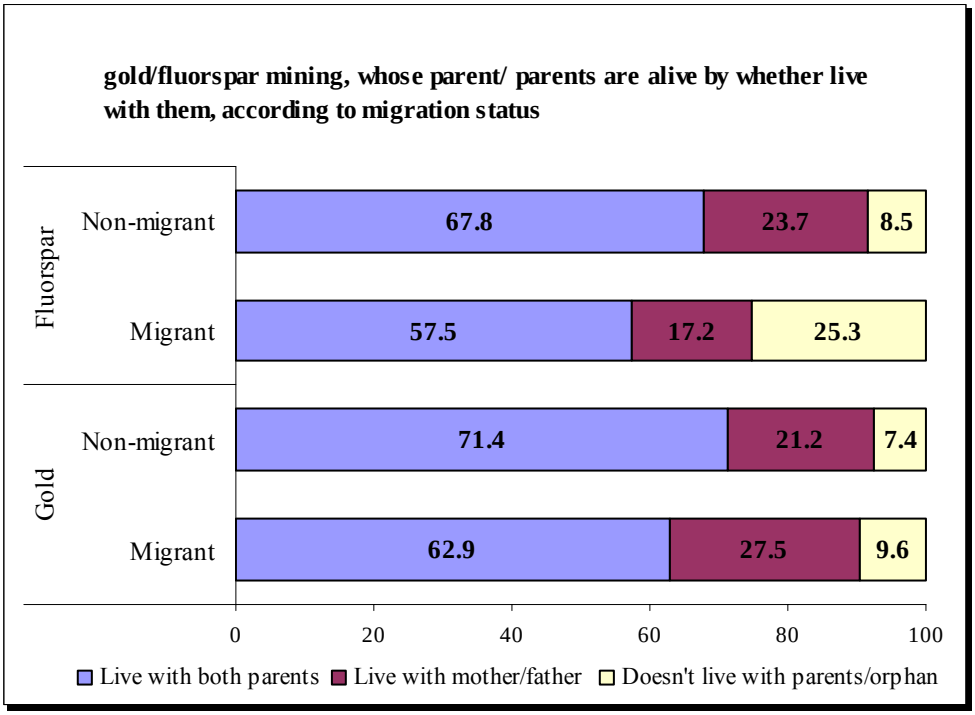
A fact that children informally mining gold/ fluorspar live in conditions not meeting hygienic requirements can be seen from a fact that most children (96 percent of those mining gold and 79.1 percent of those mining fluorspar) live without toilets in the proximity of their housing, and there are no sanitary facilities places (94.9 percent and 61.7 percent respectively for children mining gold/fluorspar).

Supervision and control of caregivers

Parents' views on and attitudes towards child labor and the future of children working in mines as well as their control and supervision are important to children. Since we will examine these issues in detail in the next chapter, here we will look at some indicators of parents' supervision and care.

Among children informally mining gold the percentage of children whose parents are both alive is 77.5 percent, the percentage of children whose father is dead is 19.4 percent, the percentage of those whose mother is dead is 1.9 percent and the percentage of those whose parents are both dead or complete orphans is 1.2 percent. Among children informally mining fluorspar, the percentage of children whose parents are both alive is 84.4 percent, the percentage of children whose father is dead is 9.2 percent, the percentage of those whose mother is dead is 4.5 percent and the percentage of those whose parents are both dead or complete orphans is 1.9 percent.

Percentage distribution of children informally mining gold/fluorspar is shown in figure 4.2 by indicators of their living with their parents, mining type and their migration status.



The percentage of non-migrant children living with their parents is higher by 8.5 points compared to that of migrant children and for children mining fluorspar it is 10.3 points higher.

Of children not living with parents or orphan 43.7 percent live in grandparents and siblings, 27.7 percent in relatives, 25.9 percent acquaintances and 2.7 percent in employers.

When we clarified how children maintain contact with their families and communicate with them since they started working in this field, 52.7 percent of temporary migrant children mining gold reported visiting their families, 15.3 percent working together with their family members, 12.3 percent do not have any communication with their families, the rest reported having visitor from their families, talking to them on the phone or receiving oral messages. Of children temporary migrants mining fluorspar 50.7 percent do not have any communication with their families, 17.8 percent visiting their families, 13.7 percent talking on the phone, 17.8 percent working together with family members.

Table 4.6 shows percent distribution of children engaged in informal gold mining, by existence of official documents and other selected indicators.

Table 4.6. **Percentage distribution of children in engaged in informal gold mining, whether they have documents by selected characteristics**

Selected characteristics	Birth certificate/ID*			Health insurance			Total	Estimated no. of child workers in informal gold mining
	Have	Haven't	DK**	Have	Haven't	DK		
Age group								
5-12	88.2	10.8	1.0	75.7	19.8	4.5	**100.0**	**1567**
13-15	87.3	9.7	3.0	77.0	13.8	9.2	**100.0**	**3489**
16-17	91.8	8.2	0.0	80.3	18.5	1.2	**100.0**	**2253**
Sex								
Male	88.7	9.3	2.0	75.7	17.4	6.9	**100.0**	**5993**
Female	89.8	10.2	0.0	87.4	12.6	0.0	**100.0**	**1316**
Migration status								
Migrant	83.7	14.9	1.4	60.9	34.9	4.2	**100.0**	**2030**
Non-migrant	90.9	7.4	1.7	87.5	9.8	2.7	**100.0**	**5279**
Parents status								
Both parents alive	88.3	9.6	2.1	78.3	15.3	6.4	**100.0**	**5666**
Father/mother dead	90.6	9.4	0.0	75.0	21.6	3.4	**100.0**	**1558**
Both parents dead	100.0	0.0	0.0	90.6	9.4	0.0	**100.0**	**85**
All	**88.9**	**9.5**	**1.6**	**77.8**	**16.5**	**5.7**	100.0	**7309**

Note: *- We asked that does children aged 16 and above have ID.
**- Don not know

Documentation of children mining fluorspar is at relatively good level, the number of children without any documents is insignificant, so they were not included in the table.

Of children mining gold 88.9 percent have a birth certificate/ID, 77.8 percent have a medical insurance document, the rest reported lack of documents or did not know about

them. Of children mining fluorspar 95.5 percent have a birth certificate/ID, 89.7 percent have a medical insurance document.

The percentage of non-migrant children with documentation is high compared to migrant children, the percentage of those who did not have any documents, especially those who lack medical insurance document, is still high. Although the Law on Medical insurance states that the state takes responsibility for medical insurance of all children under 16 years old, 34.9 percent of migrant children and 9.8 percent of non-migrant children are not covered by medical insurance due to irresponsibility of their parents. This situation presents a great risk to children. That is why related institutions and children's parents should pay attention to documentation of their children.

4.1.4 School attendance and literacy

Despite a fact that our country takes one of leading places in the world by literacy level and a goal of achieving total literacy was put forward, it was not able to keep this success in the late years. Percent distribution of illiterate children engaged in informal gold/fluorspar mining is shown in table 4.7 by mining type and selected indicators.

Table 4.7. **Percent of illiterate and working children by mining type, according to selected characteristics**

Selected characteristics	Mining type			
	Gold		Fluorspar	
	Percent of child workers, who can't read	Percent of child workers, who can't write	Percent of child workers, who can't read	Percent of child workers, who can't write
Age				
5-12	25.5	25.5	7.9	7.9
13-15	13.4	14.3	0.0	0.0
16-17	9.3	9.9	13.3	13.3
Sex				
Male	15.1	15.3	6.5	6.5
Female	12.8	15.4	11.0	11.0
Aimag				
Bayankhongor	10.6	13.1	-	-
Darkhan	12.7	12.7	-	-
Dornogovi	-	-	14.2	14.2
Dundgovi	0.0	0.0	0.0	0.0
Khentii	8.1	8.0	0.0	0.0
Selenge	2.7	2.7	-	-
Tuv	19.5	22.9	-	-
Umnugovi	17.5	17.5	-	-
Uvurkhangai	42.2	42.2	-	-
Total	**14.7**	**15.4**	**7.3**	**7.3**
Estimated no. of child workers, who can't read and can't write	**1075**	**1122**	**50**	**50**

Of children informally mining gold 14.7 percent can not read and 15.4 percent can not write. Of children mining fluorspar 7.3 percent can not read or write. However, we should pay attention to the fact that children younger than 7 were also covered by the survey. When the percentage of illiterate children among those aged 7 or older was calculated, 1

in every 7 children mining gold could not read and write, 1 in every 15 children mining fluorspar could not read and write.
In such aimags as Tuv, Uvurkhnagi, Umnugovi where gold output is good, the percentage of illiterate children among children mining gold is higher compared to that of children in other aimags.

While on the one hand, limited opportunities and conditions for study affect children, making them to start working, on the other hand, child labor itself closes down the opportunity of children to get education.

Percent distribution of children engaged in informal gold/fluorspar mining, whether they study at school, by mining type and selected indicators is shown in table 4.8.

Although the Constitution of Mongolia states that Mongolian citizen have a right to get an education, of children aged 7-15, who should get a compulsory education mining gold 24.6 percent and of children mining fluorspar 10.8 percent do not attend school. Along with children who do not study at school there were 1.9 percent children mining gold and 3.9 percent of children mining fluorspar, who are receiving informal training. By age groups, the percentage of children not attending school is the highest among children aged 16-17.

Table 4.8. **Percentage distribution of working children by mining type and school attendance, according to selected characteristics**

Selected characteristics	Mining type						Total
	Gold			Fluorspar			
	Study at school	Study in informal school	Do not study	Study at school	Study in informal school	Do not study	
Age							
5-12	69.9	4.3	25.8	92.1	0.0	7.9	**100.0**
13-15	71.8	2.1	26.1	76.1	11.1	12.8	**100.0**
16-17	51.0	0.0	49.0	60.4	0.0	39.6	**100.0**
Sex							
Male	62.6	2.1	35.3	73.4	4.8	21.8	**100.0**
Female	75.7	1.1	23.2	74.6	0.0	25.4	**100.0**
Migration status							
Migrant	34.3	0.5	65.2	37.0	0.0	63.0	**100.0**
Non -migrant	76.8	2.4	20.8	82.4	4.9	12.7	**100.0**
Whether live with parents							
Live with both parents	70.8	0.3	28.9	81.6	2.7	15.7	**100.0**
Live with father/mother	53.2	3.2	43.6	66.2	9.7	24.1	**100.0**
Doesn't live with/ Orphan	49.2	11.4	39.4	42.5	0.0	57.5	**100.0**
All	**65.0**	**1.9**	**33.1**	**73.7**	**3.9**	**22.4**	**100.0**
Estimated no. of child workers	**4752**	**139**	**2418**	**506**	**27**	**154**	

The percentage of school dropouts among migrant children mining gold is high as well as that among those mining fluorspar. To clarify, the percentage of children not attending

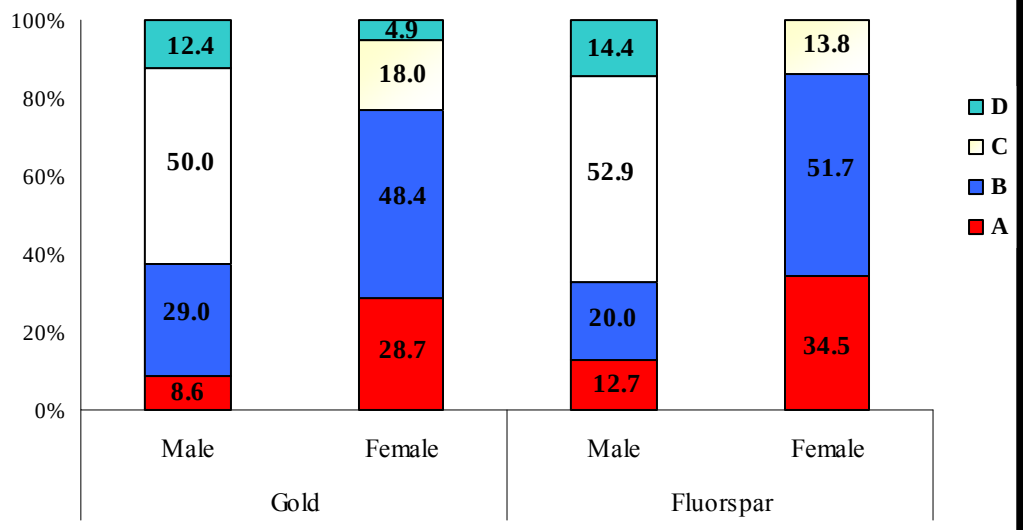
school among migrant children mining gold is 3 times higher compared to that of non-migrant children and for children mining fluorspar it is 5 times higher. It can be seen from this that access to education is unsatisfactory for migrant children and it is one of urgent issues to pay attention to in the future.

The percentage of children not living with their parents or orphans who do not attend school is higher than that of children living with one of their caregivers (33.4 points among children mining fluorspar), the percentage of children who live with one of their parents not attending school is higher than that of children living with both parents (14.7 points among children mining gold, 8.4 points among those mining fluorspar).

Children informally mining gold who attend school study in average in the 7th grade, those mining fluorspar in average in 6-7th grade. Figure 4.3 shows in the last academic years' success of children attending school by mining type and by sex.

As children reported, the majority of them have grades B, C. As by sex, girls are more successful than boys. Percentage of children who get D, i.e. fail is considerable among children informally mining gold/fluorspar. It can be concluded that the child's employment negatively affects their interest to study.

Figure 4.3 **Percentage distribution of children studying in grades 2 and over, academic results for past year, by mining type and by sex.**



Reasons for not attending school among children informally mining gold/fluorspar depend in large measure on whether they live with their parents (Table 4.9).

For instance, the percentage of children not attending school because of being engaged in gold/fluorspar mining is 3.2 points higher among children not living with their parents compared to those living with their parents and 23.7 points higher among those mining fluorspar. Percentage of school drop out due to academic failure is higher among children not living with their parents compared to those who live with their parents. On the contrary, percentage of children not attending school due to family problems (non-economic reasons) is higher among children living with their parents compared to those

not living with their parents. Low living standards and poverty in the family are the main reasons for child labor.

Table 4.9. **Percent of working children, who are not attending school by reason for not attending school, according to mining type and whether live with parents**

Reason for not studying	Mining type					
	Gold			Fluorspar		
	Live with parents	Doesn't live/Orphan	Total	Live with parents	Doesn't live/Orphan	Total
Learning unsuccessfully	20.0	30.9	21.0	5.7	26.7	11.9
Because of working in mining	30.3	33.5	30.9	27.4	51.1	34.4
Lack of income/ money	22.0	19.5	21.8	28.3	0.0	19.9
Domestic problems	34.2	15.5	32.4	51.9	26.7	44.4
Have no registration/ID	5.3	13.7	6.1	12.3	22.2	15.2
Health problems	11.4	0.0	10.3	11.3	0.0	7.9
Because of other work	5.7	10.3	6.1	12.3	0.0	8.6
Others*	9.0	17.6	14.8	9.4	22.2	13.2
Estimated no. of child workers, who are not attending school	**2186**	**232**	**2418**	**108**	**46**	**154**

Note: Answers are multiple

*- Needless/non-school age, school is too far, classroom is overcrowded are included in the "Others" category

4.2 Past and present employment of children engaged in informal gold/fluorspar mining

This part of the survey examines in detail the first and the present employment of children engaged in informal gold/fluorspar mining, reasons for starting work, kinds of work implemented, tools and equipment commonly used during work, working conditions, the amount of monthly mineral output and income earned, duration of working hours and rest.

4.2.1 Past employment

First employment

Children engaged in informal gold/fluorspar mining first started working outside their home in average at the age of 12. Of children mining gold 73.4 percent and of children mining fluorspar 86 percent answered that the present job is their first job. A fact that the first job of girls was working in informal gold/fluorspar mines is proved by answers of 92.8 percent of girls mining gold who reported this work as their first one and 100 percent of girls mining fluorspar. Let us now look at the first jobs of boys.

Percent distribution of boys engaged in informal gold/fluorspar mining who previously had other jobs, by type of mining is shown in Figure 4.4.

It can be seem that boys often worked previously as herders or collected and sold waste materials for recycling. Of boys working in informal gold mines 18.1 percent worked as a herder, 14.8 percent as a child domestic workers. Also, boys previously had worked in other organizations (15 percent) and vending at street (10.4 percent), collected wood,

coal, iron and some metals (38.6 percent). Of boys working in informal fluorspar mines 82.3 percent worked as a herder, the rest 17.7 percent collected and carried iron and some metals.

Children engaged in informal gold/fluorspar mining, who previously had other jobs, have changed their jobs in average 2 times and at the most 5 times.

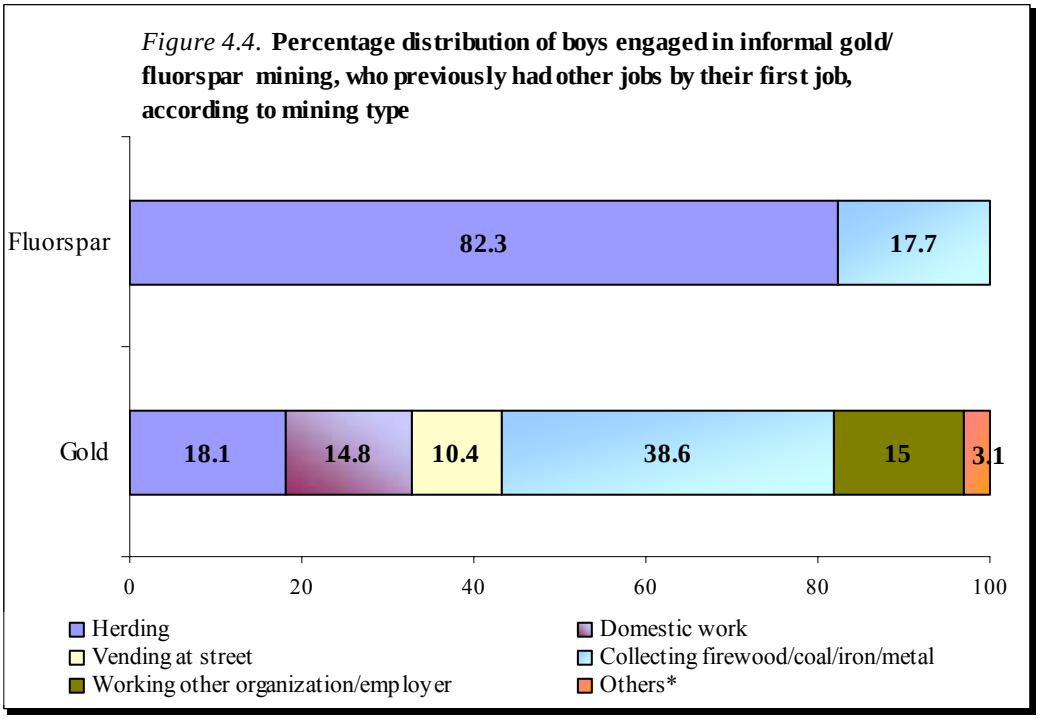


Figure 4.4. **Percentage distribution of boys engaged in informal gold/ fluorspar mining, who previously had other jobs by their first job, according to mining type**

Note: *- Car washing, riding racehorses are included in the "Others" category

Period of past employment

As we previously mentioned the average age of starting work outside their home for children mining gold/fluorspar, let us look now at the age of their starting work at gold/fluorspar mines. Children engaged in informal gold/fluorspar mining started working at the given mine at the age of in average 12-13.

Of children mining gold 12.8 percent of children mining fluorspar 9.6 percent worked previously at other different kinds of mines, namely, at coal and tin mines.

When asked if they worked at the same kind of mines as the present one, but in other location, 32.1 percent of children mining gold and 29.1 percent of children mining fluorspar answered "yes". As for sex, boys more often than girls change the location of mines where they work. While children working in informal gold mines have worked in average at 2-3 mines, children working at fluorspar mines have worked in average at 3 mines.

Percentage distribution of children who changed places they previously worked at, reasons for change, by mining type are shown in Figure 4.5a and Figure 4.5b.

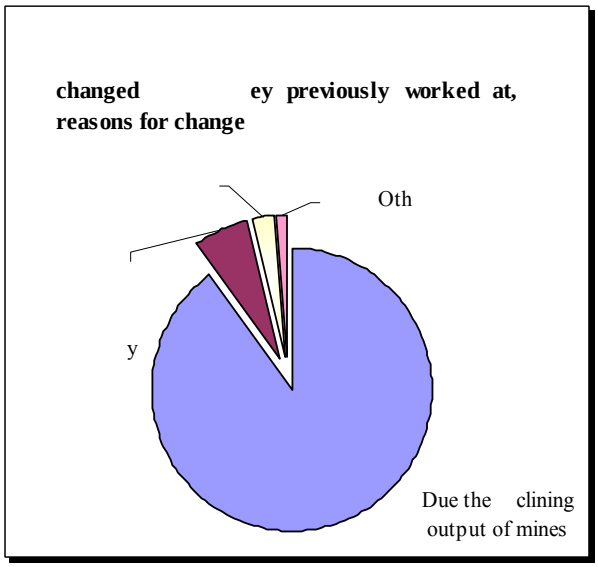
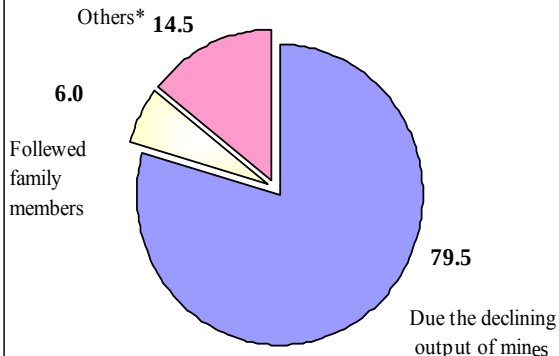


Figure 4.5b. **Percentage distribution of children engaged in informal fluorspar mining, who changed places they previously worked at, reasons for change**



Note: *- Salary is less, working condition is poor are included in the "Others" category

The majority of children mining gold who changed the mines they previously worked at, or 89.9 percent, and 79.5 percent of children mining fluorspar moved from the previous places because of declining output of mines.

4.2.2 Present employment

Determining reasons for starting work among children engaged in informal gold/fluorspar mining is one of the main objectives of the present survey. That is why reasons for starting work among children engaged in informal gold/fluorspar mining were determined and shown in Figure 4.6 by the kind of mineral mined and by sex.

Among main reasons for starting work among children engaged in informal gold/fluorspar mining such reasons as "to support household income", "to have money of my own", "because parents were unemployed", "to gain work experience" accounted for the largest part of reasons. Along with this, a certain percentage of children mining gold (18.5 percent) reported starting work because they dropped out of school. Another result that we can not omit here is that 12.5 percent of children mining gold and 16.7 percent of children mining fluorspar started working at mines due to pressure from the parents.

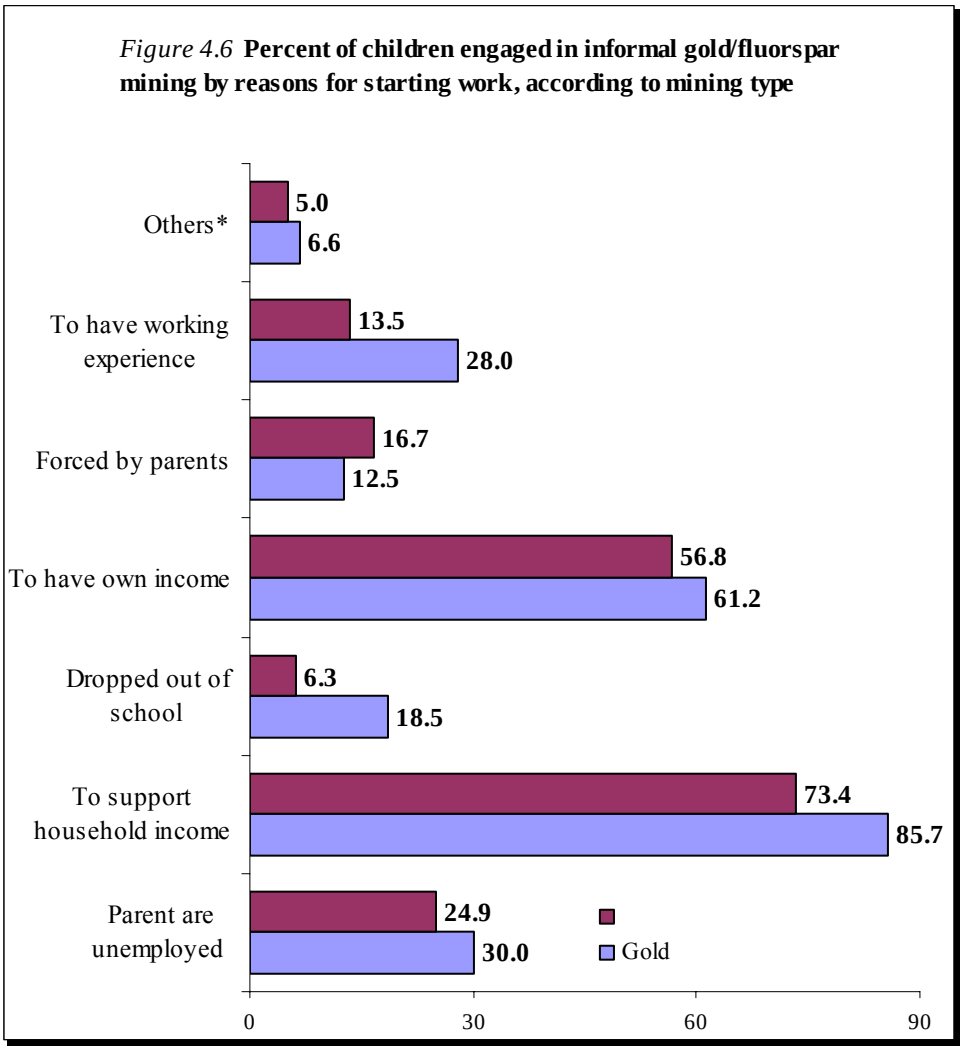
It is really unfortunate that with regard to their own interests some parents force their children, who are our future, to leave school and engage them in hard work at mines to gain a few tugrigs.

Box 4.1

I have worked for 5 years in informal fluorspar mining. When I was only 8 my parents made me leave school to work here. I studied well and was talented artistically, I sang and danced. I was very interested in studying at school. I sometimes think that my parents are very stupid and I wonder even now why my birth parents made me leave school. My two sisters now study at school. I work from morning until evening to pay for expenses related to their studies. When I want to wear nice clothes as other children they say I do not need them because I have this kind of work. I do not have any right to spend money earned by myself. I am ready to leave right now, as long as I go away from here I do not care where to go.

(D., 16 years old, female, engaged in informal fluorspar mining, Khentii, Darkhan)

Figure 4.6 **Percent of children engaged in informal gold/fluorspar mining by reasons for starting work, according to mining type**



Note: Answers are multiple

*- Earn money to study, domestic problem, nobody to care, own interests are included in the "Others" category

When main 3 reasons for children to engage in informal gold/fluorspar mining are ranked by significance, such reasons as *first*: to increase the household income (47.8 percent for children mining gold, 51.4 percent of those mining fluorspar), *second*: to have money of their own (19.2 percent for children mining gold, 22.9 percent of those mining fluorspar), *third*: because parents are unemployed (12.7 percent for children mining gold, 9.9 percent of those mining fluorspar) are prevailing. As for sex of children, there are no significant differences by mining type.

Boys informally mining gold have worked at the present place in average for 6-7 months, girls in average for 4-5 months, boys mining fluorspar for 3-4 months, girls for 4-5 months, the longest working children worked at mines for 36 months, i.e. 3 years.

Children engaged in informal gold/fluorspar mining work at the present mine together with in average 4-5 persons (including him/herself). Of these persons working together 2-3 are relatives of the child (including him/herself), the rest are non-relatives.

Table 4.10 shows percent of children engaged in informal gold/fluorspar mining by persons working with them, according to mining type and age of children.

Table 4.10. **Percent of the working children by persons working with them, according to mining type and age**

Selected characteristics	Mining type							
	Gold				Fluorspar			
	5-12	13-15	16-17	Total	5-12	13-15	16-17	Total
U ith								
Alone	0.0	1.0	9.1	3.3	0.0	9.9	0.0	3.5
Parents/family members	84.3	65.7	57.9	67.3	90.9	65.8	53.8	67.0
Relatives	20.2	24.8	12.2	21.2	23.6	24.8	34.3	29.6
Friends	12.3	29.1	33.7	27.6	3.6	14.0	28.2	17.2
Acquaintances	15.3	19.9	13.2	16.9	3.6	6.6	20.2	11.4
Estimated no. of child workers	**1567**	**3489**	**2253**	**7309**	**165**	**244**	**278**	**687**

Note: Answers are multiple

Among children of young age there were no cases of them working on their own. 9.1 percent of children mining gold aged 16-17, 9.9 percent of children aged 13-15 among those mining fluorspar work at mines on their own. Percentage of young children working together with their parents is high, but as the age of children gets older, working together with parents is becoming less popular.

When children were asked about persons who suggested them working in gold/ fluorspar mining, most of children aged 16-17 reported they decided themselves to engage in this work (45.8 percent of children mining gold, 58.8 percent of those mining fluorspar), while for children aged under 12 their parents or siblings suggested them to work in this field (51.6 percent of children mining gold, 84.3 percent of those mining fluorspar). It again shows that parents affect greatly child labor at mines.

Percentage distribution of children engaged in informal gold/fluorspar mining, kinds of work carried out at mines, by mining type is shown in Table 4.11.

Carrying water and soil, panning gold, digging for gold, digging holes/ pits, sieving sand and soil are among works mostly carried out by children mining gold. Along with these kinds of work children are involved in certain measure in such intolerable forms of child labor as mercury mining, using mercury in gold extraction, carrying out explosions, which require working with dangerous substances and reactions. There are many cases of children standing long hours in water when panning gold and damaging their health with one of the most poisonous chemical substances, namely mercury. The most important issue is that parents of children and other adults do not understand harmful consequences of mercury use, which may not show in the near future, but will reveal itself in the future, even in the future generations and continue using this old method of gold extraction.

Table 4.11 **Percentage distribution of children engaged in informal gold/fluorspar mining by mining type, according to kinds of work carried out at mines**

Type of current chores	Mining type					
	Gold			Fluorspar		
	Yes	No	Total	Yes	No	Total
Digging a hole/soil	71.5	28.5	**100.0**	65.2	34.8	**100.0**
Fetching water/soil	92.5	7.5	**100.0**	76.1	23.9	**100.0**
Sifting soil	62.2	37.8	**100.0**	13.2	86.8	**100.0**
Transporting ore/stone	23.5	76.5	**100.0**	67.5	32.5	**100.0**
Crushing and milling ore/stone/fluorspar	19.1	80.9	**100.0**	60.7	39.3	**100.0**
Digging gold/fluorspar	74.5	25.5	**100.0**	62.7	37.3	**100.0**
Panning gold[1]	85.6	14.4	**100.0**	-	-	-
Digging mercury[1]	7.0	93.0	**100.0**	-	-	-
Amalgamating with mercury[1]	14.2	85.8	**100.0**	-	-	-
Cubing fluorspar[2]	-	-	-	43.4	56.6	**100.0**
Drilling stone[1]	3.6	96.4	**100.0**	-	-	-
Working on compressor and knotted rope for simple hauling	20.7	79.3	**100.0**	8.0	92.0	**100.0**
Explosive	5.1	94.9	**100.0**	8.1	91.9	**100.0**
Scooping out bottom water	31.9	68.1	**100.0**	0.0	100.0	**100.0**
Slutting	21.9	78.1	**100.0**	1.9	98.1	**100.0**

Note: Answers are multiple, [1] Related by gold mining, [2] Related by fluorspar mining

Children mining fluorspar are engaged in all kinds of work related to fluorspar mining such as carrying soil, digging holes, carrying fluorspar, carrying ore stones, crushing ore/stones/ fluorspar, digging for fluorspar. Depending on the level of difficulty there are some differences with regard to sex of children. Of children mining fluorspar 8.1 percent also carry out works requiring use of explosives.

Percentage distribution of children engaged in gold/fluorspar mining, tools and equipment used by them, by mining type is shown in Table 4.12.

Percentage of children who regularly use such simplest tools as shovels, sacks, plastic saucepans, buckets, which are widely used in mining, is relatively high. On the other hand, percentage of children who use dangerous, sharp tools such as crowbars, hoes, cramp-iron is significant, too. Of children mining gold 5.9 percent constantly use mercury in their everyday work, 15.1 percent use it sometimes, of children mining fluorspar 18.3 percent explosives regularly or sometimes.

Of the above mentioned tools and equipment 47.1 percent are owned by children themselves, 33.8 percent is of mixed ownership (some are their own, some are others'), the rest is rented or borrowed from others.

