

## 6 ISSUES AND RECOMMENDATIONS

### 6.1 Major Problems in the Study Areas

Major problems related to the creation of sustainable livelihoods for artisanal miners observed in the study areas can be summarized as follows.

- Decrease in resource base is a major problem affecting the livelihood of artisanal miners. For example, exhaustion of high grade and easily exploitable mineable placer gold deposits in Hayadima has become a serious problem. Thus, prospecting and exploration programmes should be planned and launched as soon as possible to determine the mining potentials.
- The great number of migrants to the area not only places severe pressure on natural resources, but also continually affects the depletion rate of the few left over placer gold deposits. The workable deposits per person/group have already reached a critical level.
- Environmental degradation has already become serious. Negative mining and processing management practices and deforestation continuously aggravate the situation.
- Illegal trading or smuggling of gold has reduced the foreign currency earning capacity and revenues of the government.
- The productivity of has been very low partly due to the terms of trade and low prices of the products which have not been particularly favorable to the artisanal miners.
- Population is also a factor that intensifies problems related to earnings. The proportion of the persons who are getting low income from artisanal mining activities is increasing as more and more migrants go to mining sites from various regions in the country and from neighboring countries creating a high pressure on the land as observed in Hayadima.
- The very rapid population increase has aggravated the problems related to lack of basic social services and made provision of such services more difficult.

- As the carrying capacity of the artisanal mine fields is pressurized and the reserves are being exhausted the need for taking appropriate poverty alleviation measures has become greater than ever before. One important measure is the balancing of population with carrying capacity of the land which makes a positive contribution towards the growth of output and income.

The mineral wealth is one of the most important non-renewable natural resources or assets of the country. Hence, careful exploitation and conservation of the mineral wealth is of prime importance. The mining activities in the study areas both by artisanal and mechanized mining operators have been inefficient in terms of proper mineral utilization and conservation.

The artisanal mining activities in the country in general and in the two study areas in particular, have not yet reached a stage whereby they can provide sustainable livelihoods. However, there are indications that they have potentials for being economically viable making important contributions towards the creation of sustainable livelihoods. Hence the following points can be noted:

- Qualitative aspects of natural resources, despite past abuses, are still promising. Resource degradation is serious but not as severe as in small and large-scale operation.
- Artisanal miners are aware of the depletion of minerals and the causes. With proper development assistance and incentives, they will be able to change the course of events for the better.
- Availability of mining operation oriented workforce with fair exposure to the mining technology add to the potentials of the sector.
- Expected participation of the private investor, due to policy changes which have been recently introduced, help to increase the pace of growth of mining activities in particular artisanal mining.
- There is a need for the development of practical and affordable technological packages which will enhance output.

## 6.2 Recommendations

### 6.2.1 Possible Options

#### a) Hayadima

To increase the sustainability of livelihood in artisanal mining, options should be considered in relation with the types of artisanal miners consisting of the indigenous local people, and migrants who are long time residents and the recent migrants as defined earlier in the report.

- i. Options for the indigenous local people and migrants who are long time residents constituting the sedentary population.
  - Improvement of methods of production and productivity where they are situated now through:
    - Education and training;
    - Provision of better tools and improved methods as well as management skills;
    - Financial support by providing credit facilities;
    - Infrastructural development which includes road construction, supply of water for human consumption as well production purposes and electricity;
    - Expansion of health services;
    - Increase of safety and health measures;
    - Improvement of environmental and other conditions.
  - Diversifying activities though detailed studies to identify possibilities of involvement in off mine work in any of the following areas:
    - Agriculture specializing in fields like coffee planting, sugar cane production, poultry farming, horticulture, apiary, cattle rearing or fattening;
    - Forestry-planting or conservation;
    - Handicrafts such as bamboo crafting and pottery;
    - Trading in gold, agricultural products, food stuff, clothing , etc.;

- ii. Options for recent migrants (those who migrated after 1991) who may be identified as excess work force
- Deployment to places and occupations which may be identified as prospective for providing productive employment and improved livelihood. This requires a thorough study of the capability and desires of the migrants as well as opportunities in other localities preferably in adjacent ones with potential. Here again alternative sources of employment and income should be considered in mining and off mine activities like agriculture, natural resource conservation, handicrafts, trade, etc as in the case of the sedentary population;
  - However, to prevent further problems arising from continuous migration, it is considered necessary to find a means of regulating or discouraging future inflow of migrants from other areas

#### **b) Senkelle**

With regard to expansion of livelihood in Senkelle study area the following options can be considered.

- i. Increase the quality of sandstones / dimension stones produced on the site by introducing semi - mechanized machines for cutting, splitting and polishing in order to make the products more marketable and profitable. This process is expected to create greater value added and employment opportunities. It may also help to avoid wastage and improve the utilization as well as conservation of the sand stone reserves/ resources.
- ii. Develop off-mine activities such as farming through irrigation including plantation of grape vines, vegetables, dairying and cattle rearing.
- iii. Develop activities in other mining areas like gypsum (*stucco*) for plastering, clay for bricks and roof -tiles manufacturing, limestone for lime, etc after prospecting, exploration and other studies up to development phase for potential deposits.

### 6.2.2 Policy Issues

In order to contribute to the effort of poverty reduction, the macro policy should address the following issues:

- a) Due importance or adequate consideration should be given to artisanal mining in the framework of policy, strategy and programmes formulation.
- b) Institutional support and services must be created in order to cater to the needs of the sector and make it more productive so that its contribution to poverty alleviation is enhanced.
- c) Providing health, educational, and skill development facilities in artisanal mining sites helps enhance capabilities to increase income and consumption.
- d) Promoting good governance in artisanal mining areas like anywhere else in the country will undoubtedly help to get rid of gender gaps and powerlessness. It also assists in the promotion of full and productive utilization of human resources.
- e) In order to reduce extreme poverty a sustained economic growth is important. But high aggregate growth alone cannot be sufficient to reduce poverty and break the vicious spiral process of under development that persisted for a long time. A broad based growth with equitable income distribution is necessary. Broad based growth in the Ethiopian context entails agriculture led growth that aims at:
  - Employment and rural development
  - Coherent and consistent macro and structural policies for the promotion of economic efficiency and growth.
  - Setting up on conducive institutional environment for good governance and empowerment and
  - Institutional and productive capacity building.
- f) Another important policy issue is strengthening the livelihood of artisanal miners as much as possible where they are.
- g) The natural resource should be protected in the process of making the artisanal miners effective in production.