Table 4.12. **Percentage distribution of children engaged in informal gold/fluorspar mining by mining type and whether permanent use, according to type of using equipments**

Type of using equipments	Mining type							
	Gold				Fluorspar			
	Usually	Some-times	Never	Total	Usually	Some-times	Never	Total
Shovels	82.5	11.0	6.5	**100.0**	81.1	13.0	5.9	**100.0**
Little/sledge hammers	39.0	32.0	29.0	**100.0**	60.8	15.4	23.8	**100.0**
Oscov	78.3	11.1	10.6	**100.0**	37.8	16.0	46.2	**100.0**
Ropes cords	61.5	17.6	20.9	**100.0**	19.8	11.9	68.3	**100.0**
Sacks	87.2	8.4	4.4	**100.0**	43.5	9.2	47.3	**100.0**
Candles	63.3	20.2	16.7	**100.0**	20.8	14.0	65.3	**100.0**
Flashlights	64.3	19.8	15.9	**100.0**	7.7	17.5	74.8	**100.0**
Metal riddling sieve	17.9	32.7	49.4	**100.0**	4.2	5.2	90.6	**100.0**
Mercury	5.9	15.1	79.0	**100.0**	-	-	-	-
Mercury containers	8.2	11.5	80.3	**100.0**	-	-	-	-
Plastic pans	86.7	7.5	5.8	**100.0**	40.2	10.6	49.2	**100.0**
Buckets	73.8	12.9	13.3	**100.0**	70.9	15.9	13.2	**100.0**
Pestle	11.9	17.9	70.2	**100.0**	12.1	7.1	80.8	**100.0**
Pumping	51.7	22.1	26.2	**100.0**	67.8	7.9	24.3	**100.0**
Explosive items	1.4	3.6	95.0	**100.0**	5.7	12.6	81.7	**100.0**
Motor riddle	12.0	16.6	71.4	**100.0**	0.0	5.5	94.5	**100.0**
Simple riddle	25.7	25.0	49.3	**100.0**	2.2	3.3	94.5	**100.0**
Slutter	17.4	11.8	70.8	**100.0**	0.0	0.0	100.0	**100.0**
Knotted rope	23.7	17.3	59.0	**100.0**	8.7	2.9	88.4	**100.0**
Other equipments	0.6	5.1	94.3	**100.0**	0.0	0.0	100.0	**100.0**

Percentage distribution of children engaged in informal gold/fluorspar mining, working conditions, by mining type is shown in Table 4.13.

Table 4.13. **Percentage distribution of working children by mining type and whether constant exposure, according to type of working condition**

Type of working condition	Mining type							
	Gold				Fluorspar			
	Usually	Some-times	Never	Total	Usually	Some-times	Never	Total
Under ground in pits	35.9	27.1	37.0	**100.0**	41.9	17.0	41.1	**100.0**
In water	21.5	35.4	43.1	**100.0**	1.9	3.9	94.2	**100.0**
In overheated conditions	43.0	38.0	19.0	**100.0**	35.2	39.9	24.9	**100.0**
In cold conditions	27.2	42.9	29.9	**100.0**	11.8	29.8	58.4	**100.0**
In noisy conditions	37.4	28.5	34.1	**100.0**	14.1	20.3	65.6	**100.0**
In dusty environment	69.4	18.7	11.9	**100.0**	61.4	25.9	12.7	**100.0**
In dirty conditions	60.1	27.9	12.0	**100.0**	42.1	34.6	23.3	**100.0**
In harmful conditions	34.3	26.7	39.0	**100.0**	42.4	15.9	41.7	**100.0**
Use explosives	0.4	6.0	93.6	**100.0**	2.9	16.3	80.8	**100.0**
Use heavy items	64.6	22.2	13.2	**100.0**	67.1	24.6	8.3	**100.0**
Use a sharp point items	62.0	16.9	21.1	**100.0**	75.0	13.7	11.3	**100.0**
Risk to injure	1.7	11.9	86.4	**100.0**	0.0	4.7	95.3	**100.0**
In narrow holes	41.2	21.8	37.0	**100.0**	30.1	27.1	42.8	**100.0**
In higher place	14.5	16.3	69.2	**100.0**	11.1	17.2	71.7	**100.0**
In night time	15.5	33.5	51.0	**100.0**	0.0	22.1	77.9	**100.0**

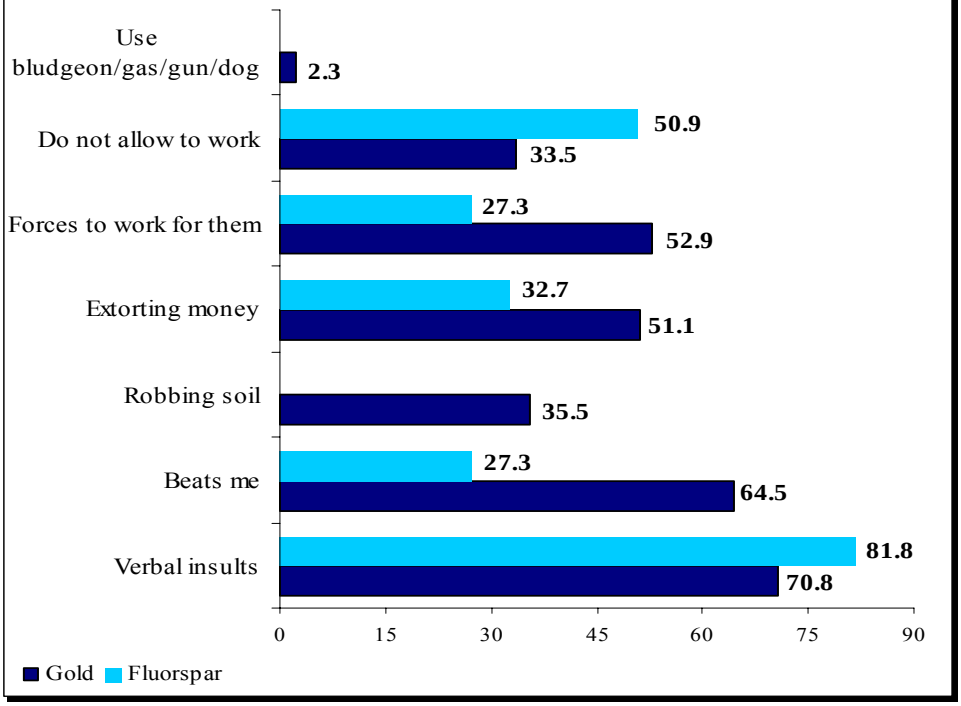
The majority children work in dusty, dirty environment, constantly carrying heavy loads. For instance, of children mining gold 69.4 regularly work in dusty environment, 60.1 percent in dirty conditions. A substantial part of children work in conditions which include some intolerable forms of child labor, such as standing for long hours in water, working underground, in narrow holes, in overheated, harmful conditions. For instance, of children fluorspar 41.9 percent work underground in pits, 35.2 percent work in overheated conditions.

Children mining gold/ fluorspar widely use dangerous sharp tools and sometimes work with explosive substances. For instance, of children mining fluorspar 16.3 percent, of those mining gold 6 percent reported working from time to time with explosives. A large part of children view their working conditions as harmful and dirty, which shows that their awareness of harmful consequences of working at mines is increasing. Apart from this, children continue mining activities at night, of children mining fluorspar 22.1 percent, of those mining gold 33.5 percent sometimes, 15.5 percent regularly work at night.

When children working at informal gold/fluorspar mines were asked about any kind of pressure, or abuse from others, of children mining gold 22.8 percent, of children mining fluorspar 8 percent reported pressure of some kind from the others. These children were subject of pressure from *first*: other persons mining gold, *second*: from local bullies, *third*: from police workers.

Percentage distribution of children engaged in informal gold mining, who experienced pressure from others, kinds of pressure faced by them is shown in Figure 4.7.

Figure 4.7 **Percent distribution of children engaged in informal gold mining, who experienced pressure from others, kinds of pressure faced by them**



Children mining gold/fluorspar most often face such problems and pressure as verbal insults (70.8 percent for children mining gold, 81.8 percent of those mining fluorspar),

beatings (64.5 percent for children mining gold, 27.3 percent of those mining fluorspar), forcing them to do others' work (52.9 percent for children mining gold, 27.3 percent of those mining fluorspar), extorting money (51.1 percent for children mining gold, 32.7 percent of those mining fluorspar). A fact that a large of children are victims of pressure from other persons shows that child rights and interests are often violated in this field.

Duration of working hours and recreation

Percent distribution of children engaged in informal gold mining, duration of working hours, by mining type, by sex is shown in Table 4.14.

Table 4.14 **Percentage distribution of working children by duration of working hours, according to mining type and sex**

Division of working hours	Mining type					
	Gold			Fluorspar		
	Male	Female	All	Male	Female	All
Time for starting work a day						
Before 9 a.m	29.2	25.0	28.4	40.0	43.2	40.6
9-10 a.m	27.9	28.7	28.0	29.6	0.0	24.6
10-11 a.m	29.6	30.8	29.8	20.4	56.8	26.6
11 a.m and after	13.3	15.5	13.7	10.0	0.0	8.2
Mean time (a.m)	***9:06***	***9:18***	***9:12***	***8:48***	***9:00***	***8:48***
Time for finishing work a day						
Before 19 p.m	24.9	30.5	25.0	23.9	30.5	25.0
19-20 p.m	22.3	27.1	26.1	25.8	27.1	26.1
20-21 p.m	26.6	42.4	33.6	31.8	42.4	33.6
21 p.m and after	26.2	0.0	15.3	18.5	0.0	15.3
Mean time (p.m)	***19:30***	***19:12***	***19:24***	***19:24***	***18:36***	***19:12***
Hours for work a day						
Less than 7 hours	22.1	15.7	20.9	23.9	49.2	28.2
7-8 hours	24.6	21.8	24.1	21.3	0.0	17.6
9-10 hours	29.5	42.2	31.8	28.3	33.1	29.1
11 and more hours	23.8	20.3	23.2	26.5	17.7	25.1
Mean	***8:48***	***8:48***	***8:48***	***8:48***	***8:30***	***8:48***
Months for work a year						
1-2 months	19.0	25.9	20.2	19.9	51.3	25.3
3 months	40.5	36.1	39.7	41.3	19.3	37.5
4-6 months	22.1	36.3	24.6	21.1	12.6	19.6
7 and more months	18.4	1.7	15.5	17.7	16.8	17.6
Mean	***4.4***	***3.5***	***4.3***	***4.6***	***3.6***	***4.4***
Whether having intervals in between the work						
Yes	87.8	85.1	87.3	91.2	100.0	92.7
No	12.2	14.9	12.7	8.8	0.0	7.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Estimated no. of child workers	**5993**	**1316**	**7309**	**569**	**118**	**687**

Children working in informal gold mines start work in the morning at about 9 AM and finish work at about 7 PM in the evening. Hours of starting and finishing work are slightly different for boys and girls, i.e. girls start working a little later compared to boys and finish a little earlier. Children working at fluorspar mines start working at about 8-9 AM in the morning and finish at about 7 PM. Boys compared to girls more often work

after 9 PM or at night hours. For instance, of boys mining gold 26.2 percent and of boys mining fluorspar 18.5 percent reported finishing work after 9 PM.

One of indicators determining worst forms of child labor is duration of working hours. According to the ILO recommendations, if duration of working hours is 43 hour per week or exceeds this amount, without regard to the working conditions, it is included into intolerable forms of child labor. In mines, the average duration of working hours per day is 8-9 hours, which exceeds hours stated by the law. Boys work longer hours compared to girls.

The survey shows that most children have time for rest during work, but of total boys 8.8-12.2 percent do not have a possibility to rest during work.

Boys reported working in mines for in average 4-5 months a year, girls work for in average 3-4 months. When the situation is examined by mining type, there was similar result, children mining gold/fluorspar work for in average 4-5 months.

Of children mining gold/fluorspar 90-93 percent work in summer season, i.e. have a seasonal work due to specific features of mining. Although the majority of children work in summer, there is a considerable part of children mining gold and fluorspar in winter, spring and autumn. This leads to inability to realize their right to get education and other rights.

Double employment

Of children mining gold 25.8 percent are engaged in other work along with working in informal mines. Among children mining fluorspar no such cases were observed.

Percentage distribution of children engaged in informal gold mining, who have double employment is shown in Table 4.15 by mining type and by age.

Table 4.15 **Percentage distribution of children engaged in informal gold mining, who have double employment by types of work, according to age**

Types of double employment	Age			
	5-12	13-15	16-17	All
Sells foods retail goods	9.8	2.5	2.0	3.9
Servicing to others*	66.6	37.4	28.0	41.7
Carrying firewood/coal	0.0	17.2	9.8	12.3
Collecting metal/iron	23.6	36.7	0.0	27.3
Working other organization	0.0	4.7	45.1	11.1
Others**	0.0	1.5	15.1	3.7
Total	**100.0**	**100.0**	**100.0**	**100.0**
Estimated no. of double employed children	**389**	**1152**	**346**	**1887**

Note: *- Carrying water, preparing the firewood are included in this category
**- Riding racehorse, washing pewter, painting are included in the "Others" category

Most children with double employment have a job in service, i.e. work as domestic workers. A considerable part of children collects different metals and iron to sell them. By age group, children aged 5-12 mostly engaged in child domestic works and children

aged 13-17 engaged in other organization or some difficult works such as collecting metals and iron.

4.3. Income earned by children engaged in informal gold/fluorspar mining and its expenditure

Almost two in three children answered that they mine gold/fluorspar for their family, the rest reported working for themselves. The above answers do not differ substantially by mining type. 1.9 percent children mining gold and 1.5 percent children mining fluorspar answered that they work for their employers. Of these children mining gold 80.3 percent receive wages from their employer in cash, the rest children receive wages in a non-cash form (food stuff). The average monthly salary paid by the employer is about 75655 MNT. Of children mining fluorspar 100 percent receive wages from their employer in cash, the average monthly salary paid by the employer is about 250000 MNT.

Percent distribution of children engaged in informal gold/fluorspar mining working for themselves or their families, the amount of mineral extracted monthly, monthly income is shown in Table 4.16a and 4.16b, by sex.

Table 4.16à. **Percentage distribution of children engaged in informal gold mining working for themselves or their families by selected characteristics, according to sex**

Selected characteristics	Sex		All
	Male	Female	
Amount			
1.87 or less	20.2	11.7	18.7
1.88- 3.75	28.7	27.4	28.5
3.76-7.50	26.4	39.7	28.7
7.51 oe more	24.7	21.2	24.1
Mean	***6.1***	***5.7***	***6.0***
Average monthly income (MNT)			
1000-24999	15.8	23.6	17.2
25000-49999	31.6	30.7	31.5
50000-74999	24.4	13.8	22.5
75000-100000	18.4	17.9	18.3
101000 or more	9.8	14.0	10.5
Mean	***69404***	***64643***	***68555***
Total	**100.0**	**100.0**	**100.0**
Estimated no. of children working for themselves or their families	**5889**	**1277**	**7166**

Note: 1 USD = 1227 MNT (Mongolian Bank source)

As the Table shows, a child mining gold extracts in average 6 gram of gold per month, boys 6.1 gram, girls 5.7 gram. When the amount of extracted gold is evaluated in currency, boys earn income of 69.4 thousand MNT a month and girls earn 64.6 thousand MNT. It shows that most of boys mining gold extract more gold and earn more money than girls.

As for children mining fluorspar, boys excavate in average 14.3 ton a month, girls 5.1 ton, which is nearly 3 times less than boys. Depending on the amount of fluorspar mined their monthly incomes are also different. Although the number of children mining gold or fluorspar is different, when their monthly income is compared, boys working at fluorspar

mines earn by about 54 thousand MNT more than boys working at gold mines, However, girls working at gold mines earn about 21 thousand more than girls working at fluorspar mines.

However, there is a significant gap between objective income, which should be earned by children mining fluorspar depending on the amount of fluorspar mined and the monthly income reported by the children.

As children grow older, the average amount of gold/ fluorspar mined per month is also increasing. For instance, while the amount of gold mined by children aged 5-12 is 4 gram per month, this indicator grows up to 7.9 gram for children aged 16-17. As a result, the average monthly income derived from mining also increases (for children aged 5-12 it is 46460 MNT, for those aged 16-17 it is 79230 MNT). While the amount of fluorspar mined by children aged 5-12 is 5.7 ton, for children aged 16-17 it goes up to

Table 4.16b. **Percentage distribution of children engaged in informal fluorspar mining working for themselves or their families by selected characteristics, according to sex**

Selected characteristics	Sex		All
	Male	Female	
Amount of monthly excavation (kilograms)			
1000 or less	15.4	37.3	19.2
1001-5000	30.8	36.4	31.8
5001-10000	19.8	17.8	19.5
10000 or more	34.0	8.5	29.5
Mean	***14297***	***5057***	***12686***
Average monthly income (MNT)			
1000-24999	28.5	70.1	35.7
25000-49999	9.7	11.1	9.9
50000-74999	14.3	0.0	11.9
75000-100000	14.0	5.1	12.4
101000 or more	33.5	13.7	30.1
Mean	***123715***	***43451***	***109721***
Total	**100.0**	**100.0**	**100.0**
Estimated no. of children working for themselves or their families	**569**	**118**	**687**

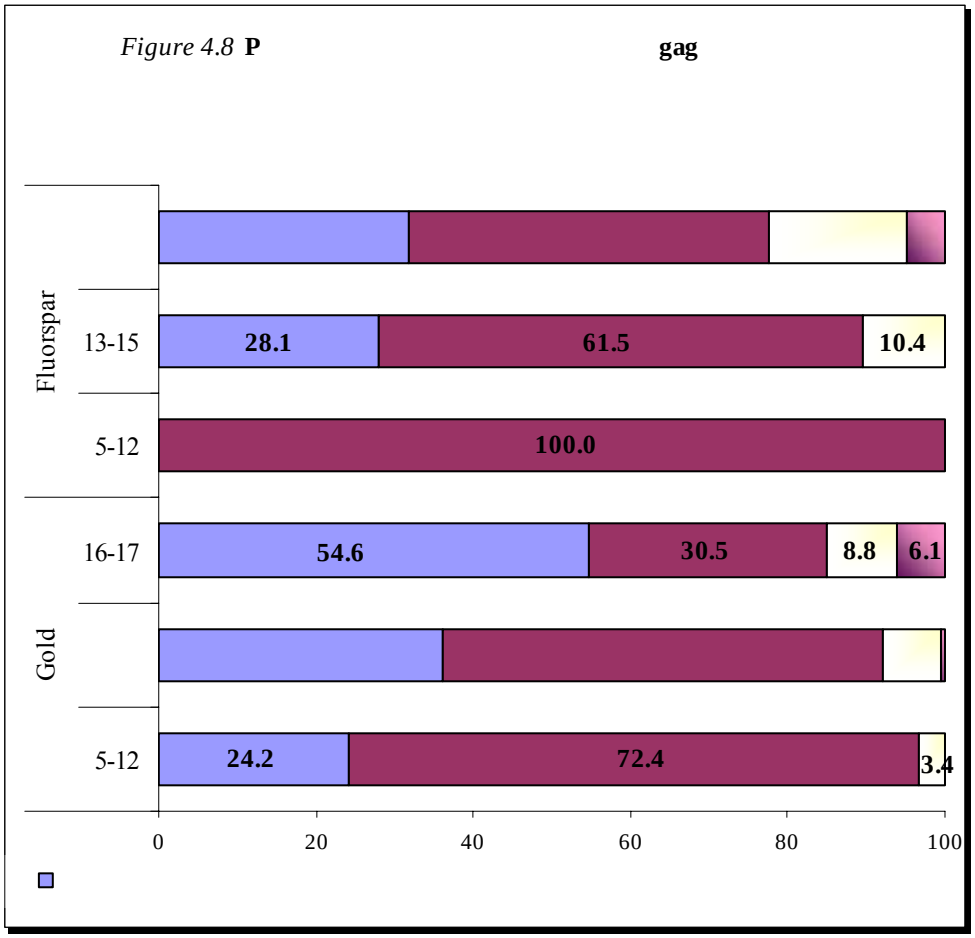
Note: 1 USD = 1227 MNT (Mongolian Bank source)

19.6 ton. The average monthly income derived from fluorspar is 38883 MNT for children aged 5-12, and it increases to 167892 MNT for children aged 16-17.

Percent distribution of children engaged in informal fluorspar mining working for themselves or their families, who sells gold/fluorspar mined by them is shown in Figure 4.8 by mining type and age.

Since 86.6 percent of children mining gold and 100 percent of children mining fluorspar answered that their parents mostly sell mined gold/ fluorspar, it shows that children aged 5-12 working for themselves or their families mostly rely on their parents. As the age of children gets older, children mining gold start selling it themselves. For instance, only 24.2 percent of children aged 5-12 reported selling gold themselves, but 36.2 percent of those aged 13-15 and 54.6 percent of those aged 16-17 reported selling their gold

themselves. An answer that their relatives or co-workers sell the gold/fluorspar mined by children, also takes up a considerable part of answers.



Let us now look at the expenditure derived from informal gold/fluorspar mining by children (Table 4.17).

The highest percentage of children working in gold/fluorspar mining, majority of earned income is expended for household consumption. For instance, of children working at informal gold mining 55.9 percent, 56.2 percent working in fluorspar mining expend for their household consumption. The percentage of boys mining gold, who spend income earned on the household consumption is 18 points higher compared to that of girls. Of girls working in fluorspar mines 9 in 10 spend their income directly on household needs.

While of boys working in informal gold mines 25.1 percent and of girls 30 percent hand over to their family 100 percent of their income derived from mining, the percentage of boys as well as girls who do not give their money to the family or give 1-25 percent of earned money, is very small (2.3-6.4 percent).

Table 4.17. **Percentage distribution of the working children by selected income characteristics, according to mining type and age**

Selected income characteristics	Mining type					
	Gold			Fluorspar		
	Male	Female	Total	Male	Female	Total
Income expenditure						
For household consumption	59.1	41.1	55.9	48.9	91.5	56.2
Purchase needed goods for myself	35.6	51.1	38.3	44.1	8.5	38.0
For pocket money	1.0	0.0	0.8	0.0	0.0	0.0
Pay for education	0.5	2.1	0.8	4.7	0.0	3.9
Savings	2.3	1.4	2.2	0.0	0.0	0.0
Spend for family members	1.5	4.3	2.0	2.3	0.0	1.9
Income spent on family						
Don't give	2.3	4.3	2.7	2.8	0.0	2.3
1-25	5.1	6.4	5.3	5.5	0.0	4.5
26-50	25.5	37.4	27.6	38.6	26.9	36.5
51-75	18.2	10.9	16.9	13.6	0.0	11.2
76-99	13.7	11.0	21.4	11.3	23.5	13.5
100	25.1	30.0	26.1	28.3	49.6	32.0
Average proportion of spent on family	***70.6***	***63.8***	***69.4***	***66.3***	***80.7***	***68.7***
Income contribution towards household living condition						
Main source of household income	8.6	9.1	8.7	11.4	5.1	10.3
Somewhat contribution in household income	54.7	51.5	54.1	69.7	70.3	69.8
Little contribution in household Income	34.9	36.2	35.2	16.0	24.6	17.5
No contribution	1.8	3.2	2.0	2.9	0.0	2.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Estimated no. of child workers	**5993**	**1316**	**7309**	**569**	**118**	**687**

In total children mining gold spend 69.4 percent of income earned on their family, children mining fluorspar spend 68.7 percent of income earned on their family. Of boys working in fluorspar mining 28.3 percent, of girls 49.6 percent hand over 100 percent of their income to the family.

The majority of total children working in informal gold/fluorspar mining answered that, earned income is somewhat contribution in household income. It shows that child workers value their income as well (54.7 percent of children working at gold mining and 69.7 percent of children working at fluorspar mining). However, among the child workers at gold/fluorspar mining percentage of answer as "no contribution" is the lowest.

Of total children 13.8 percent had debts, of them 23.2 percent to their friends, 23.4 percent to other persons, 13 percent to persons working in the mining area, 12.1 percent to their relatives, the rest was indebted to their household members, employers, co-workers. Of these persons indebted to someone 38.6 percent plan to fully repay their debts in a month, 30.3 percent in 2 months, 18.1 percent in 3 months, the rest in 4 or over months.

4.4. Health status and work security issues of children engaged in informal gold/fluorspar mining

4.4.1 Nutrition of children

While at work, 33.3 percent of children mining gold bring food from home, 26.6 percent buy food from canteens at mines, 27.2 percent buy food from individuals, 1.2 percent do not eat at work, the rest cooks their meals in groups or by themselves. Of children mining fluorspar, 65.7 percent brings food from home, 18.5 percent cooks their meals in groups, 12.8 percent cook their meals themselves, the rest buys food from canteens at mines or from individuals.

Percentage distribution of children engaged in informal gold/fluorspar mining, how many times a day they have hot meals is shown in Table 4.18 by mining type and selected indicators.

Table 4.18. **Percentage distribution of working children by mining type and number of hot meals a day, according to selected characteristics**

Selected characteristics	Mining type									
	Gold					Fluorspar				
	Doesn't have	1	2	3 or more	Total	Doesn't have	1	2	3 or more	Total
Age group										
5-12	2.2	35.8	35.7	26.3	**100.0**	7.2	50.6	33.2	9.0	**100.0**
13-15	0.1	20.8	51.9	27.2	**100.0**	0.0	30.0	37.0	33.0	**100.0**
16-17	3.0	24.5	42.3	30.2	**100.0**	13.7	19.8	38.8	27.7	**100.0**
Sex										
Male	1.8	23.0	47.4	27.9	**100.0**	8.8	33.7	34.3	23.2	**100.0**
Female	0.0	35.0	36.9	28.1	**100.0**	0.0	16.8	48.7	34.5	**100.0**
Whether live with parents										
Live with parents/parent	1.3	24.5	47.3	26.9	**100.0**	6.1	32.8	40.8	20.3	**100.0**
Doesn't live with/ Orphan	2.6	32.7	24.7	40.0	**100.0**	16.3	15.0	7.5	61.2	**100.0**
Income interval* (MNT)										
1000-24999	0.0	23.9	64.4	11.7	**100.0**	5.0	40.2	42.3	12.5	**100.0**
25000-49999	1.3	30.6	41.9	26.2	**100.0**	0.0	38.2	17.6	44.2	**100.0**
50000-74999	1.7	34.8	47.3	16.2	**100.0**	47.5	22.5	30.0	0.0	**100.0**
75000-100000	1.2	14.0	47.8	37.0	**100.0**	0.0	33.3	26.2	40.5	**100.0**
100001 and over	0.0	10.5	21.3	68.2	**100.0**	0.0	21.1	45.6	33.3	**100.0**
Total	**1.5**	**25.1**	**45.5**	**27.9**	**100.0**	**7.3**	**30.9**	**36.8**	**25.0**	**100.0**

Note *- Estimated for children working for themselves and families (gold N=7167, fluorspar N=677)

The table shows that children aged 13-17 have a greater number of hot meals a day. While there were no girls, who did not have at least one hot meal a day, of boys mining gold 1.8 percent and of boys mining fluorspar 8.8 percent do not have a hot meal a day.

When children not living with their parents, who do not have hot meals during the working day are compared to children living with their parents, the percentage of children mining gold who do not have hot meals during the working day is 2 times higher and that of children mining fluorspar is 2.7 times higher compared to children living with their parents.

As the monthly income of children engaged in informal gold mining increases, the frequency of hot meals a day increases, too. For instance, the percentage of children mining gold with a monthly income of 100 000 and over MNT, who have hot meals 3 and more times a day, is 4.2 times greater compared to that of children who have income of 50 000- 74 999 MNT, and 2.6 times greater than that of children with income of 25 000-49 999 MNT.

Of total children 91.5 percent answered being satisfied with their meals, but 8.5 percent reported being unsatisfied with their meals. By age groups, the percentage of children mining gold aged 12 or younger (8.4 percent), and those aged 16-17 mining fluorspar (22.7 percent) who reported being unsatisfied with their meals is higher compared to children of other age groups. Of children engaged in informal gold/fluorspar mining 21.2 percent have spent at least one day without a hot meal in the week prior to the survey. These children reported spending in average 2 days a week without hot meals.

4.4.2 Health Status

Of children 29.7 percent have fallen ill while working, 25.4 percent of them have fallen ill a month ago, 27.7 percent 1-3 months ago. At the time of the survey nearly 24 percent of children reported being ill, mostly with respiratory and arthritic genito-urinary system diseases.

While 14 percent of children working in gold mines have had accidents at the workplace and were injured at some time, of children working in fluorspar mines 12.4 percent have had accidents. Results of in-depth interviews show that children were injured falling in pits while fighting with each other for tools, younger children were beaten by older ones and got injured.

However, only 63.3 percent of children who fell ill or were injured at workplace (58.2 percent of children working in gold mines and 43.5 percent of children working in fluorspar mines) got medical assistance or consultation from a medical worker. (Table 4.19)

Box 4.2

When I was working, a child older than me snatched my pan from me. I was using the pan myself at that time, so I started arguing with him and he pushed me into a pit almost 6 meters deep. I fell down on my head and lost consciousness. I awoke feeling something heavy on my chest. When I looked up, the child who pushed me with an adult was at the edge of the pit. The adult took me up from the hole and people went by motorcycle to bring a doctor from the soum center. The doctor came almost 3 hours later and told me that I have a head injury. My head hurts a lot even now. A child who pushed me down came once to the hospital and gave me 2000 tugrug.

(N. D. male, 14 years old, engaged in informal gold mining, studies at school, Bayanhongor, Bumbugur)

Table 4.19. **Percentage distribution of working children, who fell ill while working by selected characteristics, according to mining type and sex**

Selected characteristics	Mining type				
	Gold			Fluorspar	
	Male	Female	Total	Male	Total
Whether got assistance from doctor/health professional					
Yes	55.4	76.8	58.2	43.3	43.3
No	44.6	23.2	41.8	56.7	56.7
Quality of medical service and assistance*					
Very good	7.6	4.1	7.0	0.0	0.0
Good	48.8	53.2	49.6	49.5	49.5
Medium	33.4	30.1	32.7	50.5	50.5
Poor	10.2	12.6	10.7	0.0	0.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Estimated no. of child workers, who fell ill while working	**1884**	**330**	**2214**	**158**	**158**

Note: *- This question is answered from persons who got assistance from doctor/health professional only

Although 37.6 percent of parents paid for medical services, 43.4 percent of children mining gold and 50.5 percent of children mining fluorspar noticed that the quality of services was not satisfactory.

43.1 percent of children who fell ill or were injured were not able to access medical services and 21.4 percent of them reported that remoteness from hospitals and clinics was the reason for not getting medical help. For instance, the distance from the nearest clinic to the gold mine is an average 20.5 km, the distance from the fluorspar mine to the nearest clinic is about 20.8 km.

One in every 3 children who were ill or got injuries continued working despite their illness. The duration of illness was an average 10-11 days, but still they continued working on their own volition.

When we clarified if there were any changes in health status of children since they stated working in mines, of children working in gold mines 21.3 percent, of those working in fluorspar mines 21 percent view that their health worsened since they started mining gold and fluorspar.

4.4.3 Labor protection

Working clothes, tools and equipment

Although only 15.8 percent of children working in gold mines and about 34.1 percent of children working in fluorspar mines reported any knowledge of labor protection issues, about 34.4 percent of these children followed some requirements of labor protection.

Table 4.20 shows in detail protective clothing and tools and equipment used by children by frequency of use.

Table 4.20. **Percentage distribution of working children by mining type and extend of use, according to type of using clothes and equipments**

Type of using clothes and equipments	Mining type							
	Gold				Fluorspar			
	Usually	Some-times	Never	Total	Usually	Some-times	Never	Total
Clothes:								
Rubber waterproof boots	26.0	40.5	33.5	**100.0**	5.2	12.4	82.4	**100.0**
Cloth gloves	71.8	18.3	9.9	**100.0**	76.7	19.2	4.1	**100.0**
Head covering	12.1	13.8	74.1	**100.0**	0.9	15.4	83.7	**100.0**
Rubber gloves	50.4	33.0	16.6	**100.0**	17.8	21.0	61.2	**100.0**
Cowl	71.6	17.7	10.7	**100.0**	22.4	37.4	40.2	**100.0**
Leather boots	35.1	21.0	43.9	**100.0**	37.0	21.5	41.5	**100.0**
Equipments:								
Strong belt	4.0	7.2	88.8	**100.0**	3.6	8.0	88.4	**100.0**
Footholds in shaft walls	8.1	12.4	79.5	**100.0**	1.5	4.8	93.7	**100.0**
Knotted rope for simple	18.4	11.9	69.7	**100.0**	1.7	3.6	94.7	**100.0**
Face mask	19.7	22.2	58.1	**100.0**	15.2	23.2	61.6	**100.0**
Earplugs	17.3	15.5	67.2	**100.0**	10.0	16.7	73.3	**100.0**
Ventilation	7.4	9.5	83.1	**100.0**	0.9	3.1	96.0	**100.0**

Children informally working in harmful mining sector meet the need for working clothes by wearing their everyday clothes such as cowl, leather boots and gloves.

As for tools and equipment they do not use any protective tools and devices other than face masks and earplugs.

Of children engaged in informal gold/fluorspar mining 72.9 percent agree that their working conditions are harmful. Of children mining gold 62 percent evaluated their working conditions as hard, 32.1 percent as average, 5.9 percent as easy, of children mining fluorspar 65.2 percent view their working conditions as hard, 28.7 percent as average, 6.1 percent as easy. As children grow older, the percentage of those agreeing with the above indicators is growing.

Conflict, accidents

In table 4.21 we showed children's thoughts on how often conflicts between miners and police workers happen, how often people are exposed to accidents which happen in mines.

While 22.3 percent of children working in informal gold mines think that conflicts between police workers and miners never happen, 49.6 percent answered that such conflicts happen rarely and only a few times, 11.3 percent that conflicts always happen. About 1/6 of child workers reported not having any knowledge of such issues. Over half of children working in fluorspar mines answered that such conflicts never happen, 24.6 percent that conflicts between police workers and miners happen rarely and only a few times, 8.9 percent that conflicts always happen. About one in ten children were not aware of that issue.

Table 4.21. **Percentage distribution of working children by selected characteristics, according to mining type**

Selected characteristics	Mining type	
	Gold	Fluorspar
Violation between police and worker in mining		
Always	11.3	8.9
Sometimes	42.9	16.2
Rare	6.7	8.4
Never	22.3	56.0
Don't know	16.8	10.5
Incidence of accident		
Always	19.7	8.1
Sometimes	43.8	48.7
Rare	12.8	10.9
Never	6.7	28.8
Don't know	17.0	3.5
Total	**100.0**	**100.0**
Estimated no. of child workers	**7309**	**687**

Of children informally working in gold mines 56.6 percent reported sometimes and few times accidents in mines, while a considerable part (19.7 percent) reported regular accidents. One in every 4 children answered that accidents did not happen, they knew nothing on this issue.Of children informally working in fluorspar mines 59.6 percent answered that there are sometimes accidents in mines, while a considerable part (8.1 percent) reported regular accidents. 32.3 percent of children working in fluorspar mines claimed lack of accidents and denied any knowledge on this issue. Of children working at gold/fluorspar mining is not low (19.7 percent of children working in gold mining and 8.1 percent children working in fluorspar mining). It shows that this kind of work has high risk.

Conflicts among children engaged in informal gold/fluorspar mines, whether they had had any accidents is shown in table 4.22.

Table 4.22 **Percentage distribution of working children by their awareness and mining type, according to selected characteristics**

Selected characteristics	Mining type							
	Gold				Fluorspar			
	Yes	No	DK	Total	Yes	No	DK	Yes
Violation								
Robbing soil	47.6	52.4	-	**100.0**	23.9	76.1	-	**100.0**
Robbing money/belongings	19.7	80.3	-	**100.0**	2.3	97.7	-	**100.0**
Stealing money	35.4	64.6	-	**100.0**	18.9	81.1	-	**100.0**
Fights/hooliganism	60.2	39.8	-	**100.0**	43.4	56.6	-	**100.0**
Drunken arguments	32.7	67.3	-	**100.0**	29.5	70.5	-	**100.0**
Quarrel	5.6	94.4	-	**100.0**	1.5	98.5	-	**100.0**
Accident								
Dead	42.9	28.0	29.1	**100.0**	28.7	59.0	12.3	**100.0**
Disabled	46.8	24.4	29.0	**100.0**	34.8	46.3	18.9	**100.0**
To be delivered to hospital	59.4	18.7	21.9	**100.0**	44.1	44.3	11.6	**100.0**
Injured	72.9	13.1	14.0	**100.0**	69.6	21.8	8.6	**100.0**

As we can see from the table, fights and hooliganism are most widespread among children. Seizing one's soil lifted from pits, stealing other's money/belongings, drunken arguments happen quite often. Among children working in gold mines fights and hooliganism account for the highest percentage, seizing one's soil lifted from pits, stealing other's money/belongings also happen quite often. One fact that drew our attention is that robbery takes place quite often (19.7 percent). Among children working in fluorspar mines in general similar conflicts take place, but robbery is relatively rare (2.3 percent).

Informal mining of minerals is highly risky, is conducted in hard dangerous conditions and is one form of intolerable child labor. Since working conditions in mines are hard and labor safety requirements are not met, accidents frequently take place. When we clarified how often accidents take place among children mining gold, the survey results show that children engaged in informal gold mining frequently had accidents in light or heavy forms. For instance, 42.9 percent of survey respondents have heard about children who lost their lives while working in gold mines, 46.8 percent know of children who became disabled or had severe injuries, 59.4 percent of children who had lighter injuries and 72.9 percent of children who had light injuries. Of children working in fluorspar mines 28.7 percent of survey respondents have heard about children who lost their lives while working in mines, 34.8 percent know of children who became disabled or had severe injuries, 44.1 percent of children who had lighter injuries and 69.6 percent of children who had light injuries.

Box 4.3

In summertime I mostly work with soil. During school I sometimes come to work here at weekends. Last summer a boy 5 years older than me wanted to take my shovel from me and we started arguing. He called me names, beat me and pushed me into a 10 m deep pit. I was told that I was unconscious when I was taken to hospital. One of my relatives took me there. The man who beat me did not meet with any of my relatives and got away without any punishment.

(B.P. male, 15 years old, engaged in informal gold mining, studies at school, Bayanhongor, Bumbugur)

4.5 Leisure time and future aspirations of children engaged in informal gold/fluorspar mining, their habits

4.5.1 Bad habits

Of boys mining gold 16.9 percent, of girls 1.4 percent, of boys mining fluorspar 24.3 percent smoke cigarettes. Children aged over 13, who work in gold mines, smoke in average 9-10 cigarettes a day, children older than 16 working in fluorspar mines smoke in average 5-6 cigarettes a day. There was one child who smoked the greatest number 20 cigarettes a day. Among children aged lower than 13, no any children who smoke.

Of boys working in gold/fluorspar mines 10 percent have tried some kind of alcoholic beverages and 43.9 percent of boys mining gold as well as 28.6 percent of boys mining fluorspar have tried alcohol a few times. There were 15 boys mining gold and 13 boys mining fluorspar, who drink alcohol regularly, weekly.

Percentage of children using drugs, such as inhaling petrol or glue, smoking cannabis is 5.9 percent at gold mines and 6.3 percent at fluorspar mines. Of total children working in gold mines 65.7 percent have tried some of these drugs at least once or twice, 19.9

percent use them weekly, 3.9 percent use them once a month, the remaining 10.5 percent use drugs daily. Of children working in fluorspar mines 43 children (100 percent) who reported having tried drugs, have tried it only once or twice .

Of children working in informal gold mines 1.8 percent answered that prostitution among girls under 18 years old is widespread at gold mines, 3.3 percent view that it is average, 2.7 percent that it is rare, the rest answered that no any prostitution and did not know about it. Only 1.9 percent of children working in fluorspar mines answered that there is occasional prostitution, others answered no any prostitution and they did not know.

Of boys working in gold mines 16.2 percent, of girls 7.7 percent, of boys working in fluorspar mines 13.3 percent were at some time detained or questioned by police workers and reasons of detained or questioned by police are mining gold/fluorspar without permission and fight. Children mining gold 51.8 percent reported being racketed, 43.3 percent reported beaten by them, 31.2 percent reported normal treatment, 16.5 percent were forced to admit a case. Of children mining fluorspar 56.8 percent reported being racketed or threatened and 29.7 percent beaten by police workers, 8.1 percent reported normal treatment, 16.7 percent were forced to admit a case.

4.5.2 Knowledge, attitudes, leisure time, future aspirations

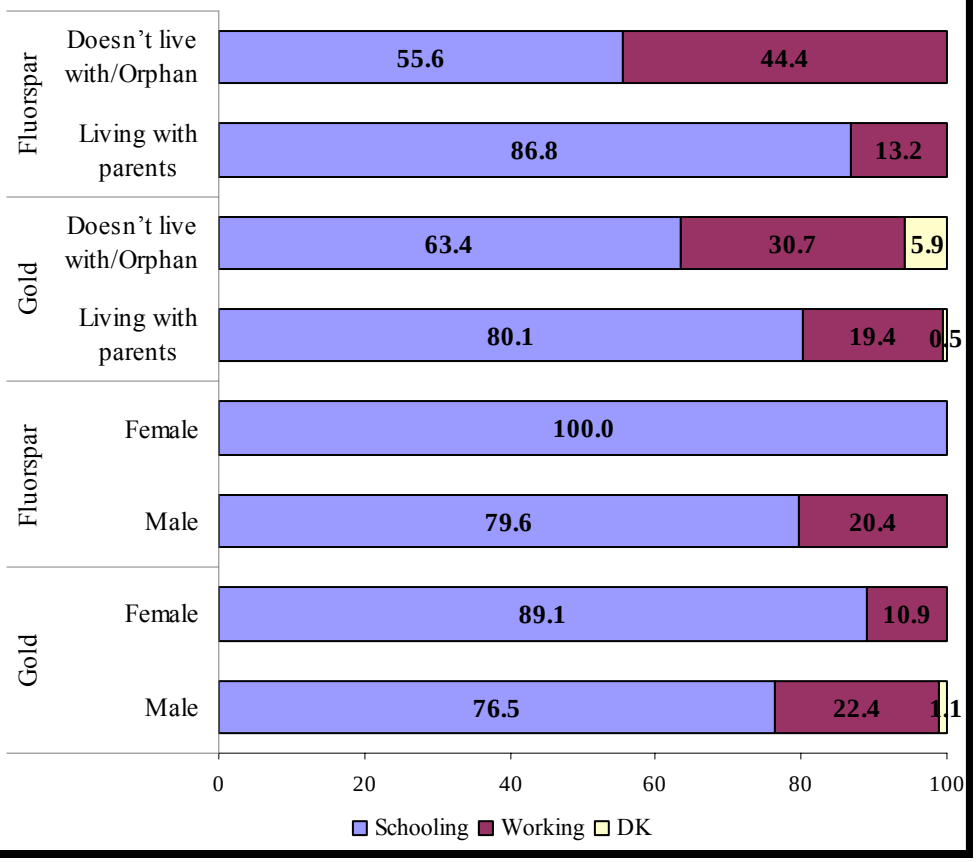
When children engaged in informal gold/fluorspar mining were asked about their leisure time and activities they engage in their free time, the majority reported spending their free time at home. It differs slightly depending on sex of children, and mining type. For instance, the majority of the boys mining gold (64.9 percent) reported staying at home, 12.9 percent wandering in the streets, 7.9 percent going to the mines, 5.2 percent meeting their friends, the rest spends their free time at their relatives', 2 percent reported lack of any free time. As for girls engaged in informal gold mining, the majority of them (92.3 percent) spend their free time at home, meet their friends, visit their relatives, go to entertainment and other public places or spend their free time at the mines.

Boys engaged in informal mining at fluorspar mines, spend their free time at home (82.4 percent), go to entertainment or other public places (4.4 percent), meet with friends (6.2 percent), visit relatives (4.7 percent), wander in the streets (2.3 percent), while girls stay at home (94.9 percent) or spend their free time with friends (5.1 percent).

When the most popular pastime of children are ranked such answers as *first*: playing games, *second*: helping in domestic work, *third*: watching TV, are prevailing. This indicator does not differ substantially with regard to the sex of children and mining type.

Percent distribution of children engaged in informal gold/fluorspar mining, their choice of studying at school or working, by mining type and sex, is shown in figure 4.9.

Figure 4.9. **Percentage distribution of the child workers by future choice, according to mining type, whether living with parents and sex**



When percentage of children living with their parents, who are interested in selecting an opportunity for further studies, is compared to that of children not living with their parents, or orphans, it is 16.7 points and 31.2 points higher for children mining gold and those mining fluorspar respectively. While girls working at fluorspar mines all chose the opportunity to study, this indicator is 89.1 percent for girls working at fluorspar mines, and it is 12.6 and 20.4 points higher compared to that of boys. The figure also shows that boys choose an opportunity to work in greater measure than girls.

When children engaged in informal gold/fluorspar mining were asked if they were interested in work at mines, 46 percent of them gave positive answers. It is not different by the kind of mineral mind, but by sex, it is observed that boys are relatively more interested in their work, compared to girls.

Table 4.23 shows percent distribution of children interested in their wok in mining, by mining type and by the sex.

As for children mining gold, the main reason for their interest in work is an opportunity to support their family (45.6 percent of boys and 60.4 percent of girls). When this indicator is examined by sex, a slightly differentiated picture is observed. While among boys mining gold, besides helping their family, such interests and reasons as having money of their own (by 11 points higher compared to girls), spending time with their friends (by 10.8 points higher compared to girls) are prevailing, among girls, besides helping their families and having money of their own, such reason as earning money needed for studies

(by 7.8 points higher compared to boys or 8.8 percent) takes an important place. It illustrates a fact that girls are very interested in studying, besides wishing to contribute to the household income and have money for their own needs. Boys are more interested in having fun in their free time.

Table 4.23. **Percentage distribution of working children, who like working by reasons, according to mining type and sex**

Reasons	Mining type					
	Gold			Fluorspar		
	Male	Female	Total	Male	Female	Total
Support family	45.6	60.4	47.6	47.2	34.1	45.3
Earn money for schooling	1.0	8.8	2.1	0.0	0.0	0.0
Earn money for food	2.2	1.1	2.0	4.8	0.0	4.1
Earn money for myself	36.9	25.9	35.5	35.3	65.9	39.9
Have fun with friends	11.8	0.9	10.3	12.7	0.0	10.8
Others*	2.5	2.9	2.5	0.0	0.0	0.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Estimated no. of child workers, who like working	**2931**	**452**	**3383**	**252**	**44**	**296**

Note: *- It is nice to see work result, recognizing nature are included in the "Others" category

For children mining fluorspar their interest to work in mining is explained by only a few reasons. For instance, among boys mining fluorspar the prevailing reasons were to help their families (47.2 percent), to have their own money (35.3 percent), because it is fun to work with friends (12.7 percent). Girls answered that they were interested in their work, because they have money of their own (65.9 percent), and help their families (34.1 percent).

Percent distribution of children engaged in informal gold/fluorspar mining, who do not like their work, is shown in table 4.24 by reasons, mining type and by sex.

Table 4.24. **Percentage distribution of working children, who dislike working by reasons, according mining type and sex**

Reasons	Mining type					
	Gold			Fluorspar		
	Male	Female	Total	Male	Female	Total
Work hazard take me sick	3.6	3.2	3.5	4.1	0.0	3.3
Can't go to school	12.7	19.6	14.2	7.9	40.5	14.1
Don't like this kind of work	16.5	25.3	18.5	25.9	0.0	21.0
Too tired	47.1	46.4	46.9	58.2	59.5	58.5
Don't earn much	5.1	1.6	4.3	0.0	0.0	0.0
Work condition is poor/hazardous	8.6	3.9	7.6	0.0	0.0	0.0
Others	6.4	0.0	5.0	3.9	0.0	3.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Estimated no. of child workers, who dislike working	**3062**	**864**	**3926**	**316**	**74**	**390**

Among children engaged in informal gold/fluorspar mining such reasons as being very tired, being not interested in work, having to leave school are the main reasons that affect

their disinterest in work. As for sex, girls more often than boys are not interested in their work, and do not like working as it restricts their studies.

The survey results show that the majority or 85.7 percent of children mining gold, and 78.9 percent of children mining fluorspar agree that their work has negative effect on their health. These indicators are not different by the age and sex. Table 4. 25 shows the level of knowledge on the minimal age for employment according to the Labor law among children.

Table 4.25. **Percentage distribution of working children by knowledge on legal age to start working, according to mining type and sex**

Knowledge on legal age to start working	Mining type					
	Gold			Fluorspar		
	Male	Female	All	Male	Female	All
Minimum age at which the children can work (age 16)						
Knowledge is right (16 years old)	10.8	17.0	12.0	21.1	12.8	19.7
Knowledge is wrong (not 16 years old)	20.6	32.2	22.7	34.3	30.8	33.7
DK	68.6	50.8	65.3	44.6	56.4	46.6
Minimum age at which the children can work in mining (age 18)						
Knowledge is right (18 years old)	9.5	11.3	9.8	24.3	0.0	20.1
Knowledge is wrong (not 18 years old)	10.2	10.3	10.2	15.1	21.2	16.2
DK	80.3	78.4	80.0	60.6	78.8	63.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Estimated no. of child workers	**5993**	**1316**	**7309**	**569**	**118**	**687**

The results illustrate insufficient knowledge on the minimal age for employment among the majority of children. Among children working in gold mines, girls are more knowledgeable compared to boys, among children working in fluorspar mines boys have more knowledge than girls. The main sources if legal information for children are *first:* teachers and educators, *second:* parents, *third*: radio and TV. Children get some information from their older siblings, friends, co-workers, and related books or press.

Results of the present survey show that children engaged in informal gold/fluorspar mining, not only do not want to suggest to others working at mines, but have little interest in continuing working in this field.

While over half (40.6 percent) of children who are interested in continuing their work in gold mining, did not consider duration of their future work in this field, 18 percent plan to work for 1 year, 25.3 percent for 1-3 years, 16.1 percent plan to work for over 3 years. If this indicator is examined by sex, it is observed that girls more often that boys have determined duration of their further work in this field. Among children mining fluorspar compared to those mining gold, no interesting differences were observed.

When children not interested in continuing their work in informal gold/fluorspar mining were asked about their future plans, 71.2 percent of children mining gold were interested in getting basic education, 16.9 percent in obtaining some profession, others plan to become herders, find a job with a good salary, or engage in business. While girls compared to boys are more interested in obtaining basic education (nearly 17.7 points

higher than boys, or 85.1 percent), boys are more interested in studying at some vocational school or professional courses (5.5 points higher or 18.1 percent).

Among children working in fluorspar mines, the majority or 86.7 percent plan to get a basic education, 1.6 percent to get a vocational profession, 9 percent plan to find a job with a good salary.

The majority of children engaged in informal gold/fluorspar mining, wish to become specialists or service sector workers when they grow up, which has the highest percentage compared to other professional categories.

Of children mining gold 16.1 percent, of children mining fluorspar 19.8 percent were given some kind of assistance by the local administrative institutions. The forms of assistance were such as providing them with school supplies (52.2 percent), 14.1 percent involving in refresher training, 13.4 percent distributing among them food.

Percentage of children covered by assistance and support of NGOs is 16.1 percent among children mining gold, and 19.8 percent among children mining fluorspar. Kinds of assistance given by the NGOs are as follows: *first:* distributing among them food, *second:* involving in refresher training supplies, *third:* providing with school

Of children mining gold 9.4 percent and of children mining fluorspar 12.3 percent have participated in such kind of survey at least once previously.

CHAPTER 5. PARENTS OF CHILDREN ENGAGED IN INFORMAL GOLD/ FLUORSPAR MINING

This chapter aims to determine from parents of children engaged in informal gold/fluorspar mining facts about the livelihood of their households, their living conditions, their attitudes towards child labor and employment of the children.

5.1 Profile of households

Survey questionnaires were completed by in total 154 parents of children informally mining gold (122), and fluorspar (32) in Bayankhongor, Dakhan-Uul, Dornogobi, Dundgobi, Uvurkhangai, Umnugobi, Tuv, Selenge and Khentii aimags.

The average number of household members of survey respondents is 5.2 among households of children informally mining gold, and 5.7 among children mining fluorspar. As for sex ratio (the number of males per 100 females), it is 110.9 among households of children mining gold, and 127.2 among households of children mining fluorspar, which is 16.3 higher compared to households of children mining gold (table 5.1). We can see that the average size of households, covered by the study, and the sex ratio is higher compared to the national level, in other words the percentage of men in place covered by the survey is quite high. It can be explained by the fact that due to migration, many men come to these places to engage in mining.

One of the main methods to analyze the age and sex structure of population is determining the median age. While the median age in households with children mining gold is 23.78 for men and 25.28 for women, in households with children mining fluorspar it is 22.22 for men, and 22.70 for women.

When educational level of household members aged 7 and over was examined during the survey, nearly half of the household members (46.0 percent in households with children mining gold and 41.7 percent in households with children mining fluorspar) are non-educated and persons, who have primary education. Another issue of concern here is that percentage of non-educated, illiterate persons is significant (7.7 percent in households with children mining gold and 4.8 percent in households with children mining fluorspar), especially the number of illiterate men mining either kind of mineral is nearly twice higher than that of women. Results of the present survey are consistent with those of other surveys and again prove that less men than women get higher than complete secondary education.

When employment of household members aged 6 and over is examined, the percentage of self employed people, especially people working in informal gold and fluorspar mining. However, there are significant differences by sex. For instance, the percentage of men who reported being engaged in gold mining among households with children mining gold, is 14.6 points higher than that of women, on the contrary, among persons mining fluorspar the percentage of women is higher than that of men by 4.6 points. In households with children mining gold the percentage of boys among household members, who reported studying, is much lower than that of girls and that of children mining fluorspar. It can be concluded that school enrollment of boys in areas with gold mining is more unsatisfactory compared to other areas.

Table 5.1 **Percentage distribution of household members with children engaged in informal gold/fluorspar mining, according to selected characteistics by mining type and sex**

Selected characteristics	Mining type					
	Gold			Fluorspar		
	Male	Female	Total	Male	Female	Total
Age group						
0-14	30.4	30.7	30.5	33.0	39.5	35.9
15-59	68.7	68.6	68.7	66.0	60.5	63.6
60 and over	0.9	0.7	0.8	1.0	0.0	0.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Total population	**336**	**303**	**639**	**103**	**81**	**184**
Median	*23.78*	*25.28*	*24.49*	*22.22*	*22.70*	*22.43*
Education level						
Uneducated/Can not read and write	9.5	5.7	7.7	6.2	2.9	4.8
Uneducated/Can raed and write	10.1	7.1	8.7	13.4	10.3	12.1
Primary	32.5	26.3	29.6	27.8	20.6	24.8
Uncompleted secondary	27.4	28.1	27.8	35.1	30.9	33.3
Secondary	17.7	24.9	21.1	12.4	26.5	18.2
Higher than secondary	2.8	7.8	5.2	5.2	8.8	6.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number of population aged 7 and over	**317**	**281**	**598**	**97**	**68**	**165**
Employment						
Employed	3.1	5.6	4.3	4.0	2.9	3.6
Self employed/ Employer	56.6	40.3	48.9	40.4	46.3	42.9
Unemployed	40.3	54.1	46.8	55.6	50.8	53.5
Workers in gold/flourspur mining out of total population	*46.9*	*32.3*	*40.0*	*37.4*	*42.0*	*39.3*
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number of population aged 6 and over	**322**	**288**	**610**	**99**	**69**	**169**

When the profile of survey respondents is studied, of respondents with children mining gold fathers account for 32.0 percent and mothers account for 68.0 percent, of respondents with children mining fluorspar fathers account for 31.2 percent and mothers account for 68.8 percent (Table 5.2). The average age of fathers and mothers of children mining gold is 42.38 and 39.95 respectively, that of fathers and mothers of children mining fluorspar is 43.30 and 38.50.

While households with 2-4 members make up the highest percentage among households with children mining gold (39.3 percent), households with 5-6 members make up the highest percentage among households with children mining fluorspar (46.9 percent).

Table 5.2 **Percentage distribution of parents covered by the survey, according to demographic characteristics by mining type and sex**

Selected characteristics	Mining type					
	Gold			Fluorspar		
	Male	Female	Total	Male	Female	Total
Age						
Less than 36	10.3	25.3	20.5	10.0	36.4	28.1
36-40	28.2	28.9	28.7	20.0	22.7	21.9
41-45	33.3	22.9	26.2	20.0	27.3	25.0
46 and over	28.2	22.9	24.6	50.0	13.6	25.0
Mean age	*42.38*	*39.95*	*40.73*	*43.30*	*38.50*	*40.00*
Number of population living in the household						
2-4	38.5	39.8	39.3	20.0	27.3	25.0
5-6	28.2	41.0	36.9	50.0	45.5	46.9
7 and over	33.3	19.3	23.8	30.0	27.3	28.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number	**39**	**83**	**122**	**10**	**22**	**32**

The number of children mining minerals per household is shown in Table 5.3 by the mining type and selected indicators.

Table 5.3 **Percentage distribution of parents, according to mining type and number of children engaged in informal gold/fluorspar in households by selected characteristics**

Selected characteristics	Number of children engaged in informal gold/fluorspar mining in the one household								Total
	Gold				Fluorspar				
	1	2	3	Number of respondents	1	2	3	Number of respondents	
Marital status of the parents									
Married/Lining together	92.9	5.1	2.0	98	89.7	10.3	0.0	29	**100.0**
Others	83.3	12.5	4.2	24	100.0	0.0	0.0	3	**100.0**
Number of population living in the household									
2-4	93.7	6.3	0.0	48	100.0	0.0	0.0	8	**100.0**
5-6	86.7	11.1	2.2	45	93.3	6.7	0.0	15	**100.0**
7 and over	93.1	0.0	6.9	29	77.8	22.2	0.0	9	**100.0**
All	**91.0**	**6.6**	**2.5**	**122**	**90.6**	**9.4**	**0.0**	**32**	**100.0**

Of respondents with children mining gold, 80.3 percent are married or have cohabitants, for respondents with children mining fluorspar this indicator is 90.6 percent. When correlation between marital status of parents and the number of children engaged in mineral mining was examined, it is observed that single fathers/mothers tend to have more children engaged in gold mining. Since the number of single respondents with children mining fluorspar is very small, we cannot give an explanation.

It can be concluded from the table that as the size of households increases, the number of children engaged in mining increases, too.

5.2 Living conditions of households

Let us study living conditions of households covered by the survey. Although the majority of total respondents live in a ger (68.9 percent of households with children mining gold, and 75.0 percent of households with children mining fluorspar) there are also households living in places not suited for living (1.6 percent of households with children mining gold, and 3.1 percent of households with children mining fluorspar). It is necessary to notice that there were a number of households mining gold that live in trailers, tents, huts.

Table 5.4 **Percentage distribution of parents, according to indicators of living conditions by mining type**

Indicators of living conditions	Mining type	
	Gold	Flourspur
Type of living quarters		
Ger	68.9	75.0
House	16.4	15.6
Apartment	13.1	6.3
Others	1.6	3.1
Type of ownership		
Own	91.0	81.3
Not own:		
Rented	5.7	3.1
Employer provides free	0.0	3.1
Relatives/Friends provide free	3.3	9.4
Organization provide fee	0.0	3.1
Whether shareliving quarter		
Yes	12.3	15.6
No	87.7	84.4
Evaluation of the living quarter		
Poor	12.3	21.9
Fair	60.7	46.9
Good	27.0	31.3
Main source of drinking water		
Centralized water	9.8	9.4
Protected well	43.4	50.0
Unprotected well	18.9	37.5
Creek/stream	18.9	3.1
River	9.0	0.0
Main source of fuel for cooking		
Electricity	9.0	18.8
Wood	59.8	25.0
Coal	4.1	9.4
Dung	27.0	46.9
Total	**100.0**	**100.0**
	122	**32**

Number

Although the majority of respondents evaluated their housing as average, one in every 5 households mining fluorspar evaluated their housing as bad. About half of households with children engaged in mining use drinking water from reliable sources, wells. An issue of concern here is use of drinking water from unreliable sources by households residing in areas with gold mining. As the table shows, 27.9 percent of households mining gold, use drinking water from open water sources.

Sources of energy for cooking differ among households mining gold and fluorspar. The majority of households mining gold, or 59.8 percent, use wood for lighting fire for cooking, while among households mining fluorspar 46.9 percent use animal dung. One in 4 households mining fluorspar have a source of electric power. The geographical position of mineral mines, development of infrastructure in the area affect in great measure kinds of energy sources used by households.

Of households with children mining gold 29.5 percent, of households with children mining fluorspar 15.6 percent have private livestock. By kinds of livestock owned by a household, an average household has mostly sheep, goats, and a few horses and cows (Table 5.5).

Table 5.5. **Average number of livestock in households with livestock by mining type, according to kind of livestock**

Kind of lvestock	Average number of livestock in the households	
	Gold	Fluorspar
Sheep	23.14	15.00
Goat	38.97	14.80
Cow	4.92	0.00
Horse	3.58	0.60
Camel	0.64	0.00
Number of households with livestock	**36**	**5**

It can be seen from the table, that the number of livestock per household is very modest. A conclusion can be made that households left without any livestock or with a few livestock, engage in gold/fluorspar mining to sustain their livelihood.

5.3 Migration

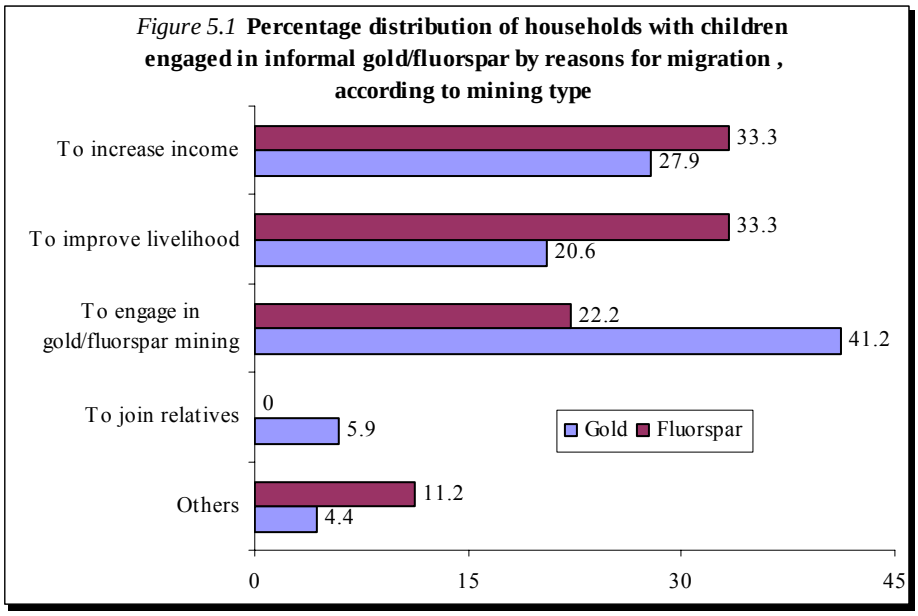
In the recent years, one of the main flows of internal migration is a flow of migration of households and individuals to areas where informal mining of minerals is conducted, for permanent or temporary residence. Since the present survey was conducted in the cold season, individuals from other aimags and towns, who come for a short period to engage in mining, were not covered by the survey. Local residents told us that in summer time, the number of persons working at mines is the greatest, and children also come during vacations to work here.

As answers of parents with children engaged in gold mining show, of total households 27.9 percent are migrant households. Of migrant households 41.2 percent are residing here temporarily, the remaining 58.8 percent have lived in the area for less than 5 years. Of total 35 households with children mining fluorspar covered by the survey, 3 live here temporarily, 2 have lived in this area for less than 5 years.

When migrant households mining gold were classified by the regions, households from Western, Hangai, and Central regions account for 8.8 percent each, those from Eastern region – for 2.9 percent, from the capital city – for 11.8 percent, from other soums of the given aimag – for 58.8 percent. As for migrant households mining fluorspar, 2 households came from the Central region, 2– from the Eastern region, 1– from the capital city. While among households mining gold, the main reason for migration was a wish to work in gold

mine (41.2 percent), to increase the household income (27.9 percent), among households mining fluorspar such reasons as improving their livelihood and working at fluorspar mines (33.3 percent each) were prevailing (Figure 5.1).

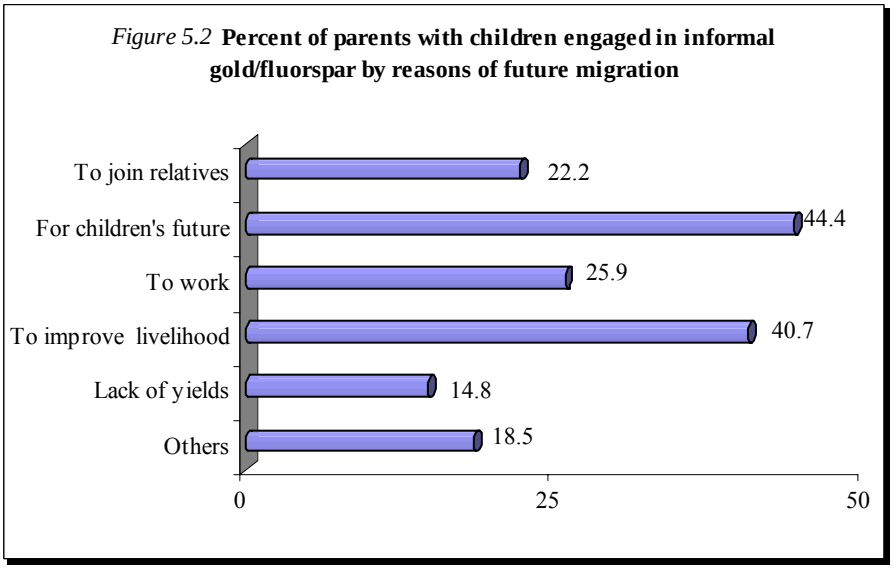
Figure 5.1 **Percentage distribution of households with children engaged in informal gold/fluorspar by reasons for migration , according to mining type**



When parents covered by the survey were asked about participation of their households in further migration, in other words, if the household of respondent plans to migrate in the future, 22.1 percent of parents with children mining gold and 6.3 percent (2 persons) of parents with children mining fluorspar answered that their households will move to other aimag/soum.

Percent distribution of parents wishing to move in the future is shown in fugure 5.2 by reasons.

Figure 5.2 **Percent of parents with children engaged in informal gold/fluorspar by reasons of future migration**



Of parents, wishing to move in the future, 44.4 percent wish to move to the city due to concern about their children's future, 40.7 percent- in order to improve their livelihood, which account for the highest percentage among total answers. Asked about the time of their planned move, one in four parents reported planning to move in 1-3 months, 29.6

percent - in 4-12 months, 18.5 percent - in over one year later, the rest did not plan the time of the move.