## 6.3 Strategies

### 6.3.1 Promoting Investment

All measures often recommended for alleviating socio-economic problems require financial support. But the absence of any institution providing loans to artisanal miners or lack of investors who may be involved in providing support services is a major constraint to improvement of the livelihood of persons engaged in artisanal mining activities.

The government should, therefore, attract investors to activities in and around artisanal mining. For instance, the private sector can be encouraged to engage in the production and distribution of production tools. This may as well be embarked upon by providing loans/credit facilities for giving capacity to such producers. Gold smiths who would like to involve in the purchasing of gold for making jewelry should be encouraged so that their products may be competitive in international markets and provide value added. They must be provided with funds and training to reduce the technological and managerial constraints. This will also increase their capacity to pay better prices for the gold produced by artisanal miners and enable them to gear the commodity to the domestic market.

### 6.3.2 Creating New Areas of Productive Employment

Artisanal miners lack skills needed for increasing their productivity. Whatever know-how they have acquired from their exposure to the activities in the sector is hardly transferable to other areas of production. However, new areas of employment can be created for them in labor-intensive works. They can be assisted to find employment in other fields of activity which can provide sustainable livelihood if properly organized. However, availability of suitable land to be devoted to this purpose should be ascertained first.

Both study areas, Hayadima and Senkelle, are affected by disturbance of various types of land use and seasonal drying up of streams resulting in shortage of water for both human and animal use. There is a need to give attention to natural resource conservation and

development as well as agricultural development adequately emphasizing animal husbandry which is related to the day to day life of the highland inhabitants and the main means of living in pastoral societies, credit facilities, marketing and basic services.

Soil and water conservation and afforestation programmes should provide employment opportunities. Afforestation and reforestation programmes involving seedling production, micro basin construction, pitting and re-pitting are envisaged activities which can be carried out in drought prone areas or those affected by environmental degradation. Infrastructure development embracing improvement of access road network and potable water supply is another strategy for employment and income generation.

Development of small-scale agro-industries which are geared to processing agricultural produce can play an important role in generating employment opportunities and income. Employment generation schemes related to small-scale mining such as brick making which includes making bricks for roofing of houses are some of the activities that deserve emphasis in relation with employment generation and poverty reduction.

Employment generation efforts have to be strengthened by credit facilities, and strong marketing and basic services in order to ensure sustainable livelihood. Artisanal miners should be organized into groups or co-operative societies in order to improve their productive and purchasing power.

Co-operatives can help reduce cost of goods and service for production as well as consumption, minimize the individual impacts of risks and uncertainties, spread technical knowledge and reduce the cost of credit. It is worth noting here that the past failure in organizing mining co-operatives was for well-known reasons (fraud, misappropriation and mismanagement of resources by members and officials) which can be averted or at least minimized in a new attempt. The recently created mechanism to fight also make contributions towards fighting these evils. Moreover, a broad based sensitization programme about the objectives, uses and management of co-operatives will build the confidence of communities.

Micro finance institutions will help the artisanal mining communities to overcome financial problems. In this connection the emphasis given to micro finance projects targeted to women is worth mentioning. Women in this sector as well as in others are confronted with serious problems of livelihood. They should be actively encouraged to participate in such credit schemes. The collaboration of the Development Bank of Ethiopia (DBE), local micro-financing institutions, donors and NGOs is necessary for the success of the programme.

Provision of potable water in artisanal mining areas has a major impact on reducing women's workload, water borne diseases and diseases associated with inadequate sanitation and hygiene practices. Establishment of such schemes is also expected to generate employment apart from providing essential services for improving the livelihood of communities.

Human capacity building projects involve education and training. Apart from increasing access to relevant salable skills to adults, it provides means of employment or self-employment and increase access of females to skill training thereby improving their employability and income earning capacity.

### **6.3.3 Choosing Appropriate Technologies**

Choice of appropriate technology is a strategy which helps to enhance production and create sustainable livelihood in diversified activities.

- Development of training and information programmes which are geared to the sector.

It is important to identify the training needs for the sector and create support programmes accordingly. Building the capacity of data collection and exchange

of information with regard to human resources and employment services is of great importance in this respect.

- Priority should be given to some segments of society which are vital for increasing labor productivity and distributing the benefits of development equitably. For instance, women deserve priority in education, training employment and decision making not only because they are numerically very significant but also because they are considered to be pillars of support to their families or in come distribution to their households.

The youth constitute another segment of society which is the prospective work force to be prepared for full and productive employment. Thus they have to be helped to attain self-employment as well as paid employment, or get organized, training and counseling services, credit facilities and land.

Adequate attention should also be given to assistance to displaced workers in their search for suitable employment.

As a whole the strategy should envisaged is providing assistance and support in varied ways including:

- Creating an enabling legal framework
- Streamlining a regulatory framework and conditions.
- Access to finance
- Incentive schemes
- Encouragement of partnerships and cooperation through co-operative societies and
- Training in entrepreneurship skills and managements.

Appropriate Institutional framework should be created under the auspices of the MOM and BOMs implementing the strategy satisfactorily. The macro level framework should be responsible for formulation of overall policies and strategies and conducting

appropriate training for trainers while at the regional (meso) and lower (micro) levels needs should be identified and measures taken in order to speed up the improvement of livelihood in the sector. Forums should be established for discussing problems or issues concerning more than one regional state and recommending solutions. Skill upgrading, and establishment of technical and demonstration centers in concerned regions should be encouraged. The institutional framework or units to be organized should also focus on dissemination of developed prototypes, and information as well as creation of basic services. In doing so it must seek to enlist the co-operation of stakeholders.

#### **6.3.4 Establishing Appropriate Environmental, Health and Safety Standards**

Mining activities may be viewed positively in terms of socio-economic development, however, the serious impact they have on the ecology and health of the population should be given appropriate attention. Although the mineral sector in the target area remains undeveloped, the little that exists of mining operations in the region is generally becoming a cause for concern regarding land degradation, deforestation, pollution of surface and ground water; health problems and hazards to workers at quarrying sites and to surrounding populations.

The problem is compounded by the absence of environmental policies, laws and regulations as well as the use of inappropriate and environmentally unfriendly mining technologies.