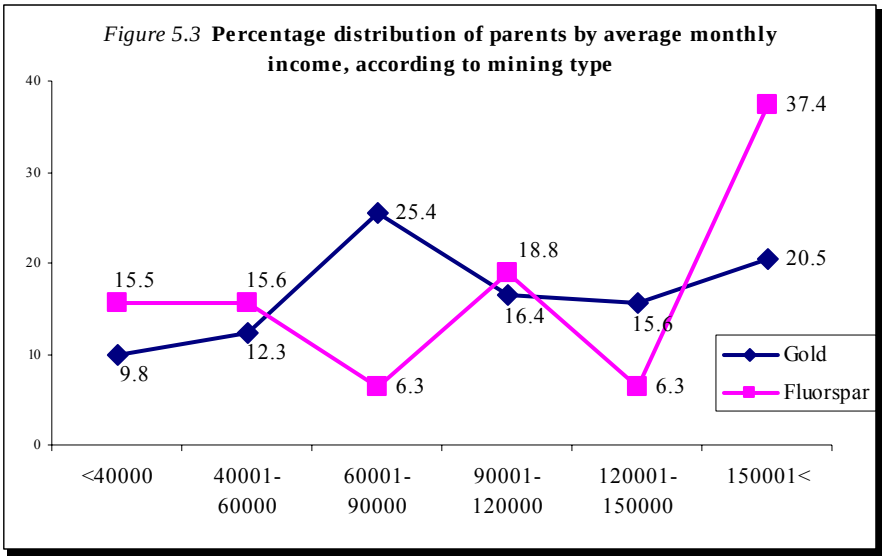
Note: of 2 respondents with children mining fluorspar, one wishes to move to the city in order to find a job, the other one - thinking about the future of the children.

The majority of respondents who do not wish to move, listed such reasons as "we got used to the area" (48.4 percent for those mining gold, and one in two persons mining fluorspar), "it is better to be close to the mine" (28.4 percent for those mining gold, and one in two persons mining fluorspar).

5.4 Household income and livelihood

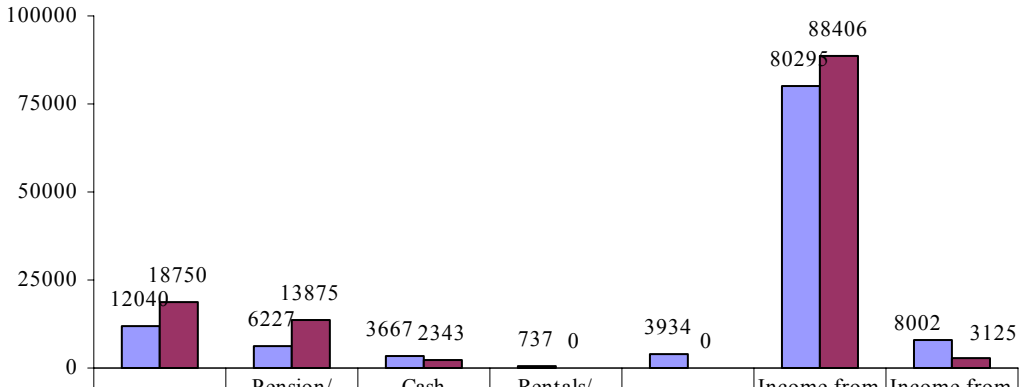
Asked about the average monthly income of their households, parents with children mining gold reported an average monthly income of 114.906 MNT, and households mining fluorspar - 126.500 MNT. When the average monthly income of households is classified by the indicator of interval level, the number of households with income lower than minimal living standards among households mining gold is 12 (9.8 percent), and 5 (15.6 percent) among households mining fluorspar. It is interesting, that percentage of households with income higher than 150.000 MNT is 17.0 points higher among households mining fluorspar in comparison to those mining gold (Figure 5.3).

Figure 5.3 **Percentage distribution of parents by average monthly income, according to mining type**



The structure of an average monthly income of households was calculated and shown in Figure 5.4 by the mining type. The above calculations show what the average monthly income of household is composed of, from what kind of income. Among households, covered by the survey, nearly 70 percent of their monthly income is comprised from income derived from gold/fluorspar mining.

Figure 5.4 **A mean calculation of the structure of an average monthly income of households by the mining type**



	Wage/Salary	Pension/ Social allowances	Cash remittances/ Gifts	Rentals/ Interest income	Business income	Income from gold/ fluorspar	Income from agriculture production
Gold	12040	6227	3667	737	3934	80295	8002
Fluorspar	18750	13875	2343	0	0	88406	3125

Let us see if this income is sufficient for livelihood of households (Table 5.6).

Table 5.6 **Percentage distribution of parents covered by the survey by mining type and sufficiency of household income for livelihood, according to selected characteristics**

Selected charactersictics	Suffiency of household income								Total
	Gold				Fluorspar				
	Sufficient	Mode-rate	Not sufficient	Number	Sufficient	Mode-rate	Not sufficient	Number	
Migration status									
Migrant	8.8	38.2	52.9	34	0.0	20.0	80.0	5	**100.0**
Non migrant	6.8	37.5	55.7	88	0.0	25.9	74.1	27	**100.0**
Number of population in the household									
2-4	10.4	43.8	45.8	48	0.0	25.0	75.0	8	**100.0**
5-6	6.7	33.3	60.0	45	0.0	33.3	66.7	15	**100.0**
7 and over	3.4	34.5	62.1	29	0.0	11.1	88.9	9	**100.0**
Household's average income per month (tugrug)									**100.0**
40000 or less	8.3	33.3	58.3	12	0.0	0.0	100.0	5	**100.0**
40001-60000	0.0	26.7	73.3	15	0.0	20.0	80.0	5	**100.0**
60001-90000	3.2	25.8	71.0	31	0.0	50.0	50.0	2	**100.0**
90001-120000	0.0	45.0	55.0	20	0.0	33.3	66.7	6	**100.0**
120001-150000	15.8	47.4	36.8	19	0.0	0.0	100.0	2	**100.0**
150001 and over	16.0	48.0	36.0	25	0.0	33.3	66.7	12	**100.0**
All	**7.4**	**37.7**	**54.9**	**122**	**0.0**	**25.0**	**75.0**	**32**	**100.0**

Over half of parents mining gold, reported insufficiency of their monthly income to sustain livelihood, 7.4 percent considered it sufficient. As for parents mining fluorspar, nobody gave an answer that their average monthly income was sufficient, 3 in 4 persons considered it insufficient, and one evaluated it as of average sufficiency.

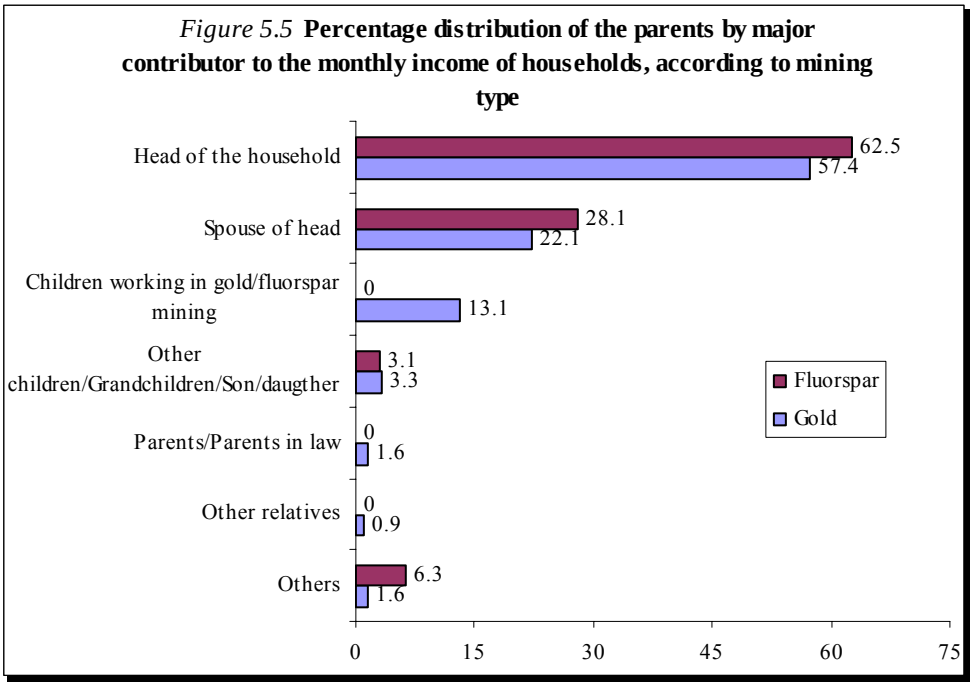
As the size of households increases, the percentage of answers that the average monthly income is insufficient increases, too, and as the household income improves, the percentage of positive answers goes up.

When the team looked at the correlation between employment status of parents covered by the survey, and the sufficiency of an average monthly income of the household, the percentage of persons engaged in private business and herders, who view their average monthly income as sufficient, is higher compared to other respondents.

Figure 5.5 shows percent distribution of the major contributor to the monthly income of households by the mining type.

The answer that the head of the household contributed in the greatest measure to the average monthly income of the household, has the highest percentage (57.4 percent of households mining gold, and 62.5 percent of households mining fluorspar). One interesting issue here is that the percentage of parents who answered that their children generated the majority of the household income was considerable among households mining gold (13.1 percent). Among households mining fluorspar there were no such answers.

Figure 5.5 **Percentage distribution of the parents by major contributor to the monthly income of households, according to mining type**



Another interesting question included in the survey was the question asking about sufficient nutrition of household members engaged in gold/fluorspar mining. Although we did not include detailed questions about the quality of food and calories intake, we asked about hot meals eaten by household members.

According to answers of parents from households with children mining gold, 45.9 percent of these households do not regularly have a hot meal a day, the percentage of those who answered they did not have hot meals everyday (8.2 percent) is considerable.

Table 5.7 **Percentage distribution of parents covered by the survey by sufficiency of food of household members and mining type, according to selected characteristics**

Selected characteristics	Sufficiency of food of household members								Total
	Gold				Fluorspar				
	Often	Sometimes	Seldom/ No	Number	Often	Sometimes	Seldom/ No	Number	
Number of population in the household									
2-4	53.8	33.3	8.3	48	62.5	37.5	0.0	8	**100.0**
5-6	44.4	48.9	6.7	45	26.7	66.7	6.7	15	**100.0**
7 and over	27.6	62.1	10.3	29	33.3	55.6	11.1	9	**100.0**
Household's average income per month (tugrug)									
40000, or less	33.3	50.0	16.7	12	20.0	80.0	0.0	5	**100.0**
40001-60000	26.7	53.3	20.0	15	0.0	100.0	0.0	5	**100.0**
60001-90000	32.3	58.1	9.7	31	100.0	0.0	0.0	2	**100.0**
90001-120000	55.0	45.0	0.0	20	33.3	33.3	33.3	6	**100.0**
120001-150000	52.6	36.8	10.5	19	50.0	50.0	0.0	2	**100.0**
150001 and over	68.0	32.0	0.0	25	50.0	50.0	0.0	12	**100.0**
All	45.9	45.9	**8.2**	**122**	**37.5**	**56.3**	**6.3**	**32**	**100.0**

As for households with children mining fluorspar, the percentage of answers claiming to have regular hot meals everyday is 8.4 points lower than that of households mining gold, but the percentage of answers claiming not having hot meals or having them rarely is 1.9 points lower.

As the table shows, similarly to answers to the question on sufficiency of the average monthly income of households, as the size of household increases, the percentage of answers claiming to have everyday hot meals declines, and as the average monthly income increases, the percentage of such answers goes up. On the contrary, the percentage of answers claiming not having hot meals or having them rarely increases as the size of families increases, and as the average monthly income declines, such answers were given more often. This trend is similar among households mining either kind of mineral.

When we asked parents covered by the survey about children of preschool age, of respondents with children mining gold 28.7 percent, of those with children mining fluorspar 40.6 percent gave positive answers. In half of households with children of preschool age both parents work in gold mines (Figure 5.6A).

Figure 5.6A **Percentage distribution of parents with young children, who are mining gold by participation in informal gold mining**

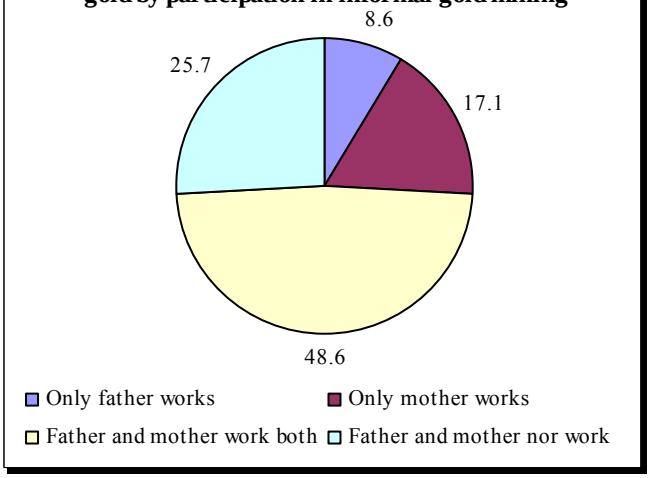
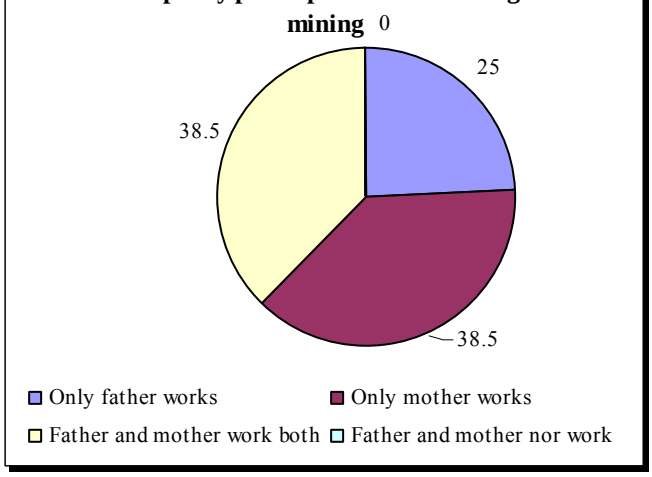


Figure 5.6B **Percentage distribution of parents with young children, who are mining fluorspar by participation in informal gold mining**



While the percentage of answers stating that both parents did not work in gold mining was quite high among parents of households engaged in gold mining (25.7 percent), there was no such answer among households mining fluorspar. There was quite a high percentage of answers that parents with young children take them to work (30.8 percent) or that older siblings look after them (28.2 percent).

When members of households with children engaged in gold/fluorspar mining covered by the survey fell ill, they mostly went to the clinic (76.2 percent of families mining gold, 87.5 percent of those mining fluorspar). Percentage of respondents stating lack of access to medical services equals 4.9 percent among gold miners and 3.1 percent among fluorspar miners.

Results of the survey illustrate that households engaged in gold/fluorspar mining have limited opportunities for accessing social services. To clarify, only 39.3 percent of gold miners have access to small loan services, 47.5 percent- to education programs, 41.0 percent- to workplace projects and programs, 45.1 percent- to agricultural livestock breeding projects and programs. While of fluorspar miners 50.0 percent have an opportunity to access small loans services, 43.8 percent have access to education programs, 31.3 percent- to work place projects and programs, 25.0 percent- to agricultural livestock breeding projects and programs.

Box 5.1

For over 2 years a "Sustainable livelihood" project is being implemented in our soum and it provides people with small loans in the amount of 300 thousand to 1 million MNT. There are people who took a 300 thousand MNT loan in the frame of this project and bought some livestock, there is a number of people who improved their livelihood by operating a small shoe workshop or a bakery.

(N, female, 40 years old,Umnugobi, Tsogt Ovoo)

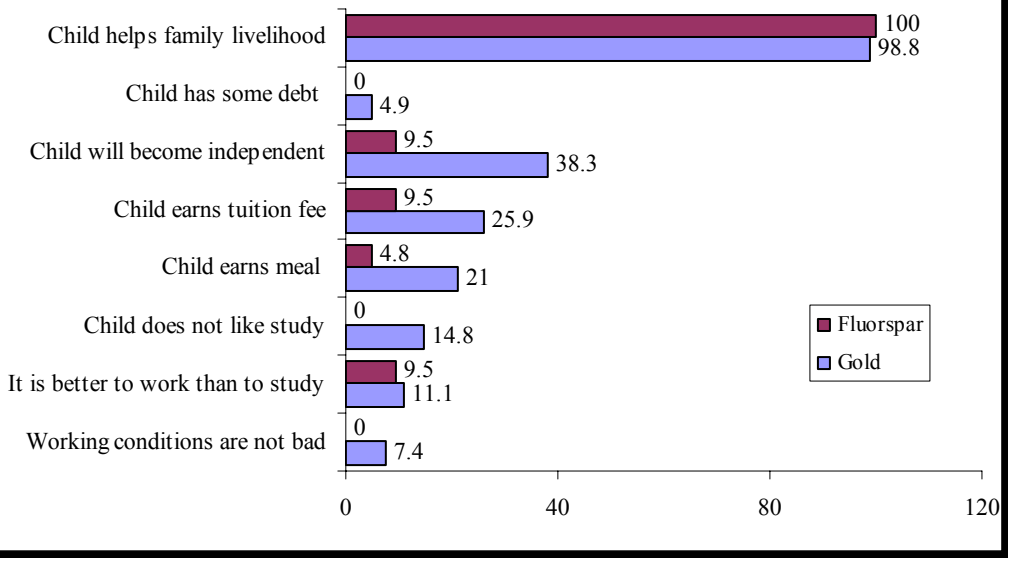
5.5 Parents' views on children's employment

When parents with children working in gold/fluorspar mines were asked whether their children lived with them, the majority gave positive answers (95.1 percent of those engaged in gold mining, 100.0 percent of those engaged in fluorspar mining). Of 6 children mining gold, who do not live with their parents, 1 child lives at his employers', the remaining 5 live at their relatives' or friends'.

Of these children 2 visit their families everyday, the rest visits them once in 2.3 days, once in 2 weeks or once a month. An issue of concern is that 66.2 percent of parents answered that they accept a fact of their children mining gold/fluorspar.

For what reason parents agree to their children to engage in gold/fluorspar mining is shown in figure 5.7 by the mining type. The main reasons for parents to accept their children engaging in gold/fluorspar mining are as follows: they help to sustain household livelihood (98.8 and 100.0 percent), children will learn to live independently and learn to work (38.3 and 9.5 percent), children earn money for their education (25.9 and 9.5 percent). Among reasons for accepting work of children in gold mining an answer "children find food for themselves there" made up a quite high percentage (21.0 percent). Unfortunately, the percentage of parents who view working conditions in gold/fluorspar mining as not very bad is also significant.

Figure 5.7 **Percent of parents who consent to work of their children in gold/ fluorspar mining by reasons, according to mining type**



When reasons for not accepting work of their children in gold/ fluorspar mines was clarified from parents the following reasons prevailed: children should study at school (51.2 and 45.5 percent), the health of children deteriorates (58.5 and 54.5 percent), hard working conditions (63.4 and 63.6 percent). The answer "I do not consent to children in gold mining because children are abused" made up 12.2 percent (Figure 5.8).

Figure 5.8 **Percent of parents who not consent to work of their children in gold/ fluorspar mining by reasons, according to mining type**

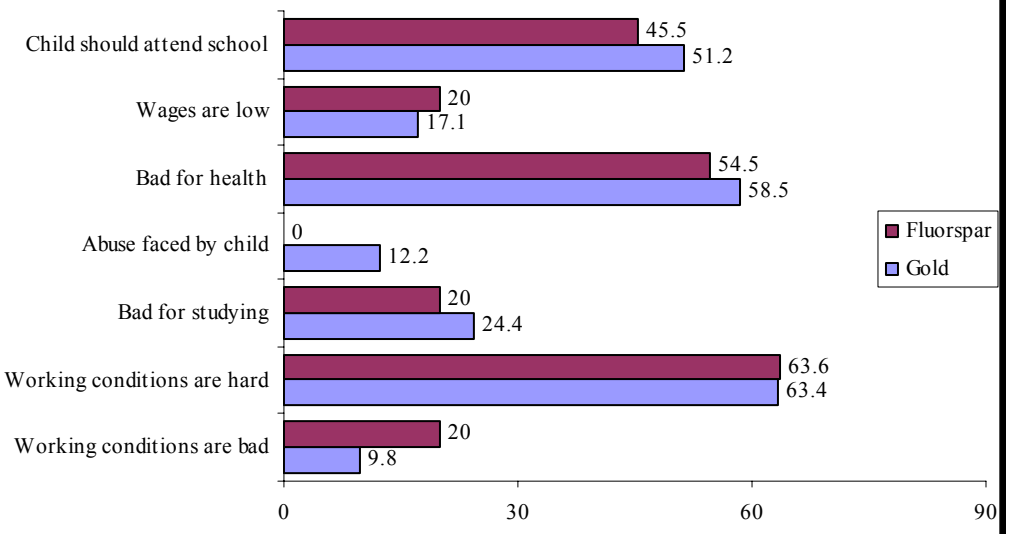


Table 5.8 shows evaluation of working conditions of children by their parents, by the mining type.

Most parents answered that their children engaged in gold/fluorspar mining do not have time to rest and relax during the workday (93.4 and 96.9 percent), but there are also parents who do not know if their children have time to take a break during the workday (3.3 percent). Parents think that most children have some time to eat and drink during the work day.

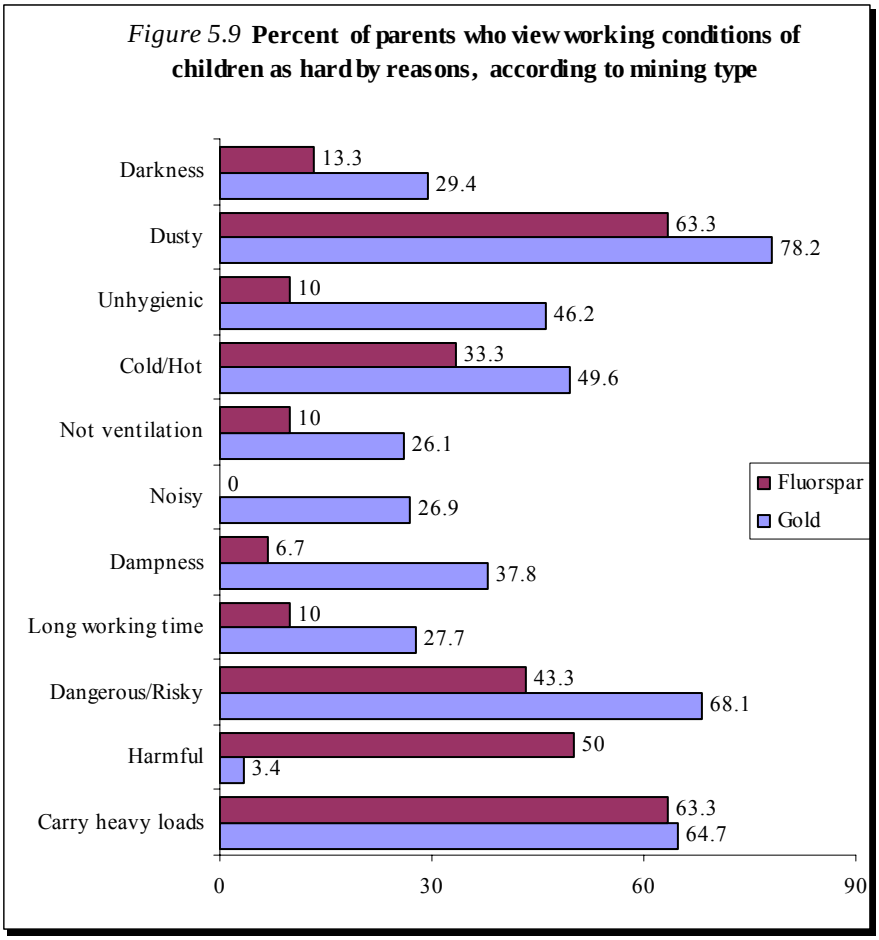
While 4 in every 5 parents view working conditions in gold fluorspar mining as hard and harmful, there are also parents who regard working conditions as normal. Percentage of parents with children mining fluorspar who gave this answer is twice higher than that of parents with children mining gold.
The percentage of answers stating that children work 9 and over hours a day (29.5 and 31.2 percent), children are exhausted (69.7 and 75.0 percent) is the highest compared to other answers. It is very worrying that there are parents, although few, who do not know and do not care about working conditions of their children, or who consider their working conditions satisfactory.

Table 5.8 **Percentage distribution of parents by evaluation of working environment and working conditions of their children, according to mining type**

Parents' evaluation of working environment and working conditions of their children	Mining type	
	Gold	Flourspur
Whether child has opportunity to rest during the work a day		
Yes	93.4	96.9
No	3.3	3.1
Do not know	3.3	0.0
Whether drinking water is available during child's work a day		
Yes	94.3	96.9
No	4.1	0.0
Do not know	1.6	3.1
Whether food is available during child's work a day		
Yes	92.6	100.0
No	4.9	0.0
Do not know	2.5	0.0
Conditions of working place		
Very difficult	80.3	81.3
Difficult	17.2	12.5
Not difficult	2.5	6.3
Working hours a day		
1-4 hours	17.2	21.9
5-6 hours	17.2	25.0
7-8	21.3	21.9
9 and over	29.5	31.2
Do not know	14.9	0.0
Working days a week		
1-3 days	19.7	28.1
4-5 days	21.3	18.8
6-7 days	49.2	53.1
Do not know	9.8	0.0
Whether child tired due to work		
Very tired	69.7	75.0
Moderate tired	20.5	12.5
Not very tired	4.1	9.4
Do not know/Do not observe	5.7	3.1
Total	**100.0**	**100.0**
Number	**122**	**22**

Let us clarify why parents view working conditions of their children mining gold/fluorspar as hard.

Figure 5.9 **Percent of parents who view working conditions of children as hard by reasons, according to mining type**



In parents' view, the main 3 reasons for considering working conditions of children mining gold as hard are as follows: *first,* it is dusty (78.2 percent), *second,* dangerous/risky (.68.1 percent), *third,* they carry heavy loads (64.7 percent). Parents of children mining gold listed such reasons as *first,* it is dusty, they carry heavy loads (63.3 percent each), *second,* children work in harmful conditions (50.0 percent), *third,* dangerous/risky (43.3 percent).

In order to test knowledge of parents covered by the survey, we asked if they knew that children under 18 years old were prohibited by law to work in the mines. Of parents with children mining gold 77.9 percent, of those with children mining fluorspar 87.5 percent answered positively. A question about how parents evaluate wages of their children was included in the questionnaire (Table 5.9).

As the table shows, over half of parents view that wages of children earned from gold/fluorspar mining make an average contribution to the household livelihood. It is interesting that the percentage of parents with educational level higher than complete secondary education, who view contribution of their children as small, is higher than that of other answers. The percentage of fathers who view wages of their children as making small contribution to the household is 1.7 times that of mothers who gave such an answer.

Table 5.9 **Percentage distribution of the parents by opinion on of their children and by mining type, according to selected characteristics**

Selected characteristics	**Opinion on wage of their children**						**Total**
	Gold			Flourspur			
	Low	Moderate	High	Low	Moderate	High	
Sex							
Male	30.8	51.3	17.9	20.0	60.0	20.0	**100.0**
Female	18.1	53.0	28.9	27.3	59.1	13.6	**100.0**
Age							
Less than 35	8.0	56.0	36.0	44.4	44.4	11.2	**100.0**
36-40	22.9	57.1	20.0	0.0	85.7	14.3	**100.0**
41-45	31.3	37.5	31.3	25.0	50.0	25.0	**100.0**
46 and over	23.3	60.0	16.7	25.0	62.5	12.5	**100.0**
Education level							
Uneducated/Can raed and write	20.0	60.0	20.0	0.0	0.0	0.0	**100.0**
Primary	25.0	41.7	33.3	50.0	50.0	0.0	**100.0**
Uncompleted secondary	24.5	53.1	22.4	6.3	75.0	18.8	**100.0**
Secondary	14.3	52.4	33.3	36.4	45.5	18.2	**100.0**
Higher than secondary	35.7	57.1	7.1	66.7	33.3	0.0	**100.0**
Household's average income per month (tugrug)							
40000 or less	25.0	58.3	16.7	20.0	80.0	0.0	**100.0**
40001-60000	40.0	40.0	20.0	0.0	80.0	20.0	**100.0**
60001-90000	35.5	41.9	22.6	0.0	50.0	50.0	**100.0**
90001-120000	5.0	75.0	20.0	50.0	50.0	0.0	**100.0**
120001-150000	21.1	47.4	31.6	0.0	50.0	50.0	**100.0**
150001 and over	8.0	56.0	36.0	33.3	50.0	16.7	**100.0**
All	22.1	52.5	25.4	25.0	59.4	15.6	**100.0**

Evaluation by parents of possible risks to the health of their children s shown in Table 5.10. Over two thirds of total respondents answered that gold/fluorspar mining puts the health of children at high risk. The percentage of this answer goes up with increase of educational level of parents. There is a certain percentage of parents who answered that it is not risky. Especially, young, low educated parents aged 36-40 gave such answer. Since the number of parents with children mining fluorspar is small, it is difficult to make a conclusion about them.

It is obvious that none of parents wish their children to engage in hard, highly risky work. However, results of the survey clearly demonstrate that low level of livelihood is the main reason for most children to engage in gold/fluorspar mining. That is why we face a question what living conditions should be provided in order to withdraw children from this hard labor. Let us see what parents thought on this issue, by the mining type.

Box 5.2

In general, more children started working during their vacation in the last 2 years. Although absenteeism is widespread, parents are interested to send their children to school. However, some parents take their children from school to work with them for a whole month. Children of parents, who are in difficult situation, are given leave from school. In general, parents influence in great measure children's decision to work, they exert a pressure on their children.

(D.A, 45 years old, female, Informal education methodologist Bayankhongor,BayanOvoo)

Table 5.10 **Percentage distribution of parents by evaluation of health risk of children engaged in mining and mining type, according to selected characteristics**

Selected characteristics	**Evaluation of health risk of parents**								**Total**
	Gold				Fluorspar				
	Not risk	Low	Mode-rate	High	Not risk	Low	Mode-rate	High	
Sex									
Male	5.1	5.1	25.6	64.1	10.0	0.0	20.0	70.0	**100.0**
Female	4.8	3.6	26.5	65.1	0.0	4.5	18.2	77.3	**100.0**
Age									
Less than 35	0.0	8.0	24.0	68.0	0.0	0.0	11.1	88.9	**100.0**
36-40	11.4	2.9	20.0	65.7	0.0	0.0	28.6	71.4	**100.0**
41-45	0.0	3.1	37.5	59.4	12.5	12.5	25.0	50.0	**100.0**
46 and over	6.7	3.3	23.3	66.7	0.0	0.0	12.5	87.5	**100.0**
Education level									
Uneducated/Can raed and write	0.0	0.0	60.0	40.0	0.0	0.0	0.0	0.0	**100.0**
Primary	16.7	0.0	25.0	58.3	50.0	0.0	0.0	50.0	**100.0**
Uncompleted secondary	0.0	6.1	28.6	65.3	0.0	6.3	18.8	75.0	**100.0**
Secondary	9.5	2.4	23.8	64.3	0.0	0.0	27.3	72.7	**100.0**
Higher than secondary	0.0	7.1	14.3	78.6	0.0	0.0	0.0	100.0	**100.0**
All	**4.9**	**4.1**	**26.2**	**64.8**	**3.1**	**3.1**	**18.8**	**75.0**	**100.0**

Box 5.3

Children started working a lot in the last few years. Previously, mostly adults were engaged in fluorspar mining. Nowadays, parents make their children work under excuse that they need help. Fluorspar mining requires a lot of workers and children work the same as adults. Unfortunately, lately children themselves organize groups and work on their own without adults.

(Ts.Ch, 41 years old, male, engaged in informal fluorspar, Dundgob, Delgerkhangai).

Parents of children who are engaged in gold mining think that children will stop working if following conditions are in place:

- Families have sufficient income (80.3 percent)
- Families have sufficient money for children's education (43.4 percent)
- Families have enough livestock/land (34.4 percent)
- Families have enough money for health care (16.4 percent)
- The school is close to the home and work (9.0 percent)
- Quality of schooling is better (8.2 percent)
- Of children's own volition to quit mining (23.8 percent)

As for parents of children mining fluorspar:

- Families have sufficient income (81.3 percent)
- Families have sufficient money for children's education (25 percent)
- Families have enough livestock/land (15.6 percent)
- Families have enough money for health care (12.5 percent)
- Quality of schooling is better (9.4 percent)
- Of children's own volition to quit fluorspar mining (12.5 percent)

As parents reported, of children mining gold 59.0 percent receive formal schooling and 2.5 percent participate in informal training, the remaining 38.5 percent do not study at school. Of children mining fluorspar 71.9 percent are receive formal schooling and 6.2 percent participate in informal training, the remaining 21.9 percent do not study at school.

It can be seen that the level of school enrollment is relatively higher in areas of gold mining compared to places of fluorspar mining.

Another issue to notice is that 92.9 percent of total parents answered that they would withdraw children from their present work if they express a wish to continue studying at school or to enroll at school. When asked what kind of education they want for their children, 91.5 percent of survey respondents answered “higher than complete secondary education”. Of 2 persons who view education as unnecessary, we asked what kind of courses they want their children to study and both of them replied “driving courses”.

CHAPTER 6. EMPLOYERS OF CHILDREN ENGAGED IN INFORMAL GOLD/FLUORSPAR MINING

This chapter will examine the profile of employers covered by the survey, their attitudes towards child labor and their evaluation of child labor. In our survey, persons aged 18 or over, who employ children younger than 18 years old under their direct supervision in informal gold/ fluorspar mining on the basis of labor contracts or without them or persons, who participate in management and organization of work of children younger than 18 and play the main role in making decisions related to work, are defined as "employers".

6.1 Profile of employers

In total 44 persons employing children were covered by the survey, of them 34 were engaged in informal gold mining, 10 were engaged in fluorspar mining. Since children engaged in informal gold/fluorspar mining mostly work independently, without employers, or work with their family members and this trend is widespread, the number of employers covered by the survey is small.

Of employers who hired children to work in gold mining 17 were from Tuv aimag, 7- from Uvurkhangai aimag, 6- from Dundgovi aimag, 3- form Bayankhongor, 1-from Umnugovi aimag. As for fluorspar miners there were 6 employers from Dundgovi aimag and 4 from Dornogovi aimag.

If land ownership of those persons employing children is examined, 55.8 percent (19 persons) of gold miners work in previously exploited areas, 32.4 percent (14 persons) work on the land without any ownership or license, 11.8 percent or 4 persons work on a company land. Of fluorspar miners 80 percent or 8 persons work on the company's land, 20 percent (2 persons) work on unlicensed land/plot.

Employers covered by the survey are shown in Table 6.1 by their profile. The mean age of employers mining gold is 34.9, 50 percent are aged fewer than 35.5, the rest are aged over 35.5 (median age). Of fluorspar miners 50 percent are aged less than 33.5 years old, the rest is older than that and in average they are aged 35.3. This shows that employers are relatively young people.

As for sex of employers 76.5 percent of those in gold mining (26 persons), and 80 percent of those in fluorspar mining (8 persons) are men, the rest are women. By nationality, all employers are of khalkha ethnicity.

If employers are examined by duration of their work in gold/fluorspar mining, 58.8 percent of gold miners have been engaged in this work for 2 or fewer years, 41.2 percent- for 3 or over years. In other words, employing children is relatively less practiced among experienced persons, who have worked longer in this field. Among fluorspar miners no substantial differences were observed with regard to duration of their work in this field (50 percent of them have been engaged in this work for 2 or less years, the other half - for over 2 years). The mean duration of work in this field is 2.8 years for gold miners, 3.5 years – for fluorspar miners.

Table 6.1 **Percentage distribution of employers covered by the survey by selected characteristics, according to mining type**

Selected characteristics	Mining type	
	Gold	Fluorspar
Age group		
Less than 25 years old	23.5 (8)	10.0 (1)
25-29	11.8 (4)	20.0 (2)
30-34	11.8 (4)	20.0 (2)
35-39	8.8 (3)	20.0 (2)
40-44	32.3 (11)	-
45 or older	11.8 (4)	30.0 (3)
Mean age	*34.9*	*35.3*
Median age	*35.5*	*33.5*
Sex		
Male	76.5 (26)	80.0 (8)
Female	23.5 (8)	20.0 (2)
Ethnic group		
Khalkh	100.0 (34)	100.0 (10)
Duration of working as informal miner (years)		
1 year or fewer	***29.4 (10)***	20.0 (2)
2 years	***29.4 (10)***	30.0 (3)
3-4 years	***20.6 (7)***	20.0 (2)
5 or over	20.6 (7)	30.0 (3)
Mean of working years	*2.8*	*3.5*
Mean number of people working with employer	4.8	11.1
Mean number of male people	3.2	7.1
Mean number of female people	1.6	4.0
Mean number of unpaid family members working with employer	2.3	1.6
Mean number of male members	1.4	1.1
Mean number of female members	0.9	0.5
Mean number of children aged 5-17	0.7	0.3
Participation of the children aged 5-14 or 15-17		
Eemploying children aged 5-14 only	17.6 (6)	10.0 (1)
Eemploying children aged 15-17 only	70.6 (24)	30.0 (3)
Employing children of both age group	11.8 (4)	60.0 (6)
Number of children aged 5-14 working for employer		
Doesn't employ children aged 5-14	70.6 (24)	30.0 (3)
1 child	14.7 (5)	20.0 (2)
2 children	14.7 (5)	40.0 (4)
6 children	-	10.0 (1)
Mean number of child workers aged 5-14:	*0.4*	*1.6*
Mean number of male child workers	*0.2*	*1.5*
Mean number of female child workers	*0.2*	*0.1*
Number of children aged 15-17 working for employer		
Doesn't employ children aged 15-17	17.6 (6)	10.0 (1)
1 child	67.7 (23)	50.0 (5)
2 children	11.8 (4)	20.0 (2)
6 children	2.9 (1)	-
4 children	-	10.0 (1)
7 children	-	10.0 (1)
Mean number of child workers aged 15-17:	*1.0*	*2.0*
Mean number of male child workers	*0.7*	*1.9*
Mean number of female child workers	*0.3*	*0.1*
	100.0	**100.0**
Total		
Number of employers covered by the survey	**34**	**10**

While one employer in gold mining works together with in average 3.2 men, 1.6 women, in total 4.8 persons, a fluorspar miner works with in average 11.1 persons (7.1 men and 4 women). It shows that fluorspar miners work with relatively larger number of people to accomplish their work. Moreover, men are more likely working at informal mining sector than women.

If we look at the number of family members, who work together with employers without payment, in average 2.3 persons in gold mining and in average 1.6 persons in fluorspar mining work for employers from their families. Of these family members 0.7 (gold miners) and 0.3 (fluorspar miners) are children aged 5-17.

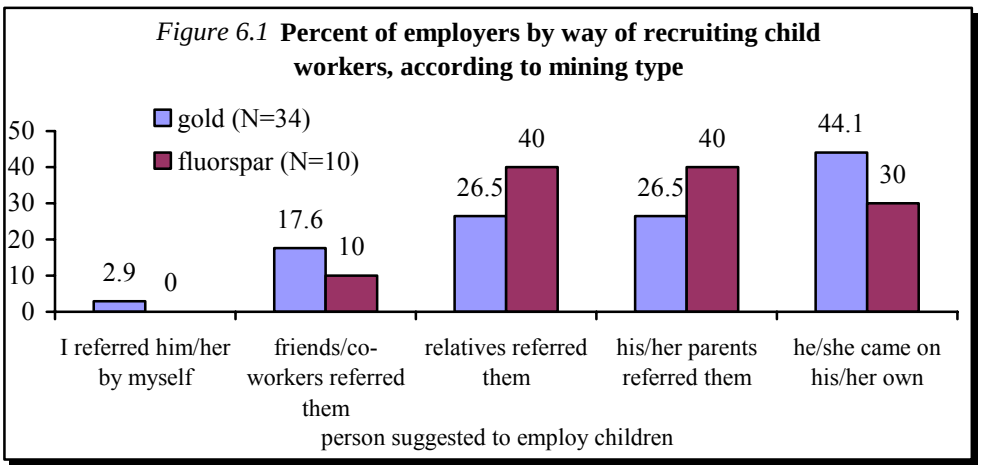
When participation of children of the above age is examined, 70.6 percent of gold miners employ only children aged 15-17 and 17.6 percent- only those aged 5-14. However, among the fluorspar miners the percentage of those who employ children of any age is relatively high or 60 percent (6 persons).

By the survey, an employer in gold mining employs in average 0.4 children aged 5-14 and 1 child aged 15-17. An employer in fluorspar mining employ in average 1.6 children aged 5-14 and 2 children aged 15-17. From these, we can conclude that among employers in fluorspar mining there is a trend to employ more children compared to those in gold mining; and gold and fluorspar miners both employ children aged 15-17 in greater measure.

When we clarified how employers hired children/who suggested them to employ children (Figure 6.1), the answer "the child him/herself made an offer" (44.1 percent) prevailed among gold miners. Other answer such as parents of children suggested him/her (26.5 percent), the child was with assistance of relatives (26.5 percent) were in the next place. Among fluorspar miners as well the trend of hiring children through mediation of children's parents or relatives is dominating.

From these, a conclusion can be made that although children are attracted to this kind of work out of their own interest, on the other hand the participation of adults, parents and other close people in their decision is considerable.

Figure 6.1 **Percent of employers by way of recruiting child workers, according to mining type**



Note: Total is more than 100 percent because of multiple responses

6.2 Attitudes of employers towards child employment and working conditions

6.2.1 Situation determining child employment

Among employers covered by the survey a trend to employ boys was more popular, but there were 13 employers who employed girls. Of them 8 employed boys as well as girls, but 5 employed only girls.

Kinds of work carried out by children in gold/fluorspar mining, by the sex of employed children are shown in Table 6.2.

Table 6.2. **Percent of employers by type of chores performed by child workers, according to mining type**

Kind of chores performed by child workers	Mining type	
	gold	fluorspar
Kind of chores performed by male children		
Digging a hole/soil	96.6 (28)	60.0 (6)
Fetching water/soil	93.1 (27)	90.0 (9)
Sifting soil	72.4 (21)	30.0 (3)
Transporting ore/stone	20.7 (6)	60.0 (6)
Crushing and milling ore/stone/fluorspar	6.9 (2)	60.0 (6)
Panning gold	89.7 (26)	-
Cubing fluorspar	-	30.0 (3)
Working on compressor/knotted rope for simple hauling	13.8 (4)	-
Shlutting	34.5 (10)	-
Number of employers, who are employing male children	**29**	**10**
Kind of chores performed by female children		
Digging a hole/soil	50.0 (6)	(1)
Fetching water/soil	83.3 (10)	(1)
Sifting soil	50.0 (6)	-
Transporting ore/stone	16.7 (2)	-
Panning gold	75.0 (9)	-
Shlutting	8.3 (1)	-
Number of employers, who are employing female children	**12**	**1**

Note: Number of employers is more than 44 because some of them are employing both of male and female children

If the kinds of work implemented by children in gold mining are ranked by the percentage, for boys such works as digging holes/soil, carrying water/soil, panning gold, sifting soil are prevailing (72.4-96.6 percent). As for girls, they are engaged in such works as carrying water/soil, panning gold, sifting soil, digging holes/soil (50-83.3 percent). In general, kinds of work carried out by boys and girls are the same, by the percentage of their participation is slightly different, in other words, such works are mostly carried out by boys. Employers in fluorspar mining engage boys widely in all kinds of work and most of all in carrying water/soil (90 percent).

We asked if employers engage children in other additional kinds of work besides the above mentioned basic kinds of work and the results are shown in Table 6.3 by children's age and sex.

A trend to engage children of young age or those aged 5-14 in such double unpaid work as cooking, doing laundry, cleaning house, carrying water/firewood, doing small errands is less compared to children aged 15-17, and such work is mostly carried out by girls. For instance, while 40.6-43.8 percent of employers employing boys aged 15-17 engage boys of this age in doing laundry and cooking, 75 percent of employers employing girls of this age engage girls in the above works.

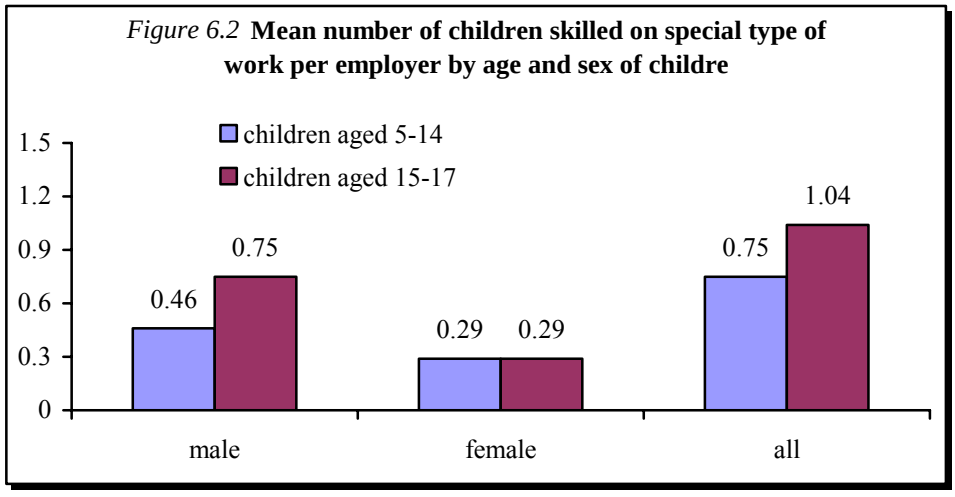
Table 6.3. **Percent of the employers by type of additional tasks performed by child workers, according to the sex and age group of employing child**

Type of additional tasks performed by child workers	**Sex of employing child**		
	male	female	**All**
Type of additional tasks performed by child aged 5-14			
Cooking	42.9 (6)	62.5 (5)	**47.1 (8)**
Doing laundry	28.6 (4)	75.0 (6)	**52.9 (9)**
House cleaning	35.7 (5)	75.0 (6)	**52.9 (9)**
Carry water/fire wood	71.4 (10)	75.0 (6)	**76.5 (13)**
Running errands	-	12.5 (1)	**5.9 (1)**
Number of employers, who are employing 5-14 aged children	**14**	**8**	**17**
Type of additional tasks performed by child aged 15-17			
Cooking	43.8 (14)	75.0 (6)	**54.1 (20)**
Doing laundry	40.6 (13)	75.0 (6)	**51.4 (19)**
House cleaning	46.9 (15)	75.0 (6)	**59.5 (22)**
Carry water/fire wood	81.3 (26)	62.5 (5)	**81.1 (30)**
Running errands	3.1 (1)	-	**2.7 (1)**
Number of employers, who are employing 15-17 aged children	**32**	**8**	**37**

Note: Number of employers is more than 44 because some of them are employing both of male and female children, and children aged 5-14 and 15-17

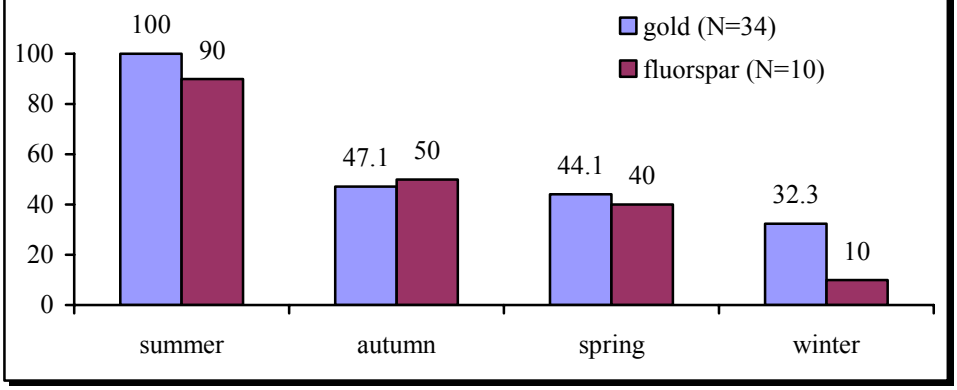
According to the survey, employers in gold mining view that 12 children aged 5-14 and 17 children aged 15-17; employers in fluorspar mining view that in total 6 children aged 5-14 and 8 children aged 8-17 acquired working skills related to their employment in gold/fluorspar mining. When these children who acquired work skills are examined by their age and sex, the mean number of children who acquired such skills per employer is high among boys and children older than 15 (see Figure 6.2).

Figure 6.2 **Mean number of children skilled on special type of work per employer by age and sex of childre**



When we look at the seasons when employers employ children (Figure 6.3), both gold and fluorspar miners employ the largest number of children in summer. However, there was employer who reported hiring children in winter (32.3 percent of gold miners-11 persons, of fluorspar miners- 1 person).

Figure 6.3 **Percent of the employers by season of employing child workers, according to mining type**



Note: Total is more than 100 percent because of multiple responses

Table 6.4 shows information about working hours and daily load of children reported by employers covered by the survey. Employers in gold mining employ children for in average 7 days a week, while fluorspar miners employ those 6.4 days.

Half of the gold miners reported that children work for less than 10 hours a day, the remaining half, for over 10 hours. For fluorspar miners, the median of children's working hours a day was 7.5 hours. Also, the mean working hours of children per day is by 1.8 hours longer among gold miners (9 hours) compared to fluorspar miners. These results reported by employers violate articles of the Labor law of Mongolia which states that "an underage worker must not be allowed to work at night hours or overtime, and he/she must not be engaged in work during public holidays or at weekends", "the working hours per week can be up to 30 hours for workers aged 14-15 and up to 36 hours for those aged 16-17".

Among total employers covered by the survey those who employ more than one child account for 47.7 percent (21 persons). Of employers who employ more than one child 52.4 percent claim that working hours per day differ among children.

When we asked if children are given a break during the working day, 14.7 percent or 5 persons among gold miners reported not giving such a break. Among fluorspar miners there were no such cases. If the employer does not allow the employees to have a break during work, it is again a violation of the article in the Labor law of Mongolia which states that "employees should be given a break for their rest and meals". Duration of a break for children is in average 50.1 minutes among gold miners and in average 91 minutes among fluorspar miners. As in general duration of the break for children mining gold is relatively shorter than that for children mining fluorspar which can be explained by a fact that fewer children per employer work in gold mining, and a workload per 1 person is greater.

Table 6.4 **Percentage distribution of employers by report on division of working hours/days of children, according to mining type**

Employer's report on division of children's working hours/days	Mining type	
	Gold	Fluorspar
Working days of child worker a week		
4-6 days	23.5 (8)	30.0 (3)
7 days	76.5 (26)	70.0 (7)
Mean of working days a week	*7*	*6.4*
Working hours of child worker a day		
6 or shorter	17.6 (6)	40.0 (4)
7-8 hours	23.5 (8)	30.0 (3)
9-10 hours	38.2 (13)	30.0 (3)
11 or longer	20.7 (7)	-
Mean of working hours a day	*9*	*7.2*
Median of working hours a day	*10*	*7.5*
Break hours during the work in a day		
5-30 minutes	35.3 (12)	20.0 (2)
31-80 minutes	35.3 (12)	30.0 (3)
81or longer minutes	14.7 (5)	50.0 (5)
Do not give break	14.7 (5)	-
Mean length of break	*50.1 minutes*	*91 minutes*
Median length of break	*35 minutes*	*100 minutes*
Total	**100.0**	**100.0**
Number of employers covered by the survey	**34**	**10**

6.2.2 Valuation of child labor

Table 6.5 shows in what form employers pay children their wages, by the profile of employer.

Of total employers 27.3 percent reported not paying any wages for child work, 36.4 percent pay them in cash, 9.1 percent pay them only in non-cash form, the remaining 27.3 percent pay children in cash and non-cash form. If this situation is examined by the kind of employers' mineral mined, among fluorspar miners there are no employers who do not pay children or pay in a non-cash form. Among gold miners, employers who do not pay any wages to children account for 35.3 percent which is higher than the percentage of employers paying children in some form. The percentage of employers who pay children in cash among fluorspar miners (60 percent) is twice higher than that among miners. If the number of employed children is looked at, among employers employing more than one child the percentage of those who pay children their wages in some form is higher than that of employers who employ one child. It might be an indicator proving a fact that employers who employ 1 child mostly employ a family member or a child of a close relative.

If we look at this issue from the position of the age of employed children, among employers who employ children aged 5-14 there were no one who paid them in cash. On the contrary, the percentage of employers who paid wages in a non-cash form is the highest (28.6 percent) among those who employ children aged 5-14.

Table 6.5. **Percentage distribution of employers by kind of payment to child, according to the selected characteristics**

Selected characteristics	Kind of payment to child				Total	Number of employers covered by the survey
	In cash and non-cash	In cash	Non-cash	Nothing		
Mining type						
Gold	23.5 (8)	29.4 (10)	11.8 (4)	35.3 (12)	**100.0**	**34**
Flourspur	40.0 (4)	60.0 (6)	-	-	**100.0**	**10**
Number of employing child workers						
1	21.7 (5)	26.1 (6)	8.7 (2)	43.5 (10)	**100.0**	**23**
2 or more	33.4 (7)	47.6 (10)	9.5 (2)	9.5 (2)	**100.0**	**21**
Whether employing how many years old children						
Employing only 5-14 aged children	57.1 (4)	-	28.6 (2)	14.3 (1)	**100.0**	**7**
Employing only 15-17 aged children	18.5 (5)	40.7 (11)	3.7 (1)	37.0 (10)	**100.0**	**27**
Employing 5-14 and 15-17 aged children	30.0 (3)	50.0 (5)	10.0 (1)	10.0 (1)	**100.0**	**10**
Age group of employer						
Younger than 35	19.0 (4)	47.6 (10)	9.5 (2)	23.8 (5)	**100.0**	**21**
35 or older	34.8 (8)	26.1 (6)	8.7 (2)	30.4 (7)	**100.0**	**23**
Sex of employer						
Male	32.4 (11)	38.2 (13)	5.9 (2)	23.5 (8)	**100.0**	**34**
Female	10.0 (1)	30.0 (3)	20.0 (2)	40.0 (4)	**100.0**	**10**
All	**27.3 (12)**	**36.4 (16)**	**9.1 (4)**	**27.3 (12)**	**100.0**	**44**

The percentage of employers who do not pay any wages (23.8 percent) is lower among employers aged less than 35 compared to those aged over 35, but the percentage of those who pay in cash (47.6 percent) is 1.8 times greater among employers aged less than 35. As for sex of employers, the percentage of those who pay wages in cash and non-cash forms is higher among men compared to women employers. In general, among young male employers employing children without paying them wages is less observed.

We asked employers who pay wages in cash about the amount of average monthly wages of children. Boys aged 5-14 mining gold are paid in average 20.500 MNT, girls aged 5-14 are 19.000 MNT, boys aged 15-17 are paid in average 75.923 MNT, girls aged 15-17 are 14.250 MNT.

Employers in fluorspar mining pay boys aged 5-14 in average 36.337 MNT a month, girls aged 5-14- 10.000 MNT, boys aged 15-17- 78.125 MNT, girls aged 15-17- 10.000 MNT. It demonstrates that employers view labors of children engaged in informal gold/fluorspar mining relatively differently and boys' labor is evaluated more than girls. Among gold miners the lowest amount of wages paid to children is 3.000 MNT, the highest – 300.000 MNT, while among fluorspar miners the lowest amount of wages paid to children is 10.000 MNT, the highest – 200.000 MNT.

As for wages paid in non-cash form, 94 percent of gold miners give children food stuff, 35.3 percent buys them clothes and 17.6 percent give school supplies (in multiple answers). Of fluorspar miners 40 percent (4 persons) give children food stuff, 30.0 percent (3 persons) buy clothes and 10 percent (1 person) give them school supplies.

6.2.3 Attitudes towards working conditions and social security of children

We included questions about attitudes of employers covered by the survey towards some social issues and inquired about working conditions provided to children by employers. The results are shown in Table 6.6.

Of total employers in gold mining 85.3 percent do not have any contract/agreement with a child he/she employs, the rest have an oral agreement. Among employers in fluorspar mining the number of those who did not have any contract/ agreement is a little less (40 percent or 4 persons), but there are few cases when a written contract agreement was made. This trend is almost the same with regard to the age of employers. If any kind of disagreement or a problem occurs in child- employer relations, for instance if the child's rights are violated, possibilities for addressing legal institutions are limited, so it can be concluded that the child works in risky conditions.

If we look at provision of necessary protective clothing and equipment for employed children, 1 employer each from those in gold and fluorspar mining view that it is unnecessary. Of gold miners 52.9 percent, of fluorspar miners 40 percent reported not providing children with working clothes or protective devices. By the age of respondents, the percentage of those who provide children with working clothes and protective devices among employers aged 35 or over is slightly larger compared to that of employers aged up to 35 years old.

Table 6.6 **Percentage distribution of employers by work conditions provided by employers, according to mining type and the age group of employers**

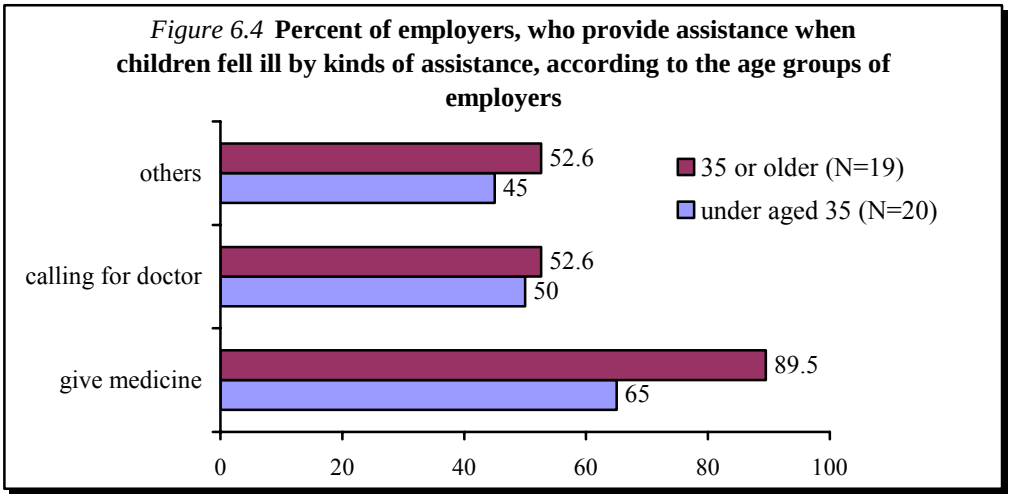
Work conditions provided by employers	**Gold mining**			**Fluorspar mining**		
	Age group		**All**	**Age group**		**All**
	Under aged 35	35 or older		Under aged 35	35 or older	
Whether made verbal or written agreement with child workers						
Didn't make any agreement	87.5 (14)	83.3 (15)	**85.3 (29)**	40.0 (2)	40.0 (2)	**40.0 (4)**
Made written agreement only	-	-	**-**	-	20.0 (1)	**10.0 (1)**
Made verbal agreement only	12.5 (2)	16.7 (3)	**14.7 (5)**	60.0 (3)	40.0 (2)	**50.0 (5)**
Whether provide labor protection clothes and equipments to the workers						
Yes	31.3 (5)	55.6 (10)	**44.1 (15)**	40.0 (2)	60.0 (3)	**50.0 (5)**
No	68.8 (11)	38.9 (7)	**52.9 (18)**	40.0 (2)	40.0 (2)	**40.0 (4)**
I think it is not required	-	5.6 (1)	**2.9 (1)**	20.0 (1)	-	**10.0 (1)**
Whether give the child time off to go to school						
Yes	31.3 (5)	72.2 (13)	**52.9 (18)**	100.0 (5)	80.0 (4)	**90.0 (9)**
No	31.3 (5)	5.6 (1)	**17.6 (6)**	-	-	**-**
Child is not going to school	37.4 (6)	22.2 (4)	**29.4 (10)**	-	20.0 (1)	**10.0 (1)**
Whether provide any help when child worker is sick						
Yes	93.7 (15)	88.8 (16)	**91.2 (31)**	100.0 (5)	60.0 (3)	**80.0 (8)**
No	-	5.6 (1)	**2.9 (1)**	-	-	**-**
Child never been sick	6.3 (1)	5.6 (1)	**5.9 (2)**	-	40.0 (2)	**20.0 (2)**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number of employers covered by the survey	**16**	**18**	**34**	**5**	**5**	**10**

Of those employers who provide children with working clothes and protective devices 80 percent provide them with clothes, 75 percent-with boots, 55 percent- with respiratory/face mask, 50 percent- with hats, 20 percent- with gloves. These are all kinds of clothes and protective devices that are given to children.

When we examined if employers provide children engaged in informal gold/fluorspar mining with opportunity to attend school, of fluorspar miners 90 percent (9 persons) reported providing such an opportunity. Of employers in gold mining 52.9 percent provide them with such an opportunity, 17.6 percent do not provide such an opportunity, the rest answered that this is unnecessary since children do not study at school.

When we clarified if employers provided some kind of assistance when children fell ill, of gold miners 91.2 percent, of fluorspar miners 80 percent (8 persons) reported providing certain assistance. The majority of employers reported that calling for doctors or giving children medicines when child workers fell ill. Some employers also provide sick children with such other forms of assistance as giving them a leave from work, giving food and caring for them (Figure 6.4)

Figure 6.4 **Percent of employers, who provide assistance when children fell ill by kinds of assistance, according to the age groups of employers**



6.3 Views and knowledge of employers on child labor

Views of employers on whether children can face any kind of difficulties and problems related to working conditions or health issues are shown in Table 6.7.

Table 6.7 **Percent of employers by opinions on difficult working conditions and health risks which might be faced by child due to work, according to mining type**

Employer's opinion on difficult working conditions and health risk	**Mining type**	
	Gold	Fluorspar
Opinion on difficult working conditions which face by child workers		
None	17.6 (6)	50.0 (5)
Don't know	5.9 (2)	-
Inadequate light	20.6 (7)	-
Dusty	61.8 (21)	30.0 (3)
Unfavorable weather conditions (Sun and heat etc.)	55.9 (19)	40.0 (4)
Noisy	23.5 (8)	-
Carrying heavy loads	70.6 (24)	40.0 (4)
Others	2.9 (1)	20.0 (2)
Opinion on health risks which might be faced by child workers due to work		
None	8.8 (3)	10.0 (1)
Don't know	5.9 (2)	20.0 (2)
Back pain	70.6 (24)	50.0 (5)
Respiratory illness	50.0 (17)	30.0 (3)
Deafness	5.9 (2)	-
Burns	2.9 (1)	-
Cuts	17.6 (6)	20.0 (2)
Getting injured	5.9 (2)	-
Kidney and urinary tract diseases	11.8 (4)	10.0 (1)
Get allergy	2.9 (1)	10.0 (1)
Number of employers	**34**	**10**

Note: Total is more than 100 percent because of multiple responses

As the table shows, of employers in gold mining 17.6 percent (6 persons), of employers in fluorspar mining 50 percent (5 persons) view that children do not face any problems related to working conditions when they are engaged in such kind of work. Employers view that common possible problems for children are carrying heavy loads, working in dusty dirty conditions, working in unfavorable weather conditions.

Of employers in gold mining 8.8 percent (3 persons), of employers in fluorspar mining 10 percent (1 person) view that work in gold/fluorspar mining does not have any harmful consequences for health. It shows the majority of employers views that such kind of work is risky to the health of children. By the employers' views, most common possible ailments for the children are backache, respiratory diseases, kidney and urinary tract diseases, getting injured/cut etc.

Figure 6.5 and Figure 6.6 show how employers evaluate advantages and disadvantages of employing children under 18 in this kind of work.

Figure 6.5 **Percent of employers by view on disadvantages of employing children, according to mining type**

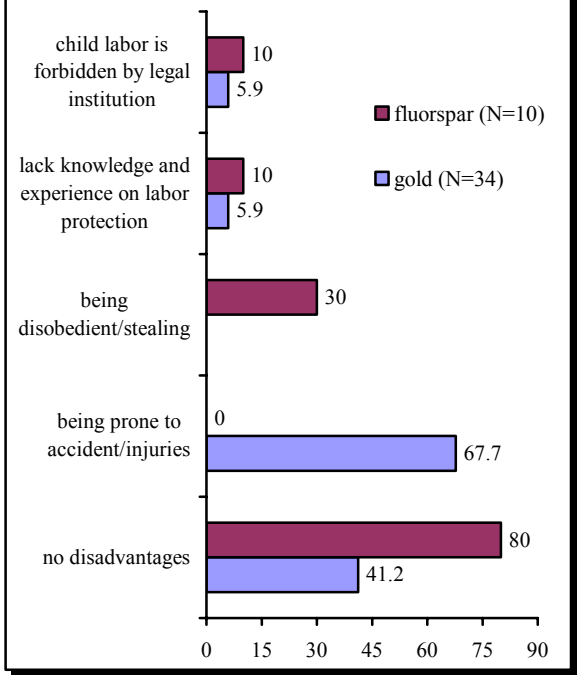
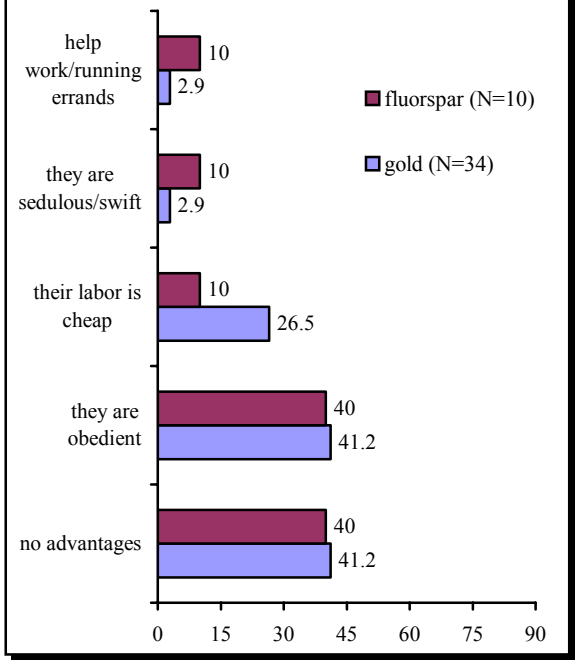


Figure 6.6 **Percent of employers by view on advantages of employing children, according to mining type**



Of employers in gold mining 41.2 percent, of employers in fluorspar mining 80 percent do not see any disadvantages in employing children in such kind of work. The rest of employers mostly stated disadvantages related to the personality of children, such as children being prone to accidents and injuries, being disobedient/stealing etc. Besides these disadvantages, employers also mentioned that children lack knowledge and experience on labor protection; child employment is forbidden by legal institutions. It shows that some adult employers know about laws and regulations related to child labor, but do not follow them.

If we look at how employers evaluate advantages of employing children in gold/fluorspar mining, of gold miners 41.2 percent, of fluorspar miners 40 percent reported lack of advantages. The main advantage of employing children as stated by employers is that they are obedient; and they can be employed for small cost /their labor is cheap/.

One issue which can play an important role in reducing child labor is knowledge about the legal age of entering labor relations by children among adults and employers, their ability to comply with the law. That is why we included the question “In your opinion, what is the legal age for children to start working?” in order to evaluate knowledge of employers covered by the survey about legal age of children to enter labor relations.