Since there are no environmental guidelines and standards either at the federal or the regional level at present, it is not possible to know the environmental impacts of the mining activity and whether they comply with established standards.

Existing mining practices both by artisanal and mechanized mining/ quarrying methods are inefficient in terms both of utilization and conservation. Since mineral resources are non-renewable, every effort should be made for their rational exploitation in order to

ensure their sustainability. This points to the need for an efficient exploitation of mineral resources and the need for policies and strategies.

Over and above federal laws and guidelines, region- specific environmental policies, laws and regulations and appropriate institutional arrangements need to be put in place for a comprehensive environmental protection.

Therefore, in order to evaluate the severity of the impacts and take corrective measures, appropriate environmental, health and safety standards need to be set up and procedures established. Although no guidelines or standards are available at present, they can be adopted from international standards taking into account specific local conditions.

## 6.4 Short and Medium Term Actions (1 –5 years)

### 6.4.1 Income and Employment Generation

This covers saving and credit schemes, skills training and institutional income generation.

- Savings and credit: - Community members will be organized into savings and credit groups. They will be provided with technical and seed money support which gradually phases out as beneficiaries develop sustainability.
- Skills training: Training programmes will be designed and implemented in order to equip the artisanal miners with marketable skills or skills which can help them improve their output or enable them to be involved in alternative activities for self-reliance. Appropriate skills need be identified and linked to the training requirements of the artisanal miners as well as the savings and credit schemes to enable beneficiaries to start their own micro business.

### 6.4.2 Expansion of Basic Services

The action programme should include health services, nutrition, childcare, health education, HIV/AIDS prevention and control, education, housing, and infrastructure

development. Health service programmes should be formulated and implemented. Nutrition programmes should target children under five. The objective of health education is to bring attitudinal change for better hygiene, nutrition, and preventive health while HIV/AIDS prevention and control programmes have to include education or sensitization about the dangers of AIDS, providing counseling services to victims and support for AIDS patients and orphans. Establishment of community based institutions and is also part of the recommended measures.

Activities in the area of education aim at increasing access to formal and non-formal education. This should cover school construction, provision of staff as well as materials at different levels, non-formal adult education, and evening classes for those who go to work during the day.

- In the area of housing improvement of the dwelling or camps include the construction of latrines and method of garbage disposed.
- With regard to infrastructure programmes should aim at making mining sites/villages accessible and providing them with communal water points where safe water is available at reasonable prices.

#### **6.4.3 Expansion of the Participation of Ethiopian Gold Smiths in Gold Trade**

Expansion of the participation of Ethiopian gold smiths in gold trade in order to retain a higher proportion of benefits of artisanal gold mining in the country.

#### **6.4.4 Determining Alternative Sources of Employment and Income**

Determining alternative sources of employment and income for making livelihood of the artisanal miners sustainable particularly for the excess labor force in mining areas like Hayadima.

### **6.4.5 Community Development**

With respect to community development organizing community groups and awareness creation through advocacy and civic education are recommended.

### **6.4.6 Studies and Surveys**

The following activities are proposed with regard to studies and surveys which help to determine short-, medium- and long-term poverty alleviation measures.

- Geological surveys for determining the mining potentials of existing sites and for locating new ones. This also helps to assess the employment generation capacity of the sector.
- Research work for improving methods of production.
- Study on the composition, the capacity to work and interest of artisanal miners.

## **6.5 Roles of Stakeholders**

The stakeholders in the development of the livelihood of artisanal mining communities are several and diverse. The multifarious or multifaceted problems which the issue involves require multidisciplinary approach as a priority strategy so that all concerned sectors may make relevant contributions. An appropriate mechanism must, therefore, be put in place to ensure a concerted action through a multidisciplinary approach, coordination and partnership. To this end, the following mechanisms are proposed:

### **6.5.1 At Federal Level**

At the Federal level, a forum comprising representatives of institutions that are concerned in the improvement of the livelihood of artisanal mining communities need to be formed. The focal point must be the Ministry of Mines, with the Minister as the chairperson of the forum. The tasks of the forum must focus on the framing of overall policies and strategies. The following “Partnership Forum” members are recommended along with their roles.

- a) Ministry of Mines shall be the focal point or the prime mover of the task of formulating policies and programmes as prescribed to it by law;
- b) The Ministry of Agriculture is expected to make contributions in providing means of generating employment in agriculture and related fields as well as protection of the environment;
- c) The Ministry of Education (MoE) must assume responsibility in the development of educational and training programmes along with the means of implementation;
- d) The Ministry of Health (MoH) has an important role in the development of health services;
- e) The Ministry of Trade and Industry (MoTI) may also be drawn into partnership with a view to creating livelihood options in the industrial and trade sectors;
- f) The Ministry of Finance and economic Development (MoFED) in which the Secretariat of the PRSP is placed also has a stake in the improvement of livelihood of artisanal miners;
- g) The Ministry of Labor and Social Affairs (MoLSA) which is responsible for labor administration including employment promotion, social welfare, occupational safety and health is also concerned institution;
- h) The Cooperative Development Commission is an important stakeholder in as much as it is responsible for organizing and supporting cooperatives in various economic fields including artisanal mining;

### **6.5.2 Regional, Woreda and Kebele Levels**

Similar “Partnership Forums” need to be established at Regional and Woreda levels. It must be noted that at the Kebele level such a partnership forum should include CBOs. The forum at all levels will, among other things, serve as platforms to discuss and address problems, constraints and achievements related to the development of livelihood in artisanal mining. They may also be used to mobilize and distribute resources. Detailed

duties, responsibilities and working guidelines for the forums at different levels will have to be formulated by the respective bodies.

### **6.5.3 NGOs**

NGOs are so far involved and have potential interest in poverty reduction. Therefore, their being represented in the forum is desirable.

### **6.5.4 The Private Sector**

The private sector must also be involved through its representative institutions, e.g., the Chamber of Commerce of Ethiopia.

### **6.5.5 Donors**

There is no doubt that the role played by donors (UN agencies, Inter-Governmental Organizations, etc.) in capacity building is of paramount importance. Their participation in the formulation of programmes is essential.

## ANNEXES

### **Annex 1.A Terms of Reference (TOR)**

1. Select two representative artisanal mining communities in both Adola in Borena for gold, and Ambo in West Shewa, for non-metallic material. Both sites fall in the Oromia region. Both are accessible for Addis Ababa, and for which information is available. It is recommended that the sites be selected on the basis of community support activities by governmental institutions or civil society organizations.
2. Prepare the PRA case study interventions to obtain a community-based (grass roots) information on the existing practices and livelihoods in the village, and their community, including their complementary subsistence activities. The methodology of this qualitative participatory survey/appraisal is based on the identification of focus groups and implies an easy access to the communities for trust building. The researchers are expected to have a good understanding of the Sustainable Livelihoods Approach, the methodology guidelines participatory appraisal methods and a clear work plan. The work plan should include a clear process on how to access the communities, including preliminary contacts with organizations working with the communities, identification of entry points, etc. Prior to the surveys, a synthetic document should be prepared for each group of surveyors. This document needs to include available information on the populations as well as their livelihood activities and will be made available to the monitoring committee as well as UNDP and UN/DESA.
3. Implement the appraisal/surveys. Contact, seek and obtain inputs from the key artisanal mining representatives and stakeholders (government, donor agencies, mining companies, NGOs, community-based organizations active in mining communities). Four days should be necessary for each community/site in order to carry out the above tasks.
4. Contact local authorities, at the various levels of government (district zone and regional state). The researchers should seek the views of the above authorities on the challenge of poverty eradication in the mining communities in a sustainable livelihood context. It is important to understand the impact of artisanal mining on

rural development as well as identify other complementary or alternative income generating activities, farm or non-farm.

5. Proceed with the analysis of the PRA findings. At the end of each survey, the team or experts responsible for the exercise should make a critical assessment of the gathered information: identified problems; assessment of the capacity and constraints of the communities; possible development prospect within existing institutional and a structural reality and the suggestions made by the local authorities and stakeholders. A separate report should then be prepared for each surveyed site. A final syntheses will be prepared, in which the specificity as well as the commonalty of the sites will be highlighted.
6. Recommendations will be offered in a sustainable livelihood dynamic. These recommendations should specify the respective roles and responsibilities of the various actors; communities; local authorities; federal authorities; sectoral entities; civil society; donors; etc. These recommendations should be drawn from the analysis carried out at the three main levels of decision-making.
7. Organize a national workshop in Addis Ababa to validate the recommendations as well as exchange views and recommendations with the project Steering Committee and the broad stakeholder community. In addition to sensitizing the participants to the issues, the workshop can further enrich the recommendation by bringing in additional experiences.
8. Final Report. The contractor will prepare a report (30 pages, plus annexes) based on the above-obtained findings and submit it to UNDP and DESA for review and clearance. The policy report will take into account the country's economic and social environment, rural practices and customs and complementary subsistence activities. The report should propose operational programmes to ensure sustainable livelihoods of the targeted communities. Furthermore, the report should endeavor to make policy proposals, which can be applicable to other rural social groups.

## **Annex 2.A Mining Laws and Regulations**

The relevant mining laws and regulations regarding the legal requirements of mine projects are:

### **1 Earlier Mineral Law and Regulations**

- a) Mining Proclamation No. 282/1971 of March 12, 1971 (controlled mining activity in Ethiopia for the last 22 years).
- b) Mining Regulation of 1971 (Legal Notice No. 396 of June 24m 1971)
- c) Proclamation No. 39 of 25 June 1975 which basically provides for Government control of Mineral Prospecting, Exploration and Mining Activities.
- d) Mining Proclamation, Article 45, as regards the inspection of mines for the purpose of labor and third party safety.
- e) Proclamation of to Restrict and control the possession of Explosives, No. 19 dated 1942.

### **Mineral Laws of the 1970's and their Impact on Mineral Development**

- By 1971 it was fully realized that exploration and development of mineral resources were essential to the economic growth and welfare of the Ethiopian people. It was also believed that exploration and development of minerals should be undertaken in accordance with sound principles of modern technology and resource conservation and should provide a greater knowledge of the mineral potential of the country through the compilation of geological maps and statistics.
- It was further recognized at this period of the development of the mining sector that a statement and clarification of the law would serve to accelerate such development and encourage the participation of private national and foreign investment.
- Accordingly, the following laws were promulgated in 1971.
  - a. Proclamation No. 282/1971 of March 12, 1971.

b. The Mining Regulations of 1971 (Legal Notice No. 396 of June 24, 1971).

- The Proclamation and Regulations referred to above, set up the regulatory organs, the various types of permits or licenses for prospecting, exploration and development and set up Office of the Controller of Mines.

The Proclamation also included provisions on Trade Licenses for precious minerals. The Proclamation and regulations set-up, for the first time in the history of the mining sector in Ethiopia, a comparatively advanced legislation and according the benefit of investment laws to prospecting, exploration and mining operations. The laws although failed to encourage small scale and artisanal mining, could have become a basis for raising sufficient capital and resource to develop the mining sector had they not short lived.

- The Mining Proclamation and regulation of 1971 did not however operate for long and were not implemented as Ethiopia adopted a policy of state ownership of key production establishments and put natural resources and minerals as state property in 1975. Thus, these laws were rolled back and instead restrictive policies and laws were introduced.

### **Adoption of Socialist Mining Laws and their Impact on Mineral Development**

Following the establishment of the Provisional Military Administration Council in 1974, the Government introduced Socialist Economic Policy. The policy categorized mining in three categories and Socialist Mining laws were promulgated. These are the following:-

These laws are briefly described as follows:

- a) Proclamation No. 39 of 1975 which basically provides for Government Control of Mineral Prospecting, Exploration and Mining activities. This law
  - Established mining activities to be undertaken by the government (precious minerals, gold, platinum),

- Provided for mining activities to be undertaken jointly by the government and foreign capital (iron, copper, chemicals).
  - Outlined mining activities which may be undertaken by the private sector (Quarrying of marble, limestone, sand, gravel stone and other quarry substances, small scale mining of salt, prospecting, exploration and mining of industrial clays and other minerals used of the manufacture of products such as bricks, chinaware, ceramic products, glass and bottle, prospecting, exploration and exploitation of minerals of thermal water).
- b) Proclamation No. 229 of 1982 dated December 11, 1982 by which the Ethiopian Mineral Resources Development Corporation was established as a sole government mining enterprise and was empowered to undertake the following:-
- To undertake detailed exploration of minerals,
  - To develop economic mineral deposits,
  - To produce and process mineral products,
  - To participate in joint ventures in the development production and sale of minerals.
- c) Proclamation No. 230 of 1982 dated December 11, 1982 which established the Ethiopian Institute of Geological Surveys empowered to undertake the following:-
- to conduct geological reconnaissance surveys, mapping and exploration program,
  - to identify mineral deposits.
- d) Joint venture Establishment Proclamation, Proclamation No. 235/1983 of January 22, 1983 by which joint venture investment (Ethiopian public capital and foreign private or public capital) can be invested on precious metals if permitted by the Council of ministers.
- e) Council of Minister's Regulation No. 10/1990 which provided for participation of foreign investors (to be authorized by the Council of Ministers).