According to the Labor law of Mongolia, a child can make a labor contract, i.e. start working from the age of 16. In evaluating knowledge of employers on this issue we considered answers saying “16” as correct and other answers as incorrect.

Table 6.8. Percentage distribution of employers by awareness of the legal age of children to start working, according to selected characteristics

Selected characteristics of employers	**Awareness of the legal age of children to start employment**		**Total**	**Number of employers covered by the survey**
	Correct	Incorrect		
Mining type				
Gold	32.4 (11)	67.6 (23)	**100.0**	**34**
Fluorspar	40.0 (4)	60.0 (6)	**100.0**	**10**
Age group of the employer				
Younger than 35	28.6 (6)	71.4 (15)	**100.0**	**21**
35 or older	39.1 (9)	60.9 (14)	**100.0**	**23**
Sex of employer				
Male	35.3 (12)	64.7 (22)	**100.0**	**34**
Female	30.0 (3)	70.0 (7)	**100.0**	**10**
Length of working years in informal mining sector				
2 or shorter	32.0 (8)	68.0 (17)	**100.0**	**25**
3 or longer	36.8 (7)	63.2 (12)	**100.0**	**19**
All	**34.1 (15)**	**65.9 (29)**	**100.0**	**44**

Of total employers 1/3 determined the minimum age approved by the law for a child to enter labor relations correctly, i.e. as 16 (Table 6.8). The percentage of employers with correct knowledge is by 7.6 points lower among gold miners (32.4 percent) compared to fluorspar miners, that among employers aged under 35 (28.6 percent) is 10.5 points lower than that among employers aged 35 or over, among women (30 percent) it is 5.3 points lower compared to that of men, among employers working in this field for less than 2 years (32 percent) it is by 4.8 points lower than that among employers working for 3 or over years.

Apart from the above mentioned, gold/fluorspar mining is included in the list of work places which are forbidden for employment of underage children, approved by the ILO and the Government of Mongolia. Therefore, we asked the employers "Do you know that employing children under age of 18 in mining is illegal?" and collected the data. The results show that 68.2 percent of total employers know that it is illegal to employ children under age of 18 in mining.

CHAPTER 7. ADULTS ENGAGED IN INFORMAL GOLD/FLUORSPAR MINING

This chapter presents a demographic and a social and economic profile of adult population engaged in informal gold/fluorspar mining, living and working conditions, work organization, labor safety, hygiene, and views of adults on employment of children in this field.

7.1 Profile of adults

In total 37906 adult population engaged in informal gold/fluorspar mining were covered by the survey, of which 89.6 percent or 33960 persons are engaged in gold mining, the remaining 10.4 percent or 3946 persons work in fluorspar mining. The demographic and social and economic profile of this population is shown in detail in Table 7.1.

Table 7.1 **Percentage distribution of the adult miners, according to selected background characteristics by mining type**

Selected characteristics	Mining type	
	Gold	**Fluorspar**
Age group		
Under 25	**28.5**	**8.3**
25-29	**18.9**	**32.1**
30-34	**21.6**	**12.1**
35-39	**9.4**	**15.4**
40-44	**8.7**	**15.2**
45 and over	**12.9**	**16.9**
Mean age	**31.3**	**35.0**
Sex		
Male	**68.3**	**55.0**
Female	**31.7**	**45.0**
Marital status		
Single	**34.4**	**24.7**
Married/Living together	**61.5**	**64.0**
Separated/Divorced/Widowed	**4.1**	**11.3**
Number of people living in the household (HH)		
1-3	**20.2**	**23.8**
4-6	**34.0**	**51.1**
7+	**45.8**	**25.1**
Average number of the people living in the HH	***4.7***	***4.2***
Average number of the family members in the HH	***3.3***	***2.5***
Educational level		
None/Primary	**16.5**	**14.4**
Incomplete secondary	**36.2**	**48.5**
Complete secondary	**38.8**	**33.1**
Higher than complete secondary	**8.5**	**4.0**
Total	100.0	100.0
Number	33960	3946

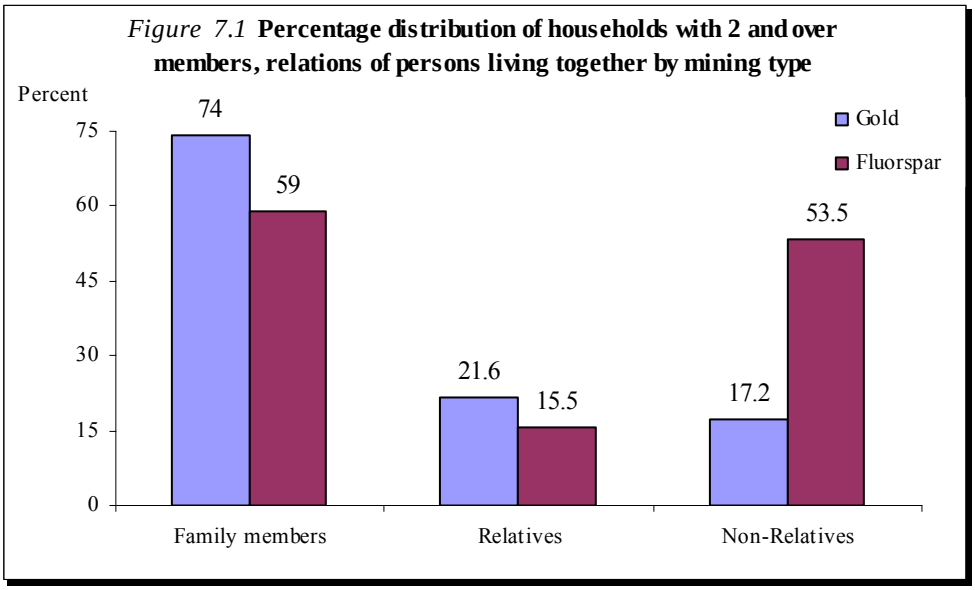
The average age is 31.3 among workers of gold mining and 35.0 among those who work in fluorspar mining. As for sex, the number of men working in informal gold mining is

twice greater than that of women. However, the number of women working in fluorspar is 10 points higher than that of men.

When the marital status of adults working in informal mining is examined by the kind of mining, 34.4 percent of gold miners and 24.7 percent of fluorspar miners are single young people, married and living together persons account for over 60 percent.

Workers in gold mining covered by the study live in households with an average number of 4.7 members, which is 0.5 points higher than that among fluorspar miners. The average number of household members among workers in gold mining is 3.3, which is again greater than the average number of household members (0.8) among fluorspar miners. Figure 7.1 shows that workers in gold/fluorspar mining mostly live only with their own family members.

Figure 7.1 **Percentage distribution of households with 2 and over members, relations of persons living together by mining type**



Note: **Answers are multiple**

As for the educational level of the survey participants, the majority of them have incomplete or complete secondary education. The percentage of low educated or non-educated adults is 16.5 in gold mining and 14.4 in fluorspar mining. The low educational level is the main condition for low individual capacity and it is a reflection of the high percentage of unqualified workforce in informal sector.

7.2 Informal gold/fluorspar mining and migration

Informal mining of minerals affects in certain measure the internal migration in our country. In defining the migrants in this survey we used criteria of the constant time period or 5 years.

Of adult miners 18.2 percent have lived up to 5 years in the soum, where they conduct mining activities, 56.9 percent have lived for 5 and over years, the remaining 24.9 are temporary residents.

Of migrants informally mining gold nearly half (48.7 percent) moved from other soums of their native aimag, over one fourth (25.4 percent) moved from Ulaanbaatar city. All migrants working in fluorspar mining moved from other aimags and the city (Ulaanbaatar, Orkhon, Gobisumber, Umnugobi). It shows that fluorspar miners come to

work from other aimags and the city in greater number, while population of the given aimag mostly works in gold mining. Of migrants only half (of gold miners 53.1 percent and of fluorspar miners 45.8 percent respectively) got a registration in the soum they work and live in. Registration at the basic administrative unit of the local area, where one lives, is one's civil duty. And lack of registration limits opportunities of citizen to access state and social services as well as access to information.

Depending on whether the informal gold/fluorspar miners move with their families or on their own, many social issues emerge in the given area.

Table 7.2 **Percent of the adult migrant miners, according to the migration characteristics and reasons by mining type**

Indicators	Mining type	
	Gold	Fluorspar
Migration characteristics		
Alone	10.7	27.0
Husband/wife	60.1	73.0
Children	62.5	18.8
Parents/other relatives	31.3	0.0
Non-relatives/friends	20.8	18.8
Reasons for migration		
To work/to do gold/fluorspar mining	89.0	81.2
To join relatives	17.9	18.8
To be close to the market	12.5	0.0
Bad ecological condition	3.1	0.0
Number	6490	415

Note: **Answers are multiple**

Table 7.2 shows in detail the profile of migrants and reasons for migration. By the profile of migrants, family migration dominates. Migrants engaged in informal gold mining mostly participate in migration with their own families, namely, the husband/wife and children. In fluorspar mining workers moved on their own or the couples moved together.

Migrants participated in migration in order to work, and mine gold/fluorspar. In other words, the main reason for migration is sustaining their livelihood by mining gold/fluorspar because of shortage of other workplaces. Furthermore, it can be concluded that opportunities for generating income for low educated persons are relatively higher in informal sector, so informal work in mining sector attracts more interest of migrants.
Half of adults informally working in gold mining have worked in the given place for over 2 years. As workers in gold mining work in average in the given place for 33.2 months or 2 years and 9 months, it is 13.7 months or 1 year and 1 month longer compared to those working in fluorspar mining (Table 7.3).

Table 7.3 **Percentage distribution of the adult miners, according to selected indicators by mining type and sex**

Selected indicators	Mining type					
	Gold			Fluorspar		
	Male	Female	All	Male	Female	All
Duration of working in gold/fluorspar mining at overall						
1-3 months	14.2	14.2	14.2	46.5	8.9	29.6
4-6 months	2.9	12.0	5.8	0.0	26.0	11.7
7-12 months	11.7	28.1	16.9	17.8	12.7	15.5
1-2 years	13.6	11.7	13.0	7.1	8.9	7.9
2 and more years	57.6	34.0	50.1	28.6	43.5	35.3
Average number of months working overall	*36.4*	*29.4*	*34.1*	*23.8*	*29.7*	*26.4*
Duration of working in gold/fluorspar mining at present place						
1-3 months	16.7	31.5	21.4	50.9	8.9	32.0
4-6 months	5.9	9.1	6.9	2.3	32.4	15.8
7-11 months	13.8	2.9	10.4	17.8	21.6	19.5
1-2 years	5.4	14.0	8.1	7.1	13.2	9.9
2 and more years	58.2	42.5	53.2	21.9	23.9	22.8
Average number of months working overall	*35.8*	*27.4*	*33.2*	*20.8*	*17.9*	*19.5*
Previous experience of working in gold/fluorspar mining						
Yes	33.9	20.8	29.7	31.7	13.2	23.4
No	66.1	79.2	70.3	68.3	86.8	76.6
Intend to move						
Yes	29.2	33.2	30.5	48.3	38.4	43.8
No	70.8	66.8	69.5	51.7	61.6	56.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number	**23202**	**10758**	**33960**	**2171**	**1775**	**3946**

Of gold miners 29.7 percent, of fluorspar miners 23.4 percent have previously worked in gold/fluorspar mining. As for sex, the percentage of men who have worked informally in this sector and acquired certain experience and practice is higher than that of women by 13.1 and 18.5 points respectively.

Future migration

Of informal gold miners 30.5 percent, of fluorspar miners 43.8 percent wish to move to a place other than the present one. The percentage of men who working in fluorspar mining wishing to move is greater than that of women. It shows that men working in informal fluorspar mining participate in migration in greater number than women.

Table 7.4 illustrates that the time for the planned move significantly differs among those who work in gold mining compared to those working in fluorspar mining. To clarify, while 43.9 percent of informal gold miners were not able to define when they planned to move, nearly half of (49.7 percent) workers in fluorspar mining planned to move after working 1-3 months. It might be related to a fact that among workers in informal gold mining migration to places with better output increases, when gold output in the present mine declines, workers in fluorspar mining have less work during cold seasons. The future migration is also quite different with regard to sex of informal fluorspar miners.

Table 7.4 **Percentage distribution of the adult migrants who intend to move, according to the expected period by mining type and sex**

Indicators	Mining type					
	Gold			Fluorspar		
	Male	Female	All	Male	Female	All
Expected period of moving						
Within 3 months	36.7	34.7	36.0	81.9	0.0	49.7
After period of more than 4 months	20.4	19.6	20.1	7.4	60.4	28.3
Not sure	42.9	45.7	43.9	10.7	39.6	22.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number	**6769**	**3574**	**10343**	**1049**	**681**	**1730**

The main reasons for the planned move among gold miners are: to move after the gold (52.4 percent), to improve their livelihood (25.8 percent), to be closer to their family and relatives (19.4 percent), while among fluorspar miners to improve their livelihood (34.7 percent), to be closer to their family and relatives (13.9 percent), to move after the fluorspar (13.0 percent), have the highest percentage (Figure 7.2).

Figure 7.2 **Percent of those who wish to move from present place of work by reason**

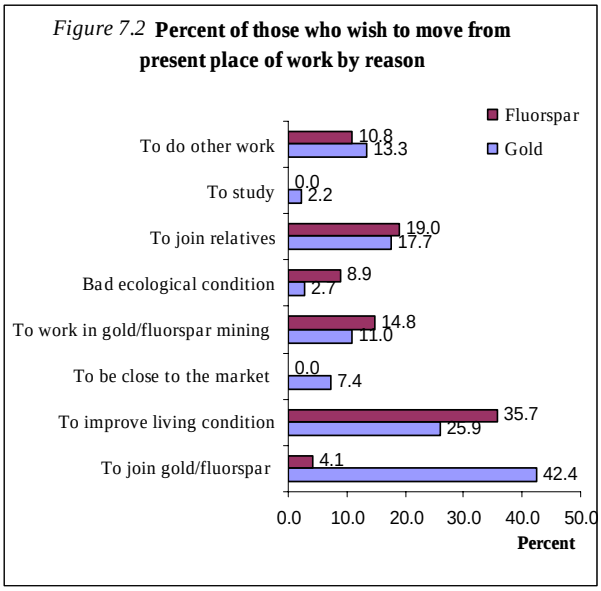
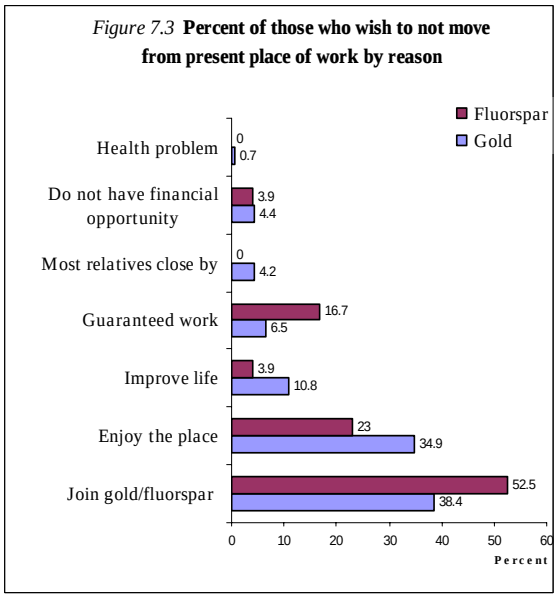


Figure 7.3 **Percent of those who wish to not move from present place of work by reason**



Note: **Answers are multiple**

As for migrants who do not plan to move in the future the main reasons for that were a wish "to be closer to the mining places", "as we got used to the area" (Figure 7.3). Among fluorspar miners the percentage of answers stating that they do not wish to move because they have reliable work and income is relatively higher compared to those working in gold mines.

7.3 Living environment of adults engaged in informal gold/fluorspar mining

The profile of households of informal gold/fluorspar miners is shown in table 7.5 by the kind of mineral mined.

Table 7.5 **Percentage distribution of the adult miners, according to the selected indicators by mining type**

Selected indicators	Mining type	
	Gold	Fluorspar
Living place of the HH		
Mining area	39.9	49.5
Soum center	43.1	25.5
Other aimag/city/soum	17.0	25.0
Distance of mining area to the HH		
Under 2 km	6.4	56.1
2-10 km	17.8	13.0
11-20 km	23.3	0.0
21 km and above	52.5	30.9
*Mean**	*47.1*	*11.8*
*Standard deviation**	*75.8*	*17.0*
Living place of respondents at present		
Mining area	49.0	75.8
Soum center	38.9	17.8
Other aimag/sity/soum	12.1	6.4
Main source of drinking water at working area		
Protected well**	12.3	10.7
Unprotected well	16.3	84.1
Spring/river/back water	71.4	5.2
Total	**100.0**	**100.0**
Number	**33960**	**3946**

Note: *The mean and standard deviation have been calculated ignoring the respondents having no positive entry in the field 'distance of mining area to the HH.
**Respondents who use central water system were included in this category.

The majority of households of gold miners reside in the vicinity of mines (39.9 percent) and in the center of the soum, where the mining place is located (43.1 percent). Half of households (49.5 percent) of fluorspar miners live in proximity of the mine. The average distance from the household to the mine is 47.1 km for those working in gold mines, and 11.8 km for those working in fluorspar mines. Of informal gold miners 49 percent and of fluorspar miners 75.8 percent reside in the proximity of the mine or in the place where they mine gold/ fluorspar.

Drinking water supply

Of those engaged in informal gold mining only 12.3 percent, of those working in fluorspar mines 10.8 percent reported using secure drinking water at their work place. Drinking water supply is more problematic among informal gold miners. While among workers in gold mines use of water from open water sources has the highest percentage (71.4 percent), among workers in fluorspar mines using water from unreliable wells for their consumption is widespread (84.1 percent).

Services in the proximity of mines

While 85 percent of gold miners replied that there are some kinds of services in the proximity of informal gold mines, 36.2 percent of informal workers in fluorspar mines gave such an answer (Figure 7.4).

Figure 7.4 **Percent age distribution of the adult miners according to the services in the vicinity of informal gold/fluorspar mines by mining type**

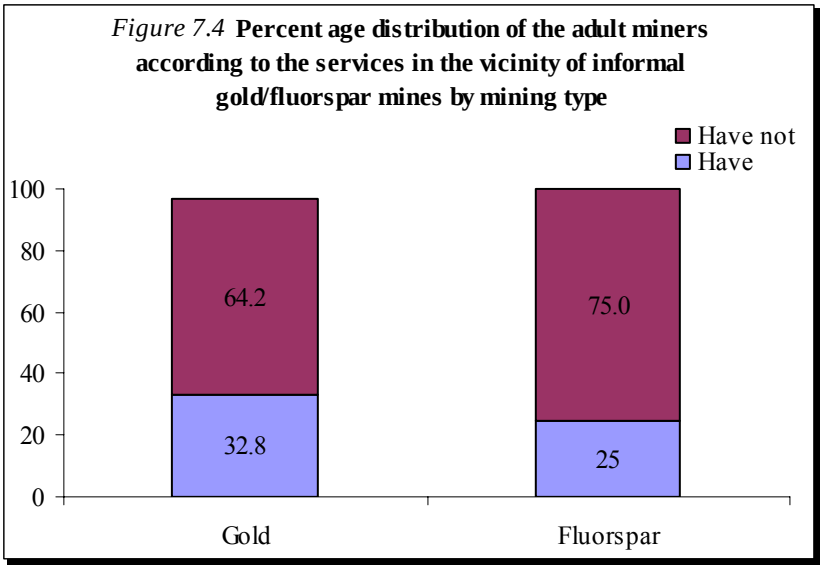


Table 7.6 shows in detail kinds of services provided in the proximity of mines.

Table 7.6 **Percent of adult miners, according to the kind of services provided in the mining area by mining type**

Kind of services	Mining type	
	Gold	Fluorspar
Ger shop	78.5	22.5
Personal services*	39.6	25.6
Transport services	62.4	0.0
Fuel supplies	30.0	0.0
Medical services	2.5	0.0
Repair/Equipment rental services	14.2	0.0
Don't have any services	15.0	63.8
Number	**33960**	**3946**

Note: **Answers are multiple**

* A hairdresser's, a cafй, canteen etc.

Compared to fluorspar mines, near informal gold mines workers can access such service as ger shops (78.5 percent), transport (62.4 percent) and small private services (39.6 percent). In some places even medical services are provided. It demonstrates that in the proximity of gold mines where population is concentrated, small private business of individuals sustaining their livelihood is also developing. Only 25.6 percent and 22.5 percent of workers in fluorspar mines reported ger shops and small private services near the mines respectively.

7.4 Work organization

Adults engaged in informal gold mining, have worked in this field in average for 34.1 months or 2 years 10 months, those engaged in fluorspar mining have worked in average for 26.4 months or 2 years 2 months (See Table 7.3).

Of those working in gold mines 27.8 percent (28.1 percent of men and 27.1 percent of women), of those working in fluorspar mines 16.0 percent (16.7 percent of men and 15.1 percent of women) reported engaging in other kinds of activities besides informal gold/fluorspar mining. Compared to workers in informal fluorspar mines, a greater number of those in gold mines engage in other activities besides gold mining and men more than women are employed in second work places.

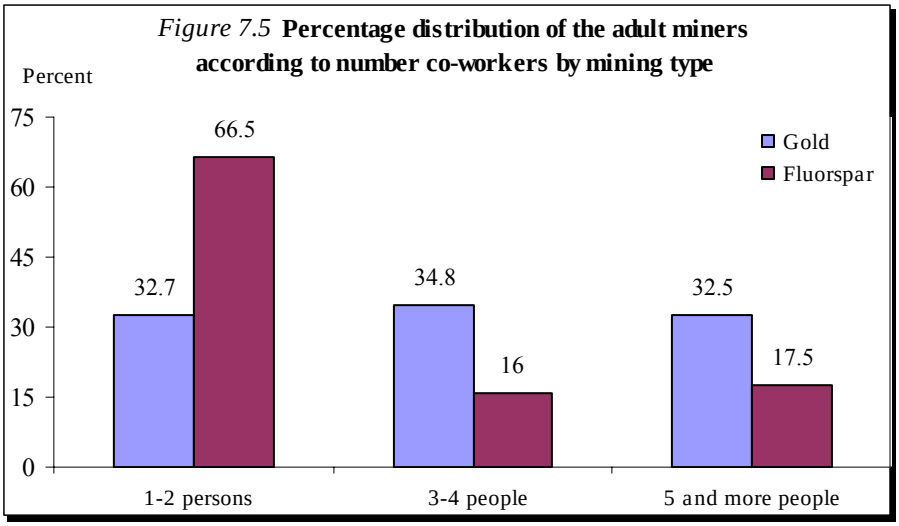
Table 7.7 **Percentage distribution of the adult miners, according to other economic activities by mining type and sex**

Other economic activities	Mining type					
	Gold			Fluorspar		
	Male	Female	All	Male	Female	All
Government/state owned organization	11.2	9.7	10.7	43.5	0.0	25.0
Private organization	27.6	13.8	23.3	0.0	41.8	17.8
Herders	19.2	4.7	14.8	42.7	29.1	36.9
Self employed	42.0	71.8	51.2	13.8	29.1	20.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number	**6512**	**2913**	**9425**	**363**	**268**	**631**

Over half of adults, who are engaged in other kinds of activities besides informal gold/fluorspar mining, are engaged in private business or are herders (Table 7.7). Shortage of cash (especially for herders), low level of salaries/income become a reason for them to engage in several kinds of work at the same time in order to increase their income. For instance, nearly one in every 10 adults in places with informal mining are engaged in such business as providing private services: operating ger shops (26.1 percent), a hairdresser's or a cafй (68.2 percent). Only 50 persons or 1.3 percent of workers working informally in fluorspar mines (who is engaged in small private business) gave such an answer.

Figure 7.5 shows the number of persons working together when engaging in informal gold/fluorspar mining.

Figure 7.5 **Percentage distribution of the adult miners according to number co-workers by mining type**



When asked about the work organization of informal gold/fluorspar miners, gold miners prefer working in teams of 3 and more persons, while fluorspar miners work in teams of up to 2 persons (65.4 percent) (Figure 7.5). Among workers in gold mines persons united in one team are mostly friends (50.6 percent), family members (42.2 percent) or other relatives (26.6 percent). Among workers in fluorspar mines persons united in one team are mostly family members (42.1 percent) or acquaintances (35.3 percent).

7.5 Working conditions and labor protection

Duration of work

Duration of work of adults engaged in informal gold/fluorspar mining is shown in Table 7.8 by the kind of mineral mined.

Table 7.8 **Percentage distribution of the adult miners, according to duration of work by mining type and sex**

Time period/duration of work	Mining type					
	Gold			Fluorspar		
	Male	Female	All	Male	Female	All
Time period to work mostly						
Whole year	43.8	28.6	39.1	24.0	43.7	32.9
Seasonally	31.2	52.9	38.0	64.1	41.1	53.7
Only holidays/vocations	25.0	18.5	22.9	11.9	15.2	13.4
Number of days work for last week						
1-3	25.5	30.8	27.1	14.9	25.0	19.4
4-6	23.8	25.5	24.4	43.3	14.3	30.3
7	50.7	43.7	48.5	41.8	60.7	50.3
Mean	*5.3*	*4.9*	*5.2*	*5.3*	*5.6*	*5.5*
Number of hours work for last week per day						
1-7	14.7	22.4	17.1	28.3	19.9	24.6
8	22.9	22.5	22.8	35.9	49.1	41.8
9 and more	62.4	55.1	60.1	35.8	31.0	33.6
Mean	*9.9*	*9.8*	*9.9*	*8.5*	*8.5*	*8.5*
MIN	*1*	*1*	*1*	*5*	*5*	*5*
MAX	*18*	*18*	*18*	*13*	*12*	*13*
Have a rest time during the work						
Have	48.6	41.3	46.3	80.4	56.3	69.5
Have not	51.4	58.7	53.7	19.6	43.7	30.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number	**23202**	**10758**	**33960**	**2171**	**1775**	**3946**

Informal, manual gold/fluorspar mining is an activity requiring a lot of workforce expenditure. Although it requires many hours of work outside, in open areas, has a seasonal character and depends much on weather conditions, 39.1 percent of total adults working informally in this sector, work all year round. The percentage of those who work in gold mines when they need a large amount of money or during their holidays is quite high (22.9 percent), among fluorspar miners-13.4 percent. As for sex, there are no significant differences among men and women working in gold mines. In gold mines, the percentage of men working in mines all year round is 1.5 times greater than that of

women, on the contrary, the percentage of women who work in the fluorspar all year round is nearly twice higher than that of men.

The average duration of a working day in the week prior to the survey was similar among gold as well as fluorspar miners (5.2 and 5.5 days respectively). As for sex, there were slight differences. For instance, while in gold mines the percentage of men who worked for a whole week in the mine was higher than that of women; in fluorspar mines this indicator was higher among women.

When the average duration of a working day in the last week of work was examined, while gold miners worked for 9.9 hours, among fluorspar miners the average working day was shorter by 1.4 hours, or it was 8.5 hours. The percentage of adults working nine and over hours a day is the highest among workers in gold mines. While informal gold miners work at least for 1 hour and at the most for 18 hours a day, fluorspar miners work at least for 5 hours and at the most for 13 hours a day. Since we conducted our survey in the last month of autumn, duration of working hours per day might have been longer.

While less than half (46.3 percent) of gold miners reported having some days for rest during work in mines, two thirds (69.5 percent) of those working in fluorspar mines have holidays. In any kind of mines, the percentage of women who reported having holidays is lower than that of men. It might be that labor distribution in informal gold/fluorspar mining is slightly different among men and women, for example, it might be related to a fact that men implement more difficult tasks in a shorter period and women carry out easier tasks in the longer period. The reasons could also be that the women are more responsible for the work, have double work, are more strenuous then men, cannot afford to take any days off.

Labor protection and safe work

While 65.9 percent of informal workers in gold mines and 41.3 percent of informal workers in fluorspar mines reported lack of any knowledge on safety of mining operations and hygienic standards for mining (Table 7.9).

Table 7.9 **Percentage distribution of the adult miners, according to the level of knowledge on safety and hygienic standards/requirements by selected characteristics**

Selected characteristics	Safety and health standards							
	Gold				Fluorspar			
	Know, follow them	Know, not follow them	Do not know	**Total**	Know, follow them	Know, not follow them	Do not know	**Total**
Age								
Under 25	10.1	15.8	74.1	**100.0**	0.0	0.0	100.0	**100.0**
25-29	0.0	6.5	93.4	**100.0**	64.5	0.0	35.5	**100.0**
30-34	25.2	22.0	52.7	**100.0**	35.2	24.5	40.3	**100.0**
35-39	22.4	7.3	70.4	**100.0**	36.9	18.5	44.6	**100.0**
40-44	45.8	16.9	37.3	**100.0**	40.2	0.0	59.8	**100.0**
45 and over	18.9	37.7	43.4	**100.0**	52.2	16.8	31.0	**100.0**
Sex								
Male	19.4	17.8	62.8	**100.0**	71.0	10.2	18.8	**100.0**
Female	11.6	15.8	72.5	**100.0**	19.8	8.2	72.0	**100.0**
Total	**17.0**	**17.2**	**65.9**	**100.0**	**49.4**	**9.3**	**41.3**	**100.0**

Lack of knowledge on safety issues, not following standards even if they know about them becomes the main reason for accidents. Especially, among young people under 30 years old working informally in gold/fluorspar mines the level of knowledge is considerably low.

The percentage of women working in gold and fluorspar mines who reported lack of knowledge on safety and hygienic standards (72.5 and 72.0 percent respectively) is quite high compared to that of men (62.8 and 18.8 percent respectively).

It is clear that there is a need for training on and promotion of labor protection, safety issues in mining sector among persons working informally in this field.

Only 21.4 percent of adult miners have received some information about safe operations and hygienic requirements in mining. Information was mostly received from the mines where they previously worked officially or from relatives and friends.

The minimal requirements for labor protection and safety in mining are working clothes and devices and their regular use. Use of working clothes is unsatisfactory among informal gold/fluorspar miners (Table 7.10). For instance, use of the face mask at least is important while working in gold mines, but only half of workers use it.

Table 7.10 Percent of the adult miners, according to use of protective devices by mining type

Safety tools	Mining type					
	Gold			Fluorspar		
	Always	**Seldom**	**Don't use**	**Always**	**Seldom**	**Don't use**
Waterproof boots	**31.5**	**36.9**	**31.6**	**4.8**	**3.8**	**91.4**
Cloth industrial gloves	**80.9**	**12.8**	**6.3**	**89.1**	**7.2**	**3.7**
Head covering	**8.4**	**5.5**	**86.1**	**14.6**	**12.6**	**72.8**
Rubber gloves	**64.3**	**25.2**	**10.5**	**27.3**	**8.8**	**63.9**
Leather boots	**42.4**	**14.4**	**43.2**	**50.6**	**9.4**	**40.0**
Face mask	**24.8**	**19.4**	**55.8**	**38.9**	**21.1**	**40.0**
Earplugs	**3.8**	**3.2**	**93.0**	**4.1**	**0.0**	**95.9**
Cowl	**83.2**	**10.4**	**6.4**	**22.6**	**28.1**	**49.3**

Working conditions

Over 90 percent of adults working in gold mines view their working conditions as very poor (77.0 percent) and poor (17.2 percent), over 80 percent of those working in fluorspar mines view their working conditions as very poor (59.8 percent) and poor (22.1 percent) (See Table 7.11).

When the above evaluation of working conditions is examined by age group, the emerging picture is different for different age groups. As for sex, 75.8 percent of women working in gold mines assessed their working conditions as very poor, which is by 1.8 points lower compared to men. The percentage of women working in fluorspar mines, who assessed their working conditions as very poor (63.8 percent), is 7.2 points higher than that of men.

Table 7.11 **Percentage distribution of the adult miners, according to evaluation of their working conditions and mining type by selected characteristics**

Selected characteristics	Working condition							
	Gold				Fluorspar			
	Very poor	Poor	Somewhat good	**Total**	Very poor	Poor	Somewhat good	**Total**
Age								
Under 25	82.1	16.8	1.1	**100.0**	0.0	23.8	76.2	**100.0**
25-29	66.3	23.2	10.5	**100.0**	55.8	36.8	7.5	**100.0**
30-34	90.7	9.0	0.3	**100.0**	50.4	16.4	33.2	**100.0**
35-39	82.9	15.1	2.0	**100.0**	84.3	15.7	0.0	**100.0**
40-44	86.1	6.9	6.9	**100.0**	39.2	26.3	34.5	**100.0**
45 and over	48.5	31.0	20.5	**100.0**	100.0	0.0	0.0	**100.0**
Sex								
Male	77.6	17.5	4.9	**100.0**	56.6	29.4	14.0	**100.0**
Female	75.8	16.4	7.9	**100.0**	63.8	13.2	23.0	**100.0**
Total	**77.0**	**17.2**	**5.8**	**100.0**	**59.8**	**22.1**	**18.0**	**100.0**

7.6 Some health issues

Of adults engaged in informal gold mining 13.8 percent, of those working in fluorspar 12.1 percent had accidents, while working in mines and more men than women had them. Most of those who had accidents fell down into pits, and received medical assistance in soum clinics.

Of informal gold miners 41.3 percent (43.9 percent of women and 40.1 percent of men), of those working in fluorspar mines 17.3 percent (26.9 percent of women and 9.4 percent of men), answered that there were changes in their health status since they started working in mines.