- f) Joint Venture Council of State special Decree No. 11/1989 of July 5, 1989 by which the formation of joint ventures (public capital participation and foreign investors (to be authorized by the Council of Ministers).
- g) Joint Venture Council of State special decree No. 11/1989 of July 5, 1989 by which the formation of joint ventures (public capital participation and foreign public, foreign or domestic private capital) was permitted.
- h) Council of State special decree on Investment Decree No. 17/1990, May 19, 1990 by which local or foreign investors were entitled to invest without any limitation on capital ceiling.

The following laws had been promulgated after the Ethiopian government adopted the new market oriented economic policy:

- a) Mining Proclamation No. 52 of 1993.
- b) The Mining Income Tax Proclamation No. 53/1993.
- c) Mining Operations, Council of Minister's regulations No. 182/1994.
- d) Proclamation No. 22/1988 which reduces state free participation to 2%.
- e) Proclamation No. 23/1988 where large-scale and small-scale mining tax is fixed at 35%.
- f) Proclamation No. 33/1992 define the sharing of revenue between the Central Government and the National Regional Self Governments.
- g) Constitution of the Federal Democratic Republic of Ethiopia.
- h) Mining (Amendment) Proclamation No. 118/1998.
- i) Proclamation No. 52/93, which governs licensing and general operations of minerals in the country. Proclamation No. 53/93 provides for the taxation of mineral operation whereas Proclamation No. 33/92 deals with the sharing of revenues from mineral operations and other incomes. Regulation 182/94 deals with licensing procedures of mineral operations. The remaining legislation No. 22, and 23 as well as proclamation No. 118/98 provide for the amendment of the

above-mentioned laws. Article 97 and 98 of the constitution also makes amendments to the mineral taxation laws as analyzed later in this section.

The Mining Proclamation as amended provide the following:-

- Invites private investment in all kinds of mineral operation,
- Provides one year exclusive prospecting license,
- Provides three years exclusive exploration license with two renewals of one year each,
- Provides exclusive mining license for twenty years with unlimited renewals for large-scale operations and ten years for small-scale operation.
- Requires adequate health, safety and environmental protection,
- Provides inclusion of minerals which were not originally specified in the license as they are discovered,
- Guarantees the licensee's right to sell the minerals locally or abroad,
- Provides exemption from customs duties and taxes on equipment, machinery, vehicles and spare parts necessary for mineral operations, i.e. 100% exemption from the payment of import customs duties and other taxes levied on imports of capital goods and equipment as well as spare parts up to 15% of the value of the capital invested, provided that all envisaged imports are unavailable locally in comparable quantity, quality and price,
- Guarantees the opening and operation of a foreign currency account in banks in Ethiopia and remittance of dividends, principal and interest on a foreign loan etc. out of Ethiopia,
- 2% government free equity on mining operations on large-scale operations,
- Requires environmental impact study,
- Provides for dispute settlement through negotiation and international arbitration.
- Provides security of tenure.

**Mining income tax proclamation provide the following:-**

- Generous deductions and calculations of expenditure,
- Ten years loss carry forward,
- Write off of investment within four consecutive years, i.e. depreciation of the major machineries and equipment is calculated on straight-line basis and at 25% rate of the acquisition value and as per the Mining Income Tax Proclamation No. 53/1993 Art. No.8.
- 35% tax, on taxable income generated from mining operation,
- 10% dividend tax.

**Mining Regulations No. 182/1994**

Among other things deals with:

- Contents of applications
- Procedures for issuing, renewal, transfer and revocation of licenses,
- Size of license area, however, without limitation to number of licenses,
- Books, records and reports,
- Royalties of 2-5% and rentals and fees, etc.

## Annex 3.A Adola Area Placer Gold Deposit Potentials by Exploration Category as of Sept. 3, 1996

## A. Proved Reserves (CI)

No.	River Basin	Name of Valley	Unexploited Lines	Exploration Category	Deposit Size	Stripping Ratio (m <sup>3</sup> /m <sup>3</sup> )	Wash Volume (m <sup>3</sup> )	Average Wash Content (g/m <sup>3</sup> )	Gold Reserve (kg)	Status of Mineral Rights	Remarks
1	Awata	Upper Gora		CI	Small	0.7	44,220	0.49	21.7	A.G.M.E	Slightly Small for Mechanized Mining
2	Mormora	Alemteley (Tributary of Legendina)	40-41	CI	Small	1.5	7,120	1.79	12.8	Government	Can be mined jointly with Legendina left over/tailing
3	Awata	Dibota-2	0-8	CI	Small	0.2	69,120	0.76	26.3	Government	Narrow for mechanized Mining
4	Awata	Dibota-1		CI	Small	0.5	76,064	0.61	23.2	Government	Narrow for mechanized mining & strongly exploited by hand workers
5	Mormora	Chemeti	11-25	CI	Small	0.4	36,000	0.5	18.0	A.G.M.E	Requires proper mining technique to remove water logged in the grave
6	Awata	Shanka (Tailing)		CI	Small	0.5	103,200	0.5	51.6	Government	Exploited by dragline & estimated from bedrock & high bank gravels
7	Awata	U. Shanka	0-6	CI	Small	0.5	21,832	0.45	9.82	A.G.M.E	Can be mined
8	Mormora	Lower Wolena	34-46	CI	Small	2.13	32,100	1.0	32.1	Government	Narrow & out cropped
9	Awata	Hadi Debasari		CI	Small	3.4	40,508	1.18	47.8	Government	Partially water logged
10	Mormora	Upper Wolten (Sakaro Tributary)	(CI-1)-(CI-6)	CI	Small	0.77	48,833	0.6	29.3	Government	Ready for exploitation
11	Mormora	Tikur Wolta (Hide-Dima)	10-32	CI	Small	3.4	75,470	1.17	88.3	Government	Water logged & partially mined
12	Mormora	Gawssa	0.6	CI	Small	2.36	19080	1.34	25.6	Government	Water logged & partially mined
13	Mormora	Legn Geshie	0-7A	CI	Small	2.56	28,760	1.45	45.7	Government	Narrow & outcropped
14	Mormora	Legn Dima Left Over & Tailing	17-67	CI	Small	0.5	36,000	2.1	75.0	Government	Ready for mining
15	Awata	Alemteyaye (Gayo)	0-4	CI	Small		31,571	0.7	22.1	A.G.M.E	Water logged & needs proper mining technique
16	Bore	Lower Bore	164-132	CI	Small	4.8	564,360	1.0	370.0	A.G.M.E	Can be mined immediately
17	Bore	Tesfa	1-7,1R1-1R7	CI	Small	6.0	23,080	3.15	72.7	CIRA	Ready for mining
18	Bore	Large Gajana	4-28	CI	Small	2.5	84,482	0.87	73.5	Government	Ready for mining
19	Bore	Hiro Ghini	1-28	CI	Small	1.76	51,625	0.80	41.3	CIRA	Ready for mining
20	Bore	Shastenne	0-4	CI	Small	4.6	10,590	0.85	9.0	Government	Ready for mining
21	Bore	Upper Bore Terrace		CI	Small	4.4	15,000	1.0	15.0	CIRA	Ready for mining
22	Bore	I. Kadimeti Terrace	6-12	CI	Small	2.6	16,133	0.75	12.1	A.G.M.E	Ready for mining
23	Bore	U. Kadimeti	66-72	CI	Small	9.8	43,200	3.29	142.0	A.G.M.E	Currently under exploitation by A.G.M.E
24	Bore	Kadimeti Tailing	18-68	CI	Small		272,727	1.10	300.0	A.G.M.E	Can be mined immediately
25	Dawa	Frankichaha	0-20	CI	Medium	0.7	168116	0.69	116.0	NM/C	Can be mined
26	Dawa	Tulla (Delewa)	0-(2)0-(46)	CI	Small	1.3	8000	1.75	14.0	NM/C	Can be mined
27	Dawa	Burn-Eyessa	18-47	CI	Medium		248,364	0.55	136.6	NM/C	Can be mined
28	Dawa	Mechlira	30-155	CI	Medium		491,048	0.62	304.50	NM/C	Can be mined
29	Dawa	Wachin Dima (Delewa)	12E-16W	CI	Small		14750	0.49	7.23	NM/C	Can be mined with further exploration work
30	Dawa	Dama	52-0	CI	Small	1.76	90,250	0.80	72.2	NM/C	Ready for mining

Source: Adola Gold Mines Enterprise, AGME.

## Annex 3.A (Cont'd)

B. Probable Reserves (C<sub>2</sub>)

No.	River Basin	Name of Valley	Unexploited Lines	Exploration Category	Deposit Size	Stripping Ratio (m <sup>3</sup> /m <sup>3</sup> )	Wash Volume (m <sup>3</sup> )	Average Wash Content (g/m <sup>3</sup> )	Gold Reserve (kg)	Status of Mineral Rights	Remarks
1	Awata	Bedakessa	10-66	C2	Large	3.5	416,300	1.55	645.8	A.G.M.E.	Water lagged gravel & partially mined
2	Awata	Kelecha	61-80	C2	Medium	2.6	498,260	0.69	343.8	Government	Requires proper mining technique to remove water logged in the gravel
3	Awata	Awata Terrace	35-3	C2	Small	0.76	48,240	2.21	106.6	Government	Mainly water logged and requires further detail exploration
4	Mormora	Wollera Tailing		C2	Small		10,000	0.5	50.0	Government	Needs further detail exploration
5	Awata	Belesa		C2	Small	7.8			33.0	Government	33 kg of gold was reported without mentioning other parameters, Test pits indicate potentiality of the valley
6	Mormora	Ikokollo	0-32	C2	Small	5.2	41,881	1.01	42.3	RMC	Needs further exploration to upgrade the reserve to CI category, Ready for mining.
7	Bore	Korkoro	6-17	C2	Small	17.8	46,170	4.70	217.0	A.G.M.E.	Needs further exploration to upgrade to CI category
8	Dawa	Gambella	140-232	C2	Medium		161702	0.47	76.9	NMC	Can be mined with further exploration work

C. Inferred Resources (P<sub>1</sub>-P<sub>3</sub>)

No.	River Basin	Name of Valley	Unexploited Lines	Exploration Category	Deposit Size	Stripping Ratio (m <sup>3</sup> /m <sup>3</sup> )	Wash Volume (m <sup>3</sup> )	Average Wash Content (g/m <sup>3</sup> )	Gold Reserve (kg)	Status of Mineral Rights	Remarks
1	Mormora	Lower Part of Legadembi		P3	Medium				420.0	Government	Exploration data is not available & further systematic exploration is required
2	Awata	Lalissa Creek - Alo- Near Tikur Woha	Bellow line (±5)	P1	Small		28,600	0.43	12.3	A.G.M.E.	There is no data with reserve calculation. It needs further exploration
		- Alona & Girborsa Area		P1	Small				120.0	Government	These reserves are calculated depending on hard workers operation on these areas. Need further work to confirm the reserve
		- Chakera & Kumudu Area		P1	Small				80.0	Government	
		- Hoko- Mamma	0-1	P1	Small	1.75	63,000	1.9	150.0	CRA	Needs further detail exploration
3	Dawa	Kurso		P1	Small				12.1	Government	Further prospecting work and currently under exploitation by hand workers
4	Dawa	Dawa Terrace		P1	Small				90.0	NMC	Mining by handworkers and test pit warrant follow up exploration
									145.0	NMC	

Source: Adola Gold Mines Enterprise, AGME.