Medical insurance coverage

Although over 80 percent of adults engaged in informal gold/fluorspar mining are covered by medical insurance and have the documents, about 1/4 of them have not paid their insurance fees. Those who are not covered by medical insurance have limited opportunities to access health services. As for sex, 25.0 percent of men working in this sector are not covered by medical insurance, which is 9.5 points higher than the percentage of women without an insurance (Figure 7.6).

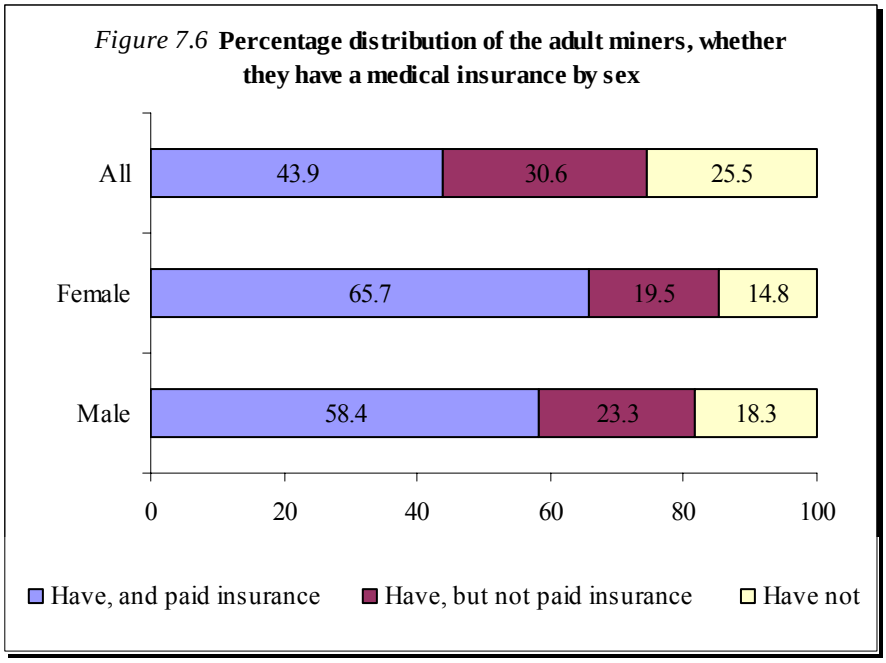


Figure 7.6 **Percentage distribution of the adult miners, whether they have a medical insurance by sex**

Alcohol consumption

Consumption of alcoholic beverages in order to relax and relieve stress after hard labor is widespread among informal gold/fluorspar miners (Figure 7.7). Consumption pattern of alcohol is similar in all age groups up to age 44 and it is quite lower for age 45 and above.

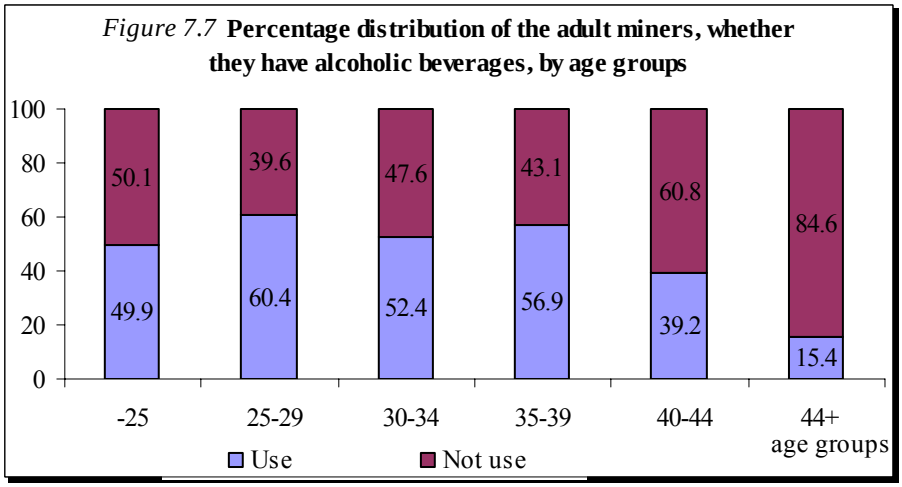


Figure 7.7 **Percentage distribution of the adult miners, whether they have alcoholic beverages, by age groups**

7.7 Conflicts among persons

We aimed to clarify whether there are conflicts among illegal workers engaged in informal mining of minerals and whether they have conflicts with security workers in mines. The results are shown in Table 7.12.

While 63.2 percent of workers in gold mines and 26.5 percent of those working in fluorspar mines answered that there were some conflicts between informal gold/fluorspar miners and security workers. It can be seen that more conflicts take place in gold mines.

Table 7.12 **Percentage distribution of the adult miners, according to whether they have any conflicts by mining type**

Selected indicators	Mining type	
	Gold	Fluorspar
Conflict between ninjas and police*		
Always	18.0	2.6
Sometimes	11.9	10.6
Seldom	33.3	13.3
Never	32.3	70.7
Do not know	4.5	2.8
Conflict among ninjas		
Always	26.7	8.0
Sometimes	16.1	2.8
Seldom	24.5	22.3
Never	30.4	66.9
Do not know	2.3	0.0
Total	**100.0**	**100.0**
Number	**33960**	**3946**

Note: * - police and security

While 27.0 percent of informal gold miners reported some kind of pressure while working, only 9.3 percent of fluorspar miners gave such an answer. The percentage of those who reported pressure of some kind from security in the mines or police workers, or local residents, or administrative workers is the highest. Forms of reported pressure are as follows: not allowing to work, verbal insults, extortion of money, beatings.

7.8 Changes in income and livelihood level

The average monthly income of workers in informal gold/fluorspar mining is shown in Table 7.13 by the kind of mineral mined.

Table 7.13 Percentage distribution of the adult miners, according to income indicators by mining type

Income indicators	Mining type	
	Gold	Fluorspar
Income from gold mining (MNT*)		
Less than 50,000	45.8	25.2
50,000-100,000	23.0	35.2
100,001-150,000	10.0	11.6
150,001-200,000	10.0	16.3
More than 200,000	11.1	11.7
Average monthly income from gold/ fluorspar mining (MNT)	**119026.2**	**122214.3**
Average amount of mined gold/fluorspar in a week (gram)	**4.758**	**5287.5**
Total	**100.0**	**100.0**
Number	**33960**	**3946**

Note: ***** **1 USD= 1.227 MNT**

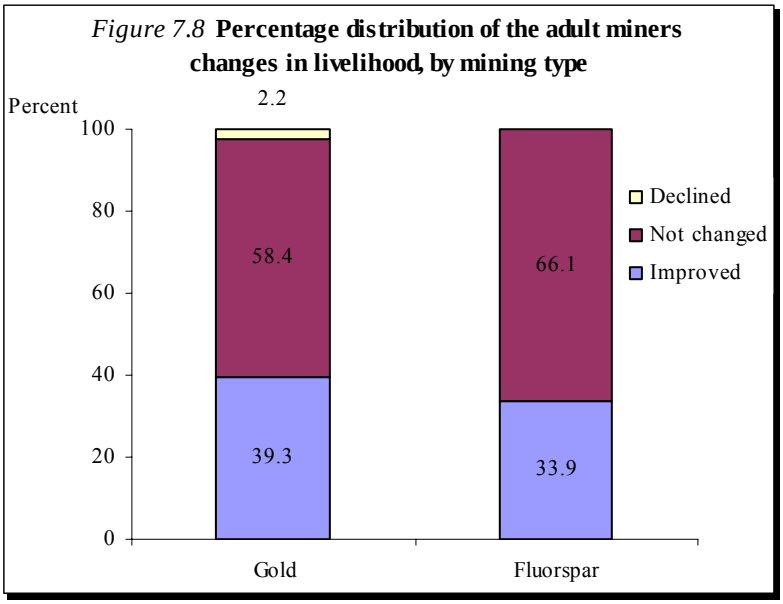
While 45.8 percent of adults working informally in gold mines have an average monthly income of less than 50000 MNT, the percentage of population with such income is 20.6 points lower among workers in fluorspar mines.

While informal gold miners mine in average 4.758 gram of gold a week and earn 119026 MNT a month, fluorspar miners mine in average 5287.5 kg a week and earn an income of 122214 MNT a month. In other words, the average monthly income of informal workers in fluorspar mines is by about 3188 MNT higher than that of those working in gold mines.

Although the majority of informal gold/fluorspar miners (98.2 percent of gold and 100 percent of fluorspar miners) sell the mined mineral for cash, 30.8 percent of workers in gold mines and 40.8 percent of those working in fluorspar mines have to pay some kinds of taxes and fees.

In general, 35.6 percent of survey respondents answered that their livelihood has improved since they engaged in gold/fluorspar mining, 60.3 percent replied that it has not changed. Figure 7.8 shows whether any changes have taken place in the livelihood of households since starting informal gold/fluorspar mining, by the kind of mineral mined. Only 1.8 percent persons working in gold mines view that their livelihood declined.

Figure 7.8 **Percentage distribution of the adult miners changes in livelihood, by mining type**

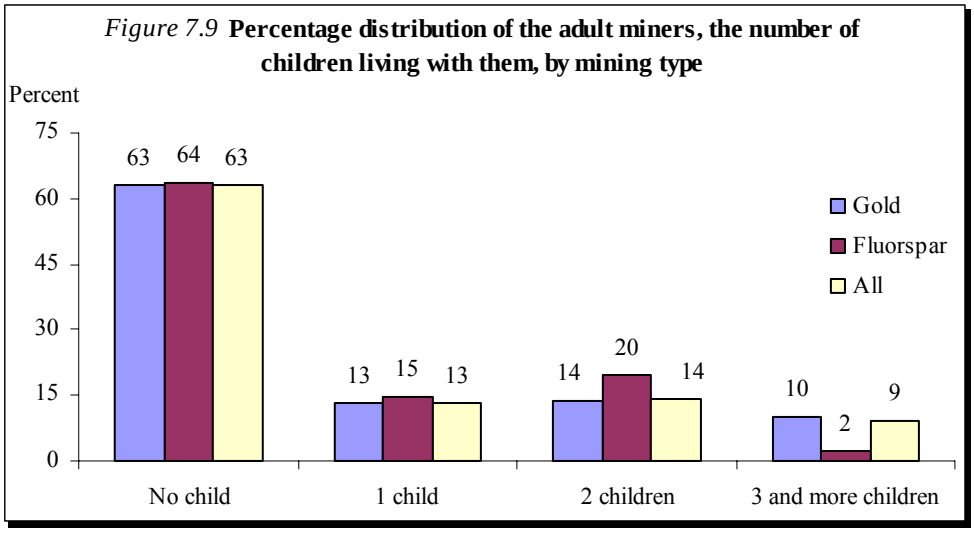


7.9 Views of adults on working children

The number of children living with adults who work informally in gold/fluorspar mines, covered by the survey is shown in Figure 7.9 by the kind of mineral mined.

Over 40 percent of adult miners live in informal gold/fluorspar mining areas with children under 18 years old. While 28.1 percent of adults replied that children living together with persons engaged in informal mining participate in mining (28.2 percent of workers in gold mines, 27.4 percent of those working in fluorspar mines).

Figure 7.9 **Percentage distribution of the adult miners, the number of children living with them, by mining type**



As adults reported, 8.4 percent (1379 children) of children living together with adults besides gold/fluorspar mining are engaged in such second jobs as working in other different kinds of mines (45.6 percent), operating a game center (20.0 percent) herding livestock (17 percent), and selling food stuff in the proximity of mines or in ger shops (14.4 percent).
When asked why children are employed in mines, of adults with whom children under 18 live in the proximity of mines, 30.8 percent answered that children themselves are interested in working here, 30.6 percent-that they wish to contribute to their own livelihood, 19.7 percent- that they work only during summer vacation. As for fluorspar miners, they employ children as they work only during summer vacation (54.6 percent) and they themselves wish to help their parents (45.4 percent).

Of adults 76.2 percent view that children working in gold/fluorspar mines should not be allowed to do such kind of work and should be withdrawn from such work. However, the percentage of adults working in gold mines who gave such an answer (76.9 percent) is 9.1 points higher than that of adults working in fluorspar mines.

Of the above underage children who work in mines 23.7 percent do not study at school. The main reasons for children not attending school, as adults reported, are the young age of children (younger than school enrollment age) and lack of financial capacity of households.

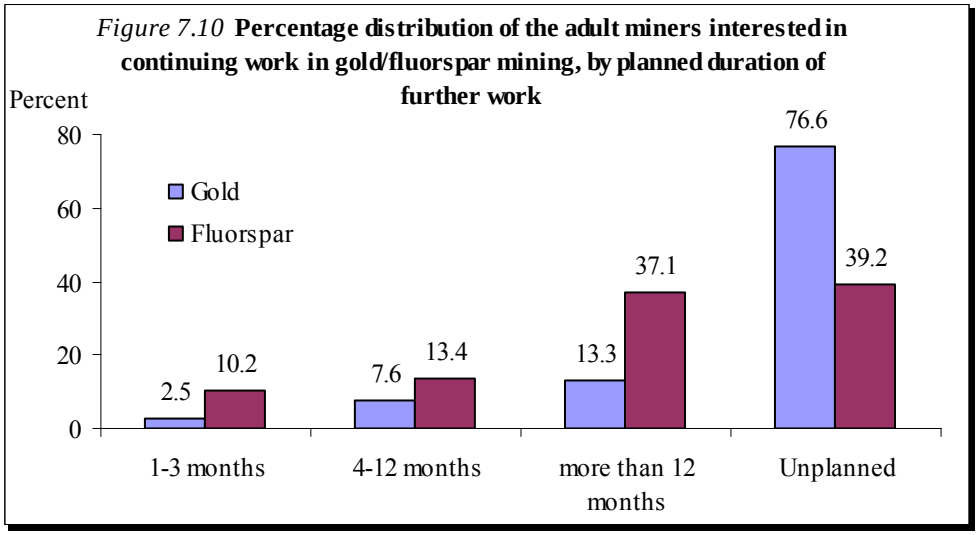
7.10 Future trends for informal gold/ fluorspar miners

Of adult miners 52.9 percent (52.4 percent of those working in gold mines and 57.9 percent of fluorspar miners) intend to continue informal gold/fluorspar mining activities (See Table 7.14).

Table 7.14 Percentage distribution of the adult miners, according to the desire of continuation of gold/ fluorspar mining by mining type

Desire for continuation	Mining type	
	Gold	Fluorspar
Will continue	52.4	57.9
Will not continue	33.5	33.7
Do not know	14.1	8.4
Total	**100.0**	**100.0**
Number	**33960**	**3946**

When asked how long they were going to work in this field, over half did not plan a specific time (Figure 7.10). Especially among workers in gold mines this unclear situation was the most widespread.



For instance, 76.9 percent of informal gold miners in gold mines and 45.2 percent of informal workers in fluorspar mines have not planned duration of further work in this field.

Views of adults on coordination of informal gold/fluorspar mining

Of adult miners 43.7 percent view that informal gold/fluorspar mining should be coordinated with assistance of special laws and regulations, over one third or 34.3 percent-through programs and projects at national level.

Respondents view that in order to improve the present situation of informal gold/fluorspar miners the government first of all should give them a permission to work in this field (33.9 percent), to conduct activities directed towards improving health status, working conditions, labor protection of miners (23.6 percent), to take measures on monitoring and organization of labor (10.5 percent).

POLICY RECOMMENDATIONS

The "Baseline survey on child and adult workers in informal gold and fluorspar mining" collected data on the number of children and adults engaged in informal gold and fluorspar mining, their distribution, their profile, employment. We also aimed to determine views and attitudes of parents and employers of children engaged in informal gold and fluorspar mining on child labor. Following general conclusions and recommendations are made from the present survey:

1. Migrants make up a significant part of total population engaged in informal gold and fluorspar mining covered by the survey and lack of registration at the aimag of residence is widespread among them. Since lack of registration limits their opportunities to access education and health services it is necessary to solve the problem of their registration.

2. Attention should be paid to the fact that the percentage of illiterate children and school drop-outs is high among children engaged in informal gold and fluorspar mining, especially among migrant children. It is necessary to organize work on intensifying implementation of the Law on compulsory basic education for all children at the age under 16 in rural areas.

3. There are a number of cases when children migrants moved to mines on their own. On the other hand there cases when parents suggested their children to work in mining and even exerted pressure on them to start working, which illustrates a need to conduct activities directed towards improving parents' care for their children, raising their awareness of harmful consequences of working in informal gold /fluorspar mining.

4. In households where children work in gold and fluorspar mines, the majority of their average monthly income is derived from gold/ fluorspar mining and in general low living conditions of the household become the main reason for children to engage in gold/ fluorspar mining. On the other hand, there were a considerable number of cases, when respondents answered that their livelihood has improved since they engaged in gold/fluorspar mining. Therefore, with regard to the fact that gold/ fluorspar mining is the main activity helping them to sustain their livelihood, it is necessary to conduct coordination activities in order to organize such manual gold/ fluorspar mining activities into one unified form in the legal frame instead of trying to stop them.

5. It is necessary to conduct training and promotion in order to improve the level of knowledge on safety issues and hygienic standards in gold/ fluorspar mining sector among children, adults, parents and employers of children working informally in this field; to involve state organizations and NGO's in this work.

6. As gold/ fluorspar mining can not be regulated only by the state policy, local administrative institutions of the given soum should implement related activities and coordinate activities of individuals engaged in gold/fluorspar mining.

7. Due to lack of minimal knowledge on safety and labor protection ion mines, lack of protective clothing, conflicts in mines, having accidents and falling ill because of working conditions is common among individuals working in gold/fluorspar mines. It is necessary to study possibilities for improving access to health services, for establishing a centre providing medical assistance in the vicinity of mines, and organize work on its implementation.

Appendix-1

LIST OF PARTICIPANTS

Coordinator:

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B.Munkhjargal	Lecturer/Researcher, PTRC
B.Narantulga	Researcher, PTRC
B.Erdenesuvd	Researcher, PTRC

Field supervisors and Interviewers:

Field supervisors

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Ts.Badrakh	Advisor, NSO
J.Munkhbadar	MA student, SES, NUM
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B.Erdenesuvd	Researcher, PTRC

Interviewrs (Reseacher and BA and MA students, PTRC, SES, NUM)*:*

B.Naranchimeg	Researcher, PTRC
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B.Anujin	Sh.Ayushjav
B.Bayarsaikhan	D.Bolortuya
T.Bolor-Erdene	M.Zoljargal
B.Zorigt	B.Zorigtbayar
M.Narangerel	D.Nasanbuyan
A.Otgonbileg	J.Oyuntsetseg
B.Purev-Ulzii	A.Selenge
P.Tur-Enkh	Sh.Udvalzaya
M.Uuganbayar	B.Tsolmon
G.Tseveenpurev	S.Tsedenlkham
E.Khishgee	E.Enkhbold

Translator:

E.Sainbileg	Head, Englsh department, SES, NUM

Listing questionnaire

Aimag ☐☐

Soum ☐☐

Bagh ☐☐

Household number ☐☐☐☐

Household location In mining place 1 In bagh area 2 ☐

Whether have resigtration in the sou Yes 1 No 2 ☐

Line numbers of HH members	Please give all the names of household members Start with the head of the household	Age In completed years	Sex Male 1 Female 2	Aged 6-17 Is (Name) studying now? Yes 1 No 2	How long has (Name) been living here? 5 and over years 1 3-5 years 2 1-3 years 3 6 months-1 year 4 Up to 6 months 5	How long is (Name) living here further? 5 and over years 1 3-5 years 2 1-3 years 3 Up to 1 year 4 Only for this season 5 DK 9	Does (Name) engage in mining activity? Please answer based on main participation Yes, in gold mining 1 Yes, in fluorspar mining 2 Doesn't engage 3	Eligibility Aged 5 and over, q8=1 or 2 then q9=1, for other cases q9=2 Yes 1 No 2	Mining type and age group If q9=1 then interviewers will put based on age and engagement in mining activity of the respondents. For example: CG-Children working in gold mining	Sample serial number Number to be used for sampling	Number of sample units Number of persons, who will cover by the survey
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
01		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
02		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
03		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
04		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
05		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
06		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
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08		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
09		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
10		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
11		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
12		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
13		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
14		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
15		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
16		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐
17		☐☐	1 2	1 2	☐	☐	☐	1 2	☐☐	☐☐☐☐	☐☐

CHILD QUESTIONNAIRE

The answers to the questions will be kept confidential.

SCREENING FORM

Aimag name ..... ☐

Soum name ..... ☐☐

Bagh name, number ..... ☐☐

Respondent name, number ..... ☐☐

Name of mining place ..... ☐☐

Mining type ..... Gold 1 Fluorspar 2 ☐

Check: If gold mining ..... Hard rock 1 Placer mining 2 ☐

Sampling serial number ..... ☐☐☐☐

Results of employers questionnaire

Completed	1
Absent from home	2
Refused	3
The child hasn't employer	4
Others /specify/	5

Results of parents questionnaire

Completed	1
Absent from home	2
Refused	3
Do not live in the mining place	4
Others /specify/	5

Interviewed Month ☐☐ Day ☐☐

Name of interviewer ..... ☐☐

Name of field supervisor ..... ☐☐

Edited by ..... ☐☐

Data entered by ..... ☐☐

PART 1. BACKGROUND INFORMATION

No.	Questions	Codes	Step
100	Age of the chiild worker	In completed years [ ][ ]	
101	Sex of the child worker	Male 1 Female 2	
102	Where were you born?	Aimag/City [ ][ ] Soum/District [ ][ ]	
103	How long do you live in this soum?	Temporary resident 1 → 105 Less than 5 years (1-4 years) 2 5 and more years 3 → 107	
104	Does your household have registration in this soum?	Yes 1 No 2 Do not know 9	
105	What was the main reason of coming/moving to this soum?	To work 1 To work in gold/fluorspar mining 2 To join relatives 3 To be close to the market 4 To study 5 For treatment 6 Due to bad ecological conditions 7 Others 8 specify	
106	With whom did you come/move here? *Circle all that apply*	By myself A With parents B With sister/brother C With grand parents D With relatives E With friends (with consent of parents) F With friends (without consent of parents) G Other X specify	
107	Where do you usually live?	Place of mining 1 In this soum center 2 In other aimag/soum center 3	
108	How far is your household from mining place?	Meters [ ][ ][ ][ ][ ][ ]	
109	How long do you live in this place of mining?	Months [ ][ ][ ]	
110	Do you intend to reside in this place of mining?	Yes 1 No 2 → 112	
111	If yes, how many months do you intend to reside in this place of mining?	Months [ ][ ][ ] → 116	
112	If no, how many months after do you move?	Months 1 [ ][ ][ ] Do not know/Plan 9	
113	With whom do you plan to move? *Circle all that apply*	By myself A With parents B With sister/brother C With grand parents D With relatives E With friends (with consent of parents) F With friends (without consent of parents) G Other X specify	
114	Where do you move?	Capital city 1 Aimag center 2 Soum center 3 Another mining place of gold and fluorspar 4 Others 5 specify	

115	Why do you move from this place of mining? *Circle all that apply*	To work A To work in other place of mining of gold and fluorspar B To study C For treatment D To be close to the market E To join relatives F Others X specify	
116	How many person work in mining from your household?	Children aged 5-17 ☐☐ Adults aged 18 and above ☐☐	
117	Do you have a birth certificate? *(Ask, does he/she have ID if he/she aged 16 and above)*	Have 1 Have not 2 Don't know 9	
118	Do you have health insurance?	Have 1 Have not 2 Don't know 9	
119	Can you read? *(check by making them read a question)*	Yes 1 No 2	
120	Can you write? *(check by making them write a word)*	Yes 1 No 2	
121	Are you studying now? *(formal or informal school)*	Yes, formal 1 Yes, informal 2 No 4	→ 124
122	Which grade are you in?	Grade ☐☐	
123	How is your performance at school in the past academic year?	A (90-100 score) 1 B (80-89 score) 2 C (70-79 score) 3 D (60-69 score) 4 F (less than 60 score) 5	→ 125
124	If no, why? Provide the main reason. *Circle all that apply*	Learning unsuccessfully A Because of working in mining B Bacause of other work C Lack of income/money D Domestic problems (Not economic reason) E School is too far F Have no registration or ID/Migrated G Health problems H Others X specify	
125	Are your parents alive?	Both alive 1 Both dead 2 Mother alive, father dead 3 Father alive, mother dead 4	→ 127
126	Do you live with them (father/mother) now?	Live with both parents 1 Live with mother 2 Live with father 3 Live with mother and stepfather 4 Live with father and and stepmother 5 No 6	→ 128
127	With whom do you live?	Grand mother's/grand father's/sister/brother's 1 Relatives' 2 Family I know 3 Employer's family 4 Others 9 specify	

128	How is your relation to your household after working in mining?	I go home 1 My parents/HH members come in this place of mining 2 I call my household 3 I write a letter 4 I delivered message concerning mc 5 No any relation 6 Others 7 specify	
	CHECK: QUESTION 107	Live in place of mining → **129** Live in this soum center and another soum/aimag → **200**	
129	What type of dwelling do you usually live in this place of mining?	Ger 1 House 2 Hovel/Hat 3 Tent 4 Others 5 specify	
130	How many person live in the dwelling?	**Total** ☐☐ Out of whichc: Children aged less than 18 ☐☐ Adults aged 18 and above ☐☐	
131		Private/Dwelling of my parents 1 Not private: 2 Rented 3 Nothing pay for dwelling of relatives/friends 4 Nothing pay for dwelling of employer 5 Others 6 specify	
132	What type of ligthing does your household use?	Centralized electricity 1 Non-centralized electricity 2 Motor 3 Candle 4 Others 5 specify	
133	What is your main source of drinking water in the mining place (during the work)?	Protected well 1 Unprotected well 2 Greek/Stream 3 Back stream 4 Others 5 specify	
134	How far is your household from drinking water?	Meters ☐☐☐☐	
135	Is there any sanitary facilities and toilet close to your household?	Yes / No Sanitary facilities 1 / 2 Toilet 1 / 2	

PART 2. PAST AND CURRENT WORK

200	What age did you start to work?	Age ☐☐	
201	Is current job your first job?	Yes 1 No 2	→ 204a
202	What was your first job?	Herding 1 Domestic work 2 Vending at market or street 3 Collect cans and bottles 4 Singing/games 5 Wash/look after cars 6 Clean shoes 7 Others 8 specify	
203	How many times do you change your work?	Frequences ☐☐	
204a	Why do you have to work? *Circle all that apply*	1. Parents are unemployed A 2. To support household income B 3. Dropped out of school C 4. To have own income D 5. Forced by parents E 6. To have work experiences F 7. Others X specify	
204b	Please provide ordinally main reasons by significances, which is given on the question 204a.	1 2 3	
205	What age did you start to work in gold/fluorspar mining ?	Age ☐☐	
206	Did you work in a other type of mining? (coal etc.,)	Yes 1 No 2	
207	Did you work in other place of this type of mining? (for location)	Yes 1 No 2	→ 210
208	If yes, how many mining place did you work?	Frequences ☐☐	
209	What is a reason to change mining place?	Due to yield reduction 1 Bad relationship to co-workers 2 Punishment/harassment/insults 3 So far from the school 4 Mining is not working 5 Employer pay low remuneration 6 Others 7 specify	
210	How many months do you work in the mining place?	Months ☐☐☐	
211	How many person do you work with in the mining place?	**Total** ☐☐ Out of which: Relatives ☐☐ Non relatives ☐☐	
	CHECK: The child work alone (Q211=1) then circle "A" response on Q212 only (Q212=A)		
212	Whom do you usually work with? *Circle all that apply*	Myself A Parents/family members B Relatives C Friends D Acquaintances E Other X specify	

213	Who suggested you this work?	Myself 1 Parents/Household members 2 Co-workers 3 Friends 4 Relatives 5 Other 6 specify	
214	When your work start a day?	AM ☐☐	
215	When your work finish a day?	PM ☐☐	
216	How many hours a day approximately do you work in mining place?	Hours ☐☐	
217	Do you have a time-out a day?	Yes 1 No 2	
218	How many months a year approximately do you work in mining place?	Months ☐☐	
219	In which seasons, do you work permanently?	Winter 1 Spring 2 Summer 3 Autumn 4	
220	What are your doings in mining of gold/ fluorspar? *Ask to mention*	**Yes / No / Not related** Digging a hole/soil 1 2 Fetching water/soil 1 2 Sifting soil 1 2 Transporting ore/stone 1 2 Crushing and milling ore/stone/fluorpsar 1 2 Digging gold/flourspur 1 2 Panning gold 1 2 3 Digging mercury 1 2 3 Amalgamating with mercury 1 2 3 Cubing fluorspar 1 2 3 Drilling stone 1 2 Working on compressor and knotted rope for simple hauling 1 2 Explosive 1 2 3 Scooping out bottom water 1 2 3 Sluicing 1 2 3 Other 1 2 3 specify	
221	Do you use the following equipments in mining? *Ask to mention*	**Often / Seldom / No** Shovels 1 2 3 Small/sledgehammers 1 2 3 "Oscov" (sharp equipment to make a hole 1 2 3 Ropes 1 2 3 Sacks 1 2 3 Candles 1 2 3 Torches 1 2 3 Metal riddling sieve 1 2 3 Mercury 1 2 3 Mercury containers 1 2 3 Green plastic gold pans 1 2 3 Buckets 1 2 3 Pestle 1 2 3 Crowbar 1 2 3 Explosive items 1 2 3 Motor sieve 1 2 3 Simple sieve 1 2 3 Sluice 1 2 3 Knotted rope 1 2 3 Others 1 2 3 specify	

222	How do you get these equipments?	My own 1 Rented 2 Borrowed (Nothing pay for the equipment) 3 Mixed 4	
223	Have you ever faced any violence and abuse at work?	Yes 1 No 2	→ 226
224	If yes, from whom? *Circle all that apply*	Household members/Relatives A Local people B Police officers C Security guards D Other ninjas/people at the mining place E Governors F Others X specify	
225	What kind of violence and abuse do you face? *Circle all that apply*	Scolds me A Beats me B Pillages C Asks money D Forces to work for them E Do not allow to work F Do not provide food/Provide insufficient food G Sexual abuse H Others X specify	
226	Where do you get a meal during your work?	Canteen in working area 1 People who are selling in working area 2 Home/Brought from home 3 Prepare with co-workers 4 Prepare myself 5 Others 6 specify	
227	How many times do you eat hot meal a day?	No 1 One 2 Two 3 3 and over 4	
228	Do you eat one's fill?	Yes 1 No 2	
229	Did you spend a day without hot meal in the last week?	Yes 1 No 2	→ 231
230	If yes, how many days?	Days ☐	
231	How, in your opinion, is your working condition harmful?	Yes 1 No 2	
232	How difficult is your working condition?	Very difficult 1 Satisfactory 2 Easy 3	
233	Do you do another work than mining of gold/fluorspar?	Yes 1 No 2	→ 235
234	If yes, what type of work?	Sell retail foods 1 Sell goods in mining places 2 Play game 3 Service to others (carry water, prepare woods etc.,) 4 Other 5 specify	

235	Please answer below questions concerning to working conditions. *Ask to mention*		

	Always	Seldom	No
Work under ground/in hole	1	2	3
Work in water	1	2	3
Work under sharp sun ligth	1	2	3
Work under cold place	1	2	3
Work under noisy place	1	2	3
Work under dusty place	1	2	3
Work under unhygienic place	1	2	3
Work under harmful place	1	2	3
Work with explosive items	1	2	3
Carry heavy loads	1	2	3
Use sharp point items	1	2	3
Work under risk place of getting cut and burned	1	2	3
Work under confined space	1	2	3
Work under higher place	1	2	3
Work in mid-nigth	1	2	3

PART 3. INCOME

300	For whom do you work in mining?	Myself 1 Household only 2 Employer only 3	305
301	How does your employer usually pay to you?	By cash 1 By kind/Goods 2 Both 3	303 309
302	How much is your monthly wage from employer?	MNT ☐☐☐☐☐	309
303	What type of kind/good does employer pay to you?	Foods 1 Clothes 2 Materials for schooling 3 Others 4 specify	
304	Who gets your wage from employer?	Myself 1 Parentts 2 Brothers/Sisters 3 Grandparents 4 Co-workers 5 Others 6 specify	309
305.	How many gram gold/fluorspar do you produce in a typical month? *If child works in gold mining, please circle for gold only*	Gold, gramm ☐☐☐☐☐ Fluorspar, kilogramm ☐☐☐☐☐	
306	How do you usually sell gold/fluorspar?	By cash 1 By kind 2 Others 3 specify	
307	How much is your average monthly income from mining?	MNT ☐☐☐☐☐	
308	Who sells gold/fluorspar usually?	Myself 1 Parents 2 Relatives 3 Friends 4 Co-workers 5 Others 6 specify	
309	Do you have some debts?	Yes 1 No 2	312

310	Whom do you have debt?	Household members 1 Relatives 2 Employers 3 Friends 4 Co-workers 5 Others 6 specify	
311	In your opinion, how many time do you need to pay full debts?	Years 1 ☐☐ Months 2 ☐☐ Days 3 ☐☐	
312	How do you spend your incem from mining usually?	Household consumption 1 Myself 2 Playing/having fun 3 Payment for treatment 4 Payment for education 5 Pay debts 6 Saving 7 Others 8 specify	
313	What percent of your income do you give to your family?	Percent ☐☐☐ *(0% -100%)*	
314	What is your income contribution in your household income?	Main source of household income 1 Somewhat contribution in household income 2 Little contribution in household income 3 No contribution 4	

PART 4. HEALTH, WORK SECURITY AND BEHAVIOUR

400	Have you ever sick at work?	Yes 1 No 2	→ 404
401	How much time has passed since your last sickness?	Months 1 ☐☐ Days 2 ☐☐	
402	Are you still sick?	Yes 1 No 2	→ 404
403	What type of illness have you got? *Circle all that apply*	Respiratory diseases A Articular and muscular diseases B Dermatological diseases C Ear, nose and throat problems D Kidney and urinary tract diseases E Heart-vessel diseases F Fatigue G Other X specify	
404	Have you ever faced accident and infury?	Yes 1 No 2	→ 407a
405	What type of injury have you got?	Eye damages A Broken legs and arms B Lost legs and arms C Became deaf D Burned E Faint F Suffocated G Back injury H Head injury I No injuries J Other X specify	
406	Did you get any assistance from doctor/health professional?	Yes 1 No 2	→ 410
407a	**CHECK: Question 400**	Yes → **407b** No → **414**	
407b	Whom did you get assistance from?	Medical doctor 1 Family doctor 2 Nurse 3 Pharmasist 4 Traditional healer/lama 5 Others 9 specify	
408	In your opinion, how is quality of the services?	Very good 1 Good 2 Satisfactory 3 Poor 4	
409	Who paid for the treatment?	Unpaid 1 I paid 2 Parents paid 3 Grand parents paid 4 Siblings paid 5 Other relatives paid 6 Employer paid 7 Friends paid 8 Others /specify/ 9	411
410	Why didn't you consult/assist a health professional??	I didn't have money 1 Parents didn't have money 2 Employers not keen to pay 3 Far from the health center 4 Not registered/no ID 5 No health insurance 6 Didn't receive health officers 7 Didn't want to take health assistance 8 Others /specify/ 9	

411	Did you work as being sick?	Yes 1 No 2	→ 414
412	If yes, how long did you work as being sick?	Days ☐☐☐	
413	Who require to work from you?	I wanted 1 Parents 2 Brother/Sister 3 Co-workers 4 Employers 5 Other 6 specify	
414	Distance from your household to the nearest hospital	Meter 1 ☐☐☐☐☐ Do not know 9	
415	Comparing with time before working, how is your health?	Better 1 Same 2 Worse 3 Do not know 9	
416	Do you know about safety and health standards/requirements?	Yes, follow them 1 Yes, but not follow them 2 Do not know 9	
417a	Please specify protective clothes and equipments for your work? *Circle all that apply*	Rubber waterproof boots A Cloth industrial gloves B Head covering C Red rubber household gloves D Leather boots E Cowl F Strong belt G Footholds in shaft walls H Knotted rope for simple hauling I Face mask J Earplugs K Ventilation L Other X specify	
417b	Can you use following protective clothes and equipments in mining and processing?		