**Annex 3.B Gold Production by Artisanal Mining in Adola Area from (1942/43) to (1987/88)**

No.	Year		Production in Grams
	G.C.	E.C.	
1	1942/43	1935	334,628
2	1943/44	1936	1,510,936
3	1944/45	1937	1,662,892
4	1945/46	1938	1,507,296
5	1946/47	1939	1,300,012
6	1947/48	1940	1,311,436
7	1948/49	1941	1,476,104
8	1949/50	1942	1,236,088
9	1950/51	1943	935,732
10	1951/52	1944	692,132
11	1952/53	1945	681,968
12	1953/54	1946	529,116
13	1954/55	1947	585,073
14	1955/56	1948	578,834
15	1956/57	1949	511,025
16	1957/58	1950	733,075
17	1958/59	1951	1,193,252
18	1959/60	1952	510,025
19	1960/61	1953	546,298
20	1961/62	1954	426,541
21	1962/63	1955	373,052
22	1963/64	1956	391,372
23	1964/65	1957	526,891
24	1965/66	1958	444,536
25	1966/67	1959	465,592
26	1967/68	1960	680,298
27	1968/69	1961	823,166

No.	Year		Production in Grams
	G.C.	E.C.	
28	1969/70	1962	612,808
29	1970/71	1963	452,786
30	1971/72	1964	394,352
31	1972/73	1965	456,420
32	1973/74	1966	470,152
33	1974/75	1967	524,201
34	1975/76	1968	769,716
35	1976/77	1969	266,978
36	1977/78	1970	204,546
37	1978/79	1971	206,304
38	1979/80	1972	341,528
39	1980/81	1973	323,563
40	1981/82	1974	243,800
41	1982/83	1975	162,303
42	1983/84	1976	127,788
43	1984/85	1977	122,000
44	1985/86	1978	115,142
45	1986/87	1979	88,700
46	1987/88	1980	94,000
47	1988/89	1981	103,596
48	1989/90	1982	68,380
49	1990/91	1983	28,102
50	1991/92	1984	7,619
51	1992/93	1985	1,667
	Total		28,154,904

Source: Ministry of Mines & Energy and AGME.

#### **Annex 4. United Nations Agencies in Ethiopia**

##### ***Resident Agencies***

1. Food and Agriculture Organization (FAO)
2. International Labour Organization (ILO)
3. International Livestock Research Institute (ILRI)
4. International Monetary Fund (IMF)
5. International Office for Migration (IOM)
6. International Telecommunications Union (ITU)
7. Joint United Nations Programme on HIV/AIDS (UNAIDS)
8. United Nations Development Programme (UNDP)
9. United Nations Economic Commission for Africa (UNECA)
10. United Nations Population Fund Activities (UNFPA)
11. United Nations High Commission for Refugees (UNHCR)
12. United Nations Children's Fund (UNICEF)
13. United Nations Industrial Development Organization (UNIDO)
14. World Bank
15. World Food Programme (WFP)
16. World Health Organization (WHO)

##### ***United Nations Non-Resident Agencies Active in Ethiopia***

1. International Atomic Energy Agency (IAEA)
2. International Civil Aviation Organization (ICAO)
3. International Fund for Agricultural Development (IFAD)
4. International Maritime Organization (IMO)
5. International Trade Center (ITC)
6. Office of High Commissioner for Human Rights (UNHCR)
7. Universal Postal Union (UPU)
8. United Nations Center for Human Settlements (HABITAT)
9. United Nations Conference on Trade and Development (UNCTAD)
10. United Nations High Commissioner for Human Rights (UNHCR)

11. United Nations Office for Drug Control and Crime Prevention (UNDCP)
12. United Nations Office for Project Services (UNOPS)
13. United Nation Environment Programme (UNEP)
14. United Nations Institute for Training and Research (UNITAR)
15. World Intellectual Rights Organization (WIPO)
16. World Meteorological Organization (WMO)
17. World Trade Organization (WTO)

## **Annex 5: List of Persons and Institutions Contacted**

### **At the Macro Level**

#### **Ministry of Mines**

1. H.E. W/ro Senkenesh Ejigu  
Minister of State
2. Ato Girma Bekele  
Head/Plan and Programme Department
3. Ato Getachew Tesfaye  
Head/Mine Operations Department
4. Ato Teshome Abamegal  
Team Leader
5. Ato Geset Tilahun
6. Ato Mesfin Asnake  
Licensing and Promotion Team Leader
7. Ato Guta Desalegne  
Manger- Branches Relation and Customers Accounts Commercial Bank

#### **AGME**

1. Ato Taddesse H/Mariam  
A/Manager
2. Ato Abdu Bazabh  
Operations Manager

#### **Ministry of Labour and Social Affairs**

1. Ato Tanisu Jeba  
Head/Planning and Programming Department
2. Ato Zerihun  
Occupational Health and Safety Team-Leader

#### **Ministry of Finance and Development**

1. Ato Getachew Adem  
Head/Economic Policy and Planning Department

#### **Ministry of Agriculture**

1. H.E. Ato Gebre Medhin Belay  
Vice-Minister

2. Ato Bekele Wegayehu  
Head/Planning and Programming Department
3. Ato Solomon Yilma  
Project Formulation & Evaluation, Senior Expert, in Natural Resource Conservation & Utilization.
4. Ato Fetta Zeberga  
Expert- Policy Planning and Programming Department
5. Ato Million Bekele  
Forest and Wild Life Conservation Expert

**Environment Protection Authority**

Ato Amanuel Malifo

Head/Environmental Policy and Legislation Department

**Mezo Level**

**Oromiya Regional State**

**Mineral Resources Development & Energy Bureau**

1. Ato Tariku Negera  
Bureau Head
2. Ato Assefa Kumssa  
Mines Department Head
3. Ato Yadessa

**Bureau of Finance and Economic Development of Oromia**

1. Ato Ahmed Tussa  
Head Oromia Bureau of Finance & Economic Development
2. Ato Fekadu Terefe  
Planning & Economic Development Department Head

**Natural Recourse Conservation Bureau**

1. Ato Yaddessa Dinsa  
Land Use Planning and Regulatory Department, Head
2. Ato Siraj Bekele  
Conservation Strategy Department

**Bureau of Education**

1. Ato Teshome Lemma  
Plan and Programmes Panel Head
2. Ato Yezid Reshid  
Education Management and Information Systems Panel Head

**Food Security Co-ordination Office**

1. Ato Abate Jijo  
Head Food Security Co-ordination Office

**Co-operative Promoting Bureau**

1. Ato Dufera Moti  
Head/Co-operative Organization and Promotion Department.

**Micro Level Zone Wereda & Kebele**

Borena Zone

**Zonal Administration Office**

1. Ato Gelana Nuressa  
Deputy Administrator
2. Ato Desta Damena  
Senior Expert Plan Office

**Mining Energy and Nature Resource Development Office**

3. Ato Denke Teferra  
Community Participation Team Leader
4. Ato Gashaw Benti  
Water Resource Engineer
5. Ato Turra Wendemu  
Surveyor Mining and Water Resources