Clothes:	Always	Seldom	No
Rubber waterproof boots	1	2	3
Cloth industrial gloves	1	2	3
Head covering	1	2	3
Red rubber household gloves	1	2	3
Leather boots	1	2	3
Cowl	1	2	3
Others /specify/	1	2	3
Equipments:			
Strong belt	1	2	3
Footholds in shaft walls	1	2	3
Knotted rope for simple hauling	1	2	3
Face mask	1	2	3
Earplugs	1	2	3
Ventilation	1	2	3
Others /specify/	1	2	3

418	Do you smoke?	Yes 1 No 2	→ 421
419	How many pieces do you smoke a day?	Frequences ☐☐	
420	How old were you started to smoke?	Age ☐☐	
421	Have you ever try to drink alcohol?	Yes 1 No 2	→ 423

422	If yes, how often do you use alcohol?	Every day 1 Every week 2 Every month 3 During celebration only 4 Tasted once or twice only 5	
423	Have you used drugs or sniffed glue? (glue, drug, plants, petrol etc.)	Yes 1 No 2	→ 425
424	If yes, how often do you use?	Every day 1 Every week 2 Every month 3 During celebration only 4 Tried to use once or twice only 5	
425	Did you witness any prostitution among the girl aged up to 18?	Widely 1 Middle 2 Seldom 3 Not 4 DK 9	
426	Is there any following conflict/violation among the child workers in this mining?	Yes / No Robbing soil 1 2 Robbing money 1 2 Stealing oney 1 2 Hitting each other 1 2 Drunking 1 2 Others 1 2 specify	
427	Did you witness any conflict between ninjas and polices?	Always 1 Sometimes 2 Seldom 3 No 4 Dp not know 9	
428a	How is faced any accident in the mining?	Always 1 Sometimes 2 Seldom 3 No 4 Dp not know 9	
	Is there any accidient concerning and affecting a child?	Yes / No / Do not know Died 1 2 3 Disabled 1 2 3 To be delivered to hospital 1 2 3 Injured 1 2 3 Others /specify/ 1 2 3	
429	Have you been detained by the police?	Yes 1 No 2	→ 431
430a	Reasons you were in custody? *Circle all that apply*	Theft A Fight B Undiscipline C Rape D Others X specify	
430b	How is the relation of police to you in the time?	Relation of police was simple A Scolded me B Scared me C Beats me by stick D Forced to receive fact E Others X specify	

431	Where do you mostly spend your free time?	At home 1 At grand parents/siblings 2 Service, entertainement places 3 Market/shopping center 4 At friends' 5 At street 6 At mining place 7 Others 8 specify	
432	What do you usually do in your free time?	Play 1 Sleep 2 Watch TV 3 Read 4 Go to school 5 Help with household work 6 Help parents with agricultural work 7 Help parents with their small business 8 Do nothing 9 Others 10 specify	

PART 5. KNOWLEDGE AND ATTITUDES

500	If given the opportunity, would you be interested to go to school or work?	Schooling 1 Working 2 Don't know 3	
501	Do you like your current work?	Yes 1 No 2	→ 503
502	If yes, why?	Support family 1 Earn money for school 2 Earn money for food 3 Earn money for myself 4 Have fun working with friends 5 Others 9 specify	→ 504
503	If no, why not?	Work hazards take me sick 1 Can't go to school 2 Don't like this type of work 3 Too tired 4 Low income 5 Don't like employer/co-workers 6 Other 9 specify	
504	Do you agree that working as a child worker in mining is bad for your health?	Agree 1 Disagree 2	
505	Do you know what is the minimum age at which the children can work?	Age 1 ☐☐ Don't know 9	
506	Do you know what is the minimum age at which the children can work in mining?	Age 1 ☐☐ Don't know 9	

CHECK: Question 505 and 506 don't know 508

507	From which do you know minimum age at which the children can work?	Parents 1 Brother/Sister 2 Grandparents 3 Friends 4 Co-workers 5 Lecturer/Teacher 6 Book/newsletter 7 Radio/TV 8 Others 9 specify	

508	Would you recommend this job to your sister/brother or friends?	Yes 1 No 2	
509	Will you work to continue this work?	Yes 1 No 2	→ 511
510	If yes, how long will you work?	Years 1 ☐☐ Months 2 ☐☐ Do not know/plan 9	
511	If no, what is your future plan? Please tick two priority responses. *Please rank these responses in the cell.*	To own basic education (Education of 8th grade) A ☐ To own completed secondary education B ☐ To own profession C ☐ To engage in activity with salary D ☐ To run a business E ☐ To herd livestock G ☐ Others X ☐ specify	
512	What would you like to do when you grow up?	specify	
513	Have any local government organizations approached you?	Yes 1 No 2	→ 515
514	What kind of assistance do they approach for you? *Circle all that apply*	To cover in a course to own education A To cover in a health course B To cover in a security course C To cover in a livelihod course D To advocate E Others X specify	
515	Have any NGOs approached you?	Yes 1 No 2	→ 517
516	What kind of assistance do they approach for you? *Circle all that apply*	To cover in a course to own education A To cover in a health course B To cover in a security course C To cover in a livelihod course D To advocate E Others X specify	
517	Did you participate in a research project such as this?	Never 1 One 2 More than one 3	

Thank you very much for your participation!

PARENT QUESTIONNAIRE

The answers to the questions will be kept confidential

SCREENING FORM

Aimag ☐

Soum ☐☐

Bag ☐☐

Respondent number ☐☐

Name of workplace ☐☐

Sample child number ☐☐☐

Mining type — Gold 1 Flourspur 2 ☐

Check: If gold mining — Hard rock 1 Placer mining 2 ☐

Relationship between child and respondent

- Father 1
- Mother 2
- Stepfather/Stepmother 3
- Brother/Sister 4
- Others 9 (specify)

Number of visits

First		Second		Third (last)	
Month	☐☐	Month	☐☐	Month	☐☐
Day	☐☐	Day	☐☐	Day	☐☐
Result*	☐	Result*	☐	Result*	☐

Total visits ☐

Interview Month ☐☐ Day ☐☐

Total number of people in the household ☐☐

Name of interviewer ☐

Name of field supervisor ☐

Edited by ☐

Data entered by ☐

PART 1. CHARACTERISTICS OF HOUSEHOLD MEMBERS

#	Please give all the names of your household members and people living together *(Start with the head of the household)*	What is the relationship of this person to head of household Head of household 1 Wife/husband 2 Son/daughter 3 Parents 4 Brother/Sister 5 Father/Mother in law 6 Son/daughter in law 7 Grandparents 8 Grandchildren 9 Other relatives 10 No any relation 11	Sex Male 1 Female 2	How old is (Name)? *(give age in completed years)*	Education *(7 and above years old)* What was (Name)'s the highest educational level attained? *No formal education:* *cannot read and write* 1 *can read and write* 2 Primary 3 Uncompleted secondary 4 Completed secondary 5 Vocational/Uncompleted high 6 Higher/Post graduate 7 Don't know 8	Employment *(6 and above years old)* What does (Name) do? Employed any occupation 1 Self-employed/Employer 2 Herder 3 Worker in the gold/flourspur mining 4 Student/Pupil 5 Retired 6 Disabled 7 Domestic worker/Helps in domestic work 8 Unemployed 9 Others 10 *specify*
(100)	(101)	(102)	(103)	(104)	(105)	(106)
01			1 2			*specify*
02			1 2			*specify*
03			1 2			*specify*
04			1 2			*specify*
05			1 2			*specify*
06			1 2			*specify*
07			1 2			*specify*
08			1 2			*specify*
09			1 2			*specify*
10			1 2			*specify*
11			1 2			*specify*
12			1 2			*specify*
13			1 2			*specify*
14			1 2			*specify*
15			1 2			*specify*

PART 2. CHARACTERISTICS OF HOUSEHOLD

No.	Questions	Codes	Steps
200	Respondent's line number	..... [ ][ ]	
201	Age of the respondent	..... [ ][ ]	
202	Sex	Male 1 Female 2	
203	What is your ethnic group?	..... [ ] *specify*	
204	What is your marital status?	Single 1 Married 2 Living together 3 Divorced 4 Separated 5 Widowed 6	
205	How long has your household been living in present place?	Temporary resident 1 Less than 5 years 2 5 or more years 3	→ 207 → 209
206	Did your household register in this soum?	Yes 1 No 2	
207	Where did your household move from?	Aimag/city ..... [ ][ ]	
208	What was the main reason of moving to the present place? *(Allow multiple responses)*	To improve income A To improve livelihood B To do business C To work in the gold/flourspur mining D Ecological conditions E To join relatives F Others X *specify*	
209	Do you want to move from the present place?	Yes 1 No 2	 → 212
210	What is the main reason to want to move from the present place? *(Allow multiple responses)*	To follow the gold/flourspur minin A To improve livelihood B To do business C Want to work D Think about children's future E To treatment F Ecological conditions G To join relatives H Others X *specify*	
211	After how long are you planning to move?	Not planned yet/DK 9 Month 1 [ ][ ][ ]	→ 213

No.	Questions	Codes	Steps
##	What is the main reason of not want to move from the present place?	To follow the gold/flourspur mining 1 Enjoy the place of residence 2 Improve life 3 Guaranteed work 4 Relatives live close by 5 Financial problem 6 Others disagreement 7 Health condition doesn't allow 8 Others 9 *specify*	
##	How much is the household's average income in a typical month? *(If receive goods, please convert into monetary terms-tugs)*	Wage/Salary Pension/Social allowances Cash remittance/present Rentals/interest revenue Business income Income from the gold/flourspur mining Income from agricultural production Others *(specify)* **Total income**	
##	How sufficient is this income to support your livelihood?	Sufficient 1 Moderate 2 Not sufficient 3	
##	Who earns the main share of income for the household?	Head of household 1 Spouse of head 2 The child working in gold/flourspur mining 3 Other children, grandchild, son/daughter-in-law 4 Father/mother, father in law/mother in law head of HH 5 Other relative 6 Others 9 *specify*	
##	Do all members of your family get enough food everyday?	Yes, throughout the year 1 Yes, some months of the year 2 No 3	
##	Do your household has any not working and before school age children (under age 8)?	Yes 1 No 2	→ 300
##	Do the child (children)'s parents working in the informal gold/flourspur mining?	Yes, only father 1 Yes, only mother 2 Yes, both 3 No 4	→ 300
##	Who looks after your child (children) when you and your wife (husband) go out for work?	Father/mother 1 Brother/sister 2 Grandmother/grandfather 3 Other relatives 4 Acquaintance/neighbour 5 Kindergarten 6 Follow with 7 Neither 8	
##	How many time prepares tea, snacks and meals per day when their parents go out for work? *(included tea break)*	DK 9 1 ☐	

PART 3. LIVING CONDITIONS and ACCESS TO SOCIAL SERVICES

No.	Questions	Codes	Steps
300	Type of living quarters?	Ger 1 House 2 Public dormitory 3 Tent/Hovel/Hut 4 Others 9 *specify*	
301	Is this your own dwelling?	Yes 1 No: Free Employer 2 Free Relatives/Friends 3 Rented 4 Others 9 *specify*	
302	Does your household share dwelling with others?	Yes 1 No 2	
303	How would you rate the quality of this housing objectively (keep in mind space, privacy, roofs, walls etc)?	Poor 1 Fair 2 Good 3	
304	Does your household have own livestock?	Yes 1 No 2	→ 306
305	How many livestock or other animals does your household have? *(If no enter "0")*	Sheep ____ Goat ____ Cow ____ Horse ____ Camel ____ Other ____ *specify*	
306	Does your household have any of the following assets?	Yes / No TV 1 2 Radio 1 2 Refrigerator 1 2 Car/Motorcycle 1 2 Power generator 1 2 Agricultural equipment 1 2 Valuables 1 2 Others 1 2 *specify*	
307	What is the main source of drinking water?	Well: Protected 1 Unprotected 2 Creek/Stream 3 River/Lake 4 Others 5 *specify*	
308	What is the main source of fuel for cooking?	Electicity 1 Gas 2 Wood 3 Coal 4 Dung 5 Others 9 *specify*	

No.	Questions	Codes	Steps
309	What hospital/whom do your household members usually go for a visit if they are ill?	No access to medical centers 1 Don't go to medical centers 2 Pharmacies 3 Health center 4 Hospital 5 Others 9 *specify*	
310	Does your household have any access to the following social/community safety nets?	Yes / No Micro credit 1 2 Educatin program 1 2 Project/Prog. on Employment promotion 1 2 Agricultural project/program 1 2 Others 1 2	
	PART 4. PARENTS' OPINION ABOUT THE WORKING CONDITIONS OF THEIR CHILD		
400	Does your child living with parents?	Yes 1 No 2	→ 403
401	Where does she/he live?	Employers house 1 Relatives/friensd's house 2 Together with colleagues 3 Others 9 *specify*	
402	How often does your child visiting home?	Never come 1 Everyday 2 2-3 days per week 3 Weekly (once per 4-7 days) 4 Half month (once per 8-14 days) 5 Month (once per 15-45 days) 6 Season (once per 2-3 months) 7 Half year (once per 4-6 months) 8 Year (once per 7-12 months) 9 More than one year 10	
403	Are you happy with your children working?	Yes 1 No 2	→ 406
404	If yes why? *(Allow multiple responses)*	It helps the family A Parent have some debts B Child will learn work experience/become independent C Child earns money for his/her education D Child gets a meal there E Child doesn't study, so it's better for him to work F Parents are not interested in sending child to school G Working conditions are not bad/not abusive H Others X *specify*	→ 407
405	If no, why? *(Allow multiple responses)*	Child should attend school A Wages are low B Bad for child's health C Abuses faced by child D Bad for studies E Working conditions are bad F Others X *specify*	
406	How long does your child work per day?	Don't know 98 ☐☐	

No.	Questions	Codes	Steps
407	How many days a week does your child work?	Don't know 98 ☐	
408	Do you think that drinking water, food and get for rest are available during his/her work?	Yes / No / Don't know Drinking water 1 2 3 Food 1 2 3 Get to rest 1 2 3	
409	How, in your opinion, is your child's working condition?	Very poor Poor Somewhat good	→ 411
410	Why do you think, your child's working condition is poor or very poor? *(Allow multiple responses)*	Inadequate light A Too dusty B Poor sanitary C Too cold/too hot D No ventilation/heat E Noise F Too humid G Long hours of work H Hazardous I Carrying heavy loads J Exposure to chemicals K Others X *specify*	
411	How tired is the child due to work?	Very tried 1 Moderate tried 2 Not very tried 3 Do not know/Do not observe 4	
412	Do you think the wages (monetary and non-monetary) received by child are sufficient?	Low 1 Moderate 2 High 3	
413	What do you think of the health risks which may be faced by child due to work?	No risk 1 Low risk 2 Moderate risk 3 High risk 4	
414	Do you think that the current working situation of your child is acceptable?	Yes 1 No 2 Don't know 3	
415	What conditions would allow the child to stop working?	Enough income for family 1 Enough money for child's education 2 Enough land for farming/or enough livestock 3 Enough money for medical/health care 4 Schools closer to home/workplace 5 Better quality schools 6 If child wants to stop working 7 Others 9 *specify*	

PART 5. PARENTS' OPINION ABOUT THEIR CHILD'S EDUCATION			
No.	**Questions**	**Codes**	**Steps**
500	Is your working child currently attending school?	Yes, formal school 1 Yes, informal school 2 No 3	
501	Would you stop the child's working if they wanted to go to school/to continue with schooling?	Yes 1 No 2	
502	What level of education do you want your working child to have?	Education is not necessary 1 Primary 2 Incompleted secondary 3 Completed secondary 4 Technical/vocational training 5 Higher 6	→ End
503	What kind of training/informal education do you want your child to have, if you think that formal schooling is not necessary?	..... *specify*	

Thank you very much for your responses!

EMPLOYER'S QUESTIONNAIRE

The answers to the questions will be kept cinfidential

SCREENING FORM

Aimag ☐

Soum ☐☐

Bag ☐☐

Respondent number (Name of the child worker) ☐☐

Name of the mining place ☐☐

Mining type Gold 1 Fluorspar 2 ☐

Check: If cold mining Hard rock 1 Placer mining 2 ☐

Number of sample unit ☐☐☐☐

Interview Month ☐☐ **Day** ☐☐

Total number of children who work for the employer ☐☐

Name of interviewer ☐

Name of field supervisor ☐

Edited by ☐

Data entered by ☐

PART 1. BACKGRAUND CHARACTERISTICS OF THE EMPLOYER

No.	Questions	Code	Steps
100	How old are you?	(Age in completed years)	
101	Sex of the employer	Male 1 Female 2	
102	Etnicity of the employer	Khalkh 1 Kazak 2 Byriad 3 Others 9	
103	What is the ownership status of this establishment?	Used allready/usefulness 1 Company 2 Don't have any ownership 3 Others 9 *specify*	
104	How long have been work on mining sector?	Years 1 Months 2	
105	How many persons are working in your establishment?	Total number of persons Out of them Male Female	
106	How many are unpaid family workers?	Total number of family workers 1 Out of them Male 2 Female 3 Children aged 5-17 4	
107	How many are in the age-group 5-14?	Total number of children aged 5-14 1 Out of them Male 2 Female 3 Total number of children aged 15-17 4 Out of them Male 5 Female 6	

PART 2. INFORMATION RELATED TO CHILD WORKER

200	Whether type of work done is skilled?	Yes 1 No 2	→ 202
201	If yes, could you please discribe the age and sex of child?	Total number of children aged 5-14 1 Out of them Male 2 Female 3 Total number of children aged 15-17 4 Out of them Male 5 Female 6	

202	How did you recruit child workers?	Friends referred him/her A Relatives referred him/her B Other workers referred him/her C He/she came on his/her own D Him/her parents are referred him/her E Others X *specify*	
203	How many hours do the children work in a day approximately?	Hours per day ☐☐	
204	How many days do the children work in a week approximately?	Days per week ☐☐	
205	What season do children work?	Summer A Autumn B Spring C Winter D	

Check: More than one children wotk for employer No 2 → 207

Yes 1 ☐

206	Are the total working hours per week for children different from	Yes 1 No 2	

207 What to do children?

(Specify by sex of child)

	Male			Female		
	Yes	No	NA	Yes	No	NA
Digging a hole/soil	1	2	3	1	2	3
Carrying water/soil	1	2	3	1	2	3
Sifting soil	1	2	3	1	2	3
Transporting ore/soil	1	2	3	1	2	3
Crushing ore/stone/fluorspar	1	2	3	1	2	3
Panning gold	1	2	3	1	2	3
Digging mercury	1	2	3	1	2	3
Amalgamating with mercury	1	2	3	1	2	3
Cubing fluorspar	1	2	3	1	2	3
Drilling stone	1	2	3	1	2	3
Working on compressor and knotted rope for simple hauling	1	2	3	1	2	3
Explosive	1	2	3	1	2	3
Sluicing	1	2	3	1	2	3
Others	1	2	3	1	2	3

specify

208	Do you give any break at work for children?	Yes 1 No 2	→ 210
209	If yes, how long is the total time for break?	Minutes ☐☐	
210	Do you pay to her/him?	Yes, in cash and by kind 1 Only in cash 2 Only by kind 3 Nothing 4	→ 212 → 213

211 How much do you pay per month per child worker on an average in cash?

(in tugrugs)

	Have	Haven't	
boy aged 5-14	1	9	☐☐☐☐☐
girl aged 5-14	1	9	☐☐☐☐☐
boy aged 15-17	1	9	☐☐☐☐☐
girl aged 15-17	1	9	☐☐☐☐☐

Chick: If pay to her/him both in cash and by kind :Q210=1 **No 2** →

213

Yes 2↓

212	What are the kinds that you give to child workers apart from the wage in cash?	Assist with tuition fees A Buy textbooks etc. for schooling B Provide food and lodging C Provide clothes D Others X *specify*	
213	What tasks are performed by the children?	**Children aged 5-14**	

	Male		Femal	
	Yes	No	Yes	No
Cooking	1	2	1	2
Washing dishes	1	2	1	2
Cleaning house	1	2	1	2
Carrying water/prepare the wood	1	2	1	2
Others	1	2	1	2

specify

Children aged 15-17

	Male		Femal	
	Yes	No	Yes	No
Cooking	1	2	1	2
Washing dishes	1	2	1	2
Cleaning house	1	2	1	2
Carrying water/prepare the wood	1	2	1	2
Others	1	2	1	2

specify

214	Did you make verbal or written agreement with child/children?	Didn't make any agreement 1 Made written agreement 2 Made verbal agreement 3	
215	What sort of difficult working conditions do they face?	None A Don't know B Inadequate light C Dust D Sun and heat E Noise F Carrying heavy loads G Exposure to chemicals H Others X *specify*	
216	Do you fase any difficult with child workers?	None A To lost working time because of she/he sick/etc. B To hurt C To theft D Others X *specify*	
217	What type of health problems do you think they might develop from this type of work?	None A Don't know B Back pain C Respiratory illness D Deafness E Burns F Cuts G Others X *specify*	

218	Do you provide your workers some kind of protection for they working?	Yes 1 No 2 Not required 3	→ 220
219	If yes, what sort of protection do you provide with them?	Gloves A Boots B Mask C Hat D Others X *specify*	
220	What do you do when a child is sick?	Nothing A Give him/her medicines B Take him/her to see a doctor C Give hem/her time off D Substitute him/her E The child has never been sick F Others X *specify*	
221	Would you give the child time off to go to school?	Yes 1 No 2 Child is not going to school 3	→ 223
222	If child is not going to school, what is its reasons?	Child would be too tired to work A Child does not have specified spare time B Child may be misguided by others C Others X *specify*	
223	What are the advantages of employing child workers?	Nothing A They are less expensive B They are easier to deal with C Others X *specify*	
224	What is tha appropriate age for recruiting a child? (years)	Appropriate age ☐☐ (in completed years)	
225	Are you aware that it is illegal to employ children?	Yes 1 No 2	

Thank you very much for your participation!

No.	Questions	Codes	Steps
206	Have you been involved in gold mining in other aimag/soum before you come to this soum?	Yes 1 No 2	
207	Do you want to move somewhere else?	Yes 1 No 2	→ 209b
208	When are you planning to move?	Months 1 ☐☐ Don't know/unplaned 9	
209a	What are the reasons for planning to move?	To join gold/fluorspar A To improve living condition B To be close to the market C To work in gold/fluorspar mining D Bad ecological condition E To join relatives F To follow family/relatives/friends G Others X *specify*	→ 300
209b	What are the reasons for unwant to move?	Join gold/fluorspar 1 Enjoy the place 2 Improve life 3 Guaranteed work 4 Most relatives close by 5 Do not have financial opportunity 6 Parent do not give permission 7 Health problem 8 Others 9 *specify*	
PART III. LIVING CONDITIONS			
300	Where do you live mostly?	Mining area 1 Soum center 2 Other aimag/city/soum 3	
301	Where does your family live mostly?	Mining area 1 Soum center 2 Other aimag/city/soum 3	
302	How far is your famliy live from the place of mining?	Don't know 98 km ☐☐☐	
303	What kind of services/access in your working/living area? *(Circle all that apply)*	Retail shopping A Personal services B Transport services C Fuel supplies D Medical services E Repair/Equipment rental services F No services/access G Others X *specify*	
304	What is the main source of drinking water?	Protected well 1 Unprotected well 2 Spring/river 3 Back water 4 Others 5 *specify*	

PART IV. WORK ARRANGEMENT			
400	How long have you been working in mining?	Months ☐☐	
401	Do you engage in other work than mining?	Yes 1 No 2	→ 403
402	If yes, where do you work?	Government organization 1 State owned organization 2 Private organization 3 Herders 4 Self employed 5 Others 9 *specify*	
403	Do your family provide any other services in this ninja settlement area?	Yes 1 No 2	→ 405
404	If yes, what kind of services? *(Circle all that apply)*	Retail shopping A Personal services B Transport services C Medical services D Repair/Equipment rental services E Others X *specify*	
405	How many people do you work together with?	Number ☐☐	
406	Whom do you usually work with? *(Circle all that apply)*	Myself alone A Family members B Relatives C Friends D Acquaintances E Other X *specify*	
PART V. WORKING CONDITIONS			
501	Do you work mostly in this place?	Whole year 1 Seasonally 2 Only on holidays/vocations 3 Occasionally 4 Other 9 *specify*	
502	How many days did you work in the last week?	Days ☐☐	
503	How many hours did you work in a day last week?	Hours ☐☐	
504	Do you have a holiday when you work?	Yes 1 No 2	
505	Do you witness any conflict between ninjas and police or security forces?	Always 1 Sometimes 2 Seldom 3 Never 4 Don't know 5	
506	Do you witness any conflict between ninjas?	Always 1 Sometimes 2 Seldom 3 Never 4 Don't know 5	
507	Have you ever faced any violence and abuse at work?	Yes 1 No 2	→ 510

No.	Questions	Codes	Steps
508	If any, from whom? *(Circle all that apply)*	Family members/relatives A Local people B Police officers C Security guards D Other ninjas E Governors F Others X *specify*	
509	What kind of violence and abuse do you face? *(Circle all that apply)*	Verbal abuse A Seriously beaten B Pillaged C Asked money D Forced to work for them E Do not allow to work F Don't give meal/give less meal G Sexual abuse H Others X *specify*	
510	Have you ever faced health problems while you engaged in mining?	Yes 1 No 2	→ 512
511	If yes, what kind of health problem? *(Circle all that apply)*	Respiratory diseases A Articular and muscular diseases B Dermatological diseases C Ear, nose and throat problems D Kidney and urinary tract diseases E Heart-vessel diseases F Fatigue G Others X *specify*	
512	Who/where do you go when you face health problems? *(Circle all that apply)*	Pharmacy A A doctor/hospital B Care centers C Family/Relatives/friends D Traditional healer E Self treatment F No one/no where G Don't need to get treatment H Other X *specify*	
513	Do you have health insurance?	Have, and paid insurance 1 Have, but not paid insurance 2 Have not 3	
514	How often do you use alcoholic drinks?	Everyday 1 Sometimes 2 Never 3	
515	How, in your opinion, is your working condition?	Very poor 1 Poor 2 Somewhat good 3	→ 518
516	Why do you think, your working condition is poor or very poor? *(Circle all that apply)*	Too dusty A Poor sanitary B Work mostly outside (too cold/too hot) C No ventilation D Too humid E Long hours of work F Hazardous G Others X *specify*	

PART V. OCCUPATIONAL SAFETY AND WORKING CONDITION

517	Do you know about safety and health standards/requirements?	Yes, follow them 1 Yes, not follow them 2 Do not know 3 Do not much bother about it 4	
518	Have you ever recieve any training/information on OSH?	Yes 1 No 2	→ 520
519	If yes, who provided? *(Circle all that apply)*	Previously worked mining company A Labour Regulation Office B Project/programme Implementing organisation C Relatives/Friends D Environmental NGOs E Local Government F Others X *specify*	
520	Do use the following personal protection equipments in mining and processing?	Always / Sometimes / No Rubber waterproof boots 1 2 3 Cloth industrial gloves 1 2 3 Head covering 1 2 3 Red rubber household gloves 1 2 3 Leather boots 1 2 3 Strong belt 1 2 3 Footholds in shaft walls 1 2 3 Face mask 1 2 3 Earplugs 1 2 3 Cowl 1 2 3 Ventilator 1 2 3 Others 1 2 3 *specify*	
521	Have you ever faced any accident at work?	Yes 1 No 2	→ 600
522	If any, what kind of accident? *(Circle all that apply)*	Tunnel and shaft collapses A Roof falls B Falling to holes C Fire D Dangerous gases E Pestle & mortar or milling machine accidents F Electric shock G Others X *specify*	
523	What injuries did you get? *(Circle all that apply)*	Eye damages A Broken legs and arms B Lost legs and arms C Broken head D Became deaf E Burned F Suffocated G Faint H Back injury I No injuries J Others X *specify*	
524	Once accident happen to whom do you report?	Local Governor A Insurance company B Trade Union C Doctor/hospital D Social/Religious organisation E No one F Others X *specify*	

PART VI. INCOME AND PRODUCTIVITY			
600	How many gramm gold/kl fluorspar do you get in a typical week?	Gold gramm 1 ☐☐☐ Fluorspar kg 2 ☐☐☐	
601	What is your form of selling gold? *(Circle all that apply)*	Money 1 Non-money products 2 Both form 3	
602	How much is your average monthly income from producing/selling gold?	Tg ☐☐☐☐☐☐	
603	Do you pay any tax/fee from your income?	Yes 1 No 2	
PART VII. PERCEPTION ABOUT CHILDREN			
700	How many children under age of 18 are living with you currently?	Number of children ☐☐ No children →	710
701	Is your child involved in the mining activities any way?	Yes 1 No 2 →	703
702	What kind of work does he/she do? *(Circle all that apply)*	Digging a hole A Fetching water/soil B Crushing C Sluicing and panning E Amalgamating with mercury G Transporting ore I Drilling J Milling K Explosion L Extracting mercury M Others X *specify*	
703	Do your children do any other kind of work?	Yes 1 No 2 →	705a
704	If yes, what kind of work? *(Circle all that apply)*	Selling foods in ger shops A Selling foods in working area B Work in the game shop C Others X *specify*	
Check: If	**Q701=1** ↓	**Q701=2** →	**70**
705	Why do you take your children to mining work?	Cannot leave them alone 1 They want to stay with us 2 They like to work 3 They are working only on summer holidays 4 Others 5 *specify*	

No.	Questions	Codes	Steps
706	Do you consider your children better leave the mining work?	Yes 1 No 2	
707	Do any children drop-out school?	Yes 1 No 2	→ 709
708	If yes, why? *(Circle all that apply)*	Lack of money/resources A Domestic social problems B Lack of registration documents C School can't absorb D Far away to school E Bad quality education F Sick (physically or mentally) G Lack of interest in schooling H Graduated I Others X *specify*	
	Check! ***If Q 302=2 than***		→ 710
709	What is your future aspiration on your children? *(Circle all that apply)*	Want them to get basic education A Want them to get professional education B Want them to get other work than mining C Do not know D Others X *specify*	
710	What kind of activities should be done for the children working in mining? *(Circle all that apply)*	Create day care centers A Training for school drop-out children B Create health care units C Others X *specify*	
PART VIII. PERCEPTION ON FUTURE			
800	Would you like to continue to work in the mining?	Yes 1 No 2 Do not know 3	→ 802 → 803
801	How long do you intend to work in mining?	Can't say 9 Month 1 ☐☐	→ 803
802	If no, why?		
803	In your opinion, how to regulate informal gold mining?	Regulation Law 1 National programs/projects 2 Other s 9 *specify*	
804	In your opinion, what should be done in order to improve the situation of informal gold miners?	1 2 3	

Thank you very much for your kind cooperation!

Enumerator's name: ----------