**Trade and Industry Office**

6. W/ro Senait Werkeneh  
Acting Head

**Zonal DPPD**

7. Ato Tesfaye Gutema  
NGO Coordinator
8. Ato George Bayssa  
Project Coordinator

**Odo Shakisso Wereda  
Wereda Administration**

1. Ato Wako Arbo  
Wereda Administrator
2. Ato Tegegne Agegnehu  
Agricultural Development Officer

**Wereda Health Office**

3. Ato Belew Aize  
Wereda Health Assistant
4. Ato  
Wereda Education Officer

**Kebele**

1. Ato Udo Borene  
Hayadima Kebele Administrator

**Lege Dembi**

- Ato Menkir Yegebru  
Administrative Department Head

**West Shoa Zone****Zonal Administration**

1. Ato Bekele W/Mariam  
Deputy Administrator

**Plan and Economic Development Department**

2. Ato Daniel Negeri  
Plan Preparation and Development Information Team-Leader

**Health Office**

3. Ato Aberra Seifu  
Department Head

**Mining and Energy Department**

4. Ato Mirkana Dhabassa

**Wereda Administration /Guder/**

5. Ato Muleta Bekele  
Administrator
6. Ato Bekele  
Deputy Administrator
7. Ato Haile Gurmessa  
Finance and Development Desk, Head
8. Ato Dribi Feyessa  
Agricultural Desk – Head

**Wereda Administration (cont'd)**

9. Ato Tulu Sendafa  
Education Office Representative
10. Ato Mulatu Sahlu  
General Service Officer

**Senkele and Farisi Kebele**

11. Ato Mirkena Tumssa  
Chairperson
12. Ato Tekalign Kebede  
Development Agent (DA)

**Community Members with Whom Checklists were Filled at Hayadima Site****I. Haydima Village**

1. Ato Bekele Beshir
2. W/ro Messelech Demissie
3. Ato Mesfin Gonfa
4. Ato Gelchu Gobena
5. Ato Udo Borena
6. Ato Teferra Gurma
7. W/ro Ajete Mohammed
8. Ato Getachew Mekonnen
9. W/ro Terunesh Gameda
10. Ato Hussen Ali
11. Ato Kedir Abdella
12. Ato Asrat Bezademu
13. W/ro Werke Duba

## 14. Ato Mengistu Roba

**II. Digga Debobessa Settlement**

1. Ato Sehenafi Dube
2. Ato Wendemu Tadesse
3. Ato Naser Hussien
4. Ato Wegene Eshetu
5. Ato Abdul Kerim Mohammed
6. Ato Tariku Adola
7. Ato Tekle Gebre
8. Ato Jarso Gelgelo
9. Ato Mersa Demisse
10. Ato Kassahum Getenet
11. Ato Tuke Adula
12. W/ro Terunesh Kebede
13. W/ro Feleketch Tsegaye
14. W/ro Enat Getnet

**III. Ula Ulo Settlement**

1. Ato Golocha Kerso
2. Ato Tolosa Kejela
3. Ato Shiferaw Degefa
4. Ato Deriba Mulisa
5. Ato Ana Wako
6. Ato Wako Udo
7. Ato Bayissa Negerra
8. Ato Tegene Admassu
9. Ato Demboba Dingem
10. Ato Adissu Wako
11. W/ro Shura Jilo
12. W/ro Butiti Burmu
13. W/ro Mulu Ketsela
14. W/ro Elelo Udo
15. W/ro Rahel Ahmed
16. Ato Aman Hassen
17. W/ro Kulela Sora

**IV. Kokebe (Kajimitti) Settlement**

1. Ato Maro Oda
2. Ato Felleke Bekele
3. Ato Zeleke Dara
4. Ato Amin Haji
5. Ato Aman Kimo
6. Ato Abdulahi Mohamed
7. Ato Ketema Lankamo
8. Ato Mesfin Jarra

9. Ato Kassim Yohannes
10. W/ro Mulu Desalegne
11. W/ro Yeshi Gessesse
12. W/ro Baricho Mekonnen
13. Ato Regassa Urga

**V. Samuna Dengay Settlement**

1. W/ro Yenensh Wendemu
2. W/ro Asegedech Alemayehu
3. W/ro Medhanit Jasso
4. Ato Sebsebe Worku
5. Ato Amsalu Lema
6. Ato Tesfay Cherinet
7. Ato Mohamed Adem
8. Ato Wotessa Baraco
9. Ato Abdurahman Awel
10. Ato Boru Arere
11. Ato Tuke Adula
12. W/ro Bertukan Taddesse
13. W/ro Mulunesh Mergia
14. W/ro Aynalem Morka

**VI. Bore Shet Settlement**

1. Ato Safey Kenchura
2. Ato Gelgelo Wato
3. Ato Shetaw Gebre Tsadik
4. Ato Kebede Zeleke
5. Ato Gameda Jilo
6. Ato Dida Gololcha
7. Ato Girma Legesse
8. W/ro Yaltashework Bekele
9. Ato Aschalew Gebre
10. Ato Tesfaye Lema
11. Ato Teklel Wolde
12. W/ro Teri Beto
13. W/ro Mulu Buya
14. W/ro Mitike Beyene

**Senkele and Farisi Site**

**License Holders Lists of Key Informants**

1. Ato Alemu Bekele
2. Ato Dhabassa Chaluma
3. Ato Negassa Gediffa
4. Ato Tamiru Geremew
5. Ato Shaka Gurmessa
6. Ato Mirkana Tumssa

**Artisanal Miners**

1. Ato Mulugetta Keba
2. Ato Gadissa Kumela
3. Ato Aberra Byissa
4. Ato Hirpa G/Mariam
5. Ato Mideksa Tolessa
6. Ato Kebed Letta
7. Ato Berhanu Gudissa
8. Ato Sheferaw Daba
9. Ato Dabere Gezahegne
10. Ato Adeba Bersisa
11. Ato Dejene Birru
12. Ato Tadesse Nuressa
13. Ato Berhanu Mulissa
14. Ato Negerra Duguma
15. Ato Mossissa Uluma
16. Ato Werkench Disassa
17. Ato Aeba Bersissa
18. Ato Teshale Guluma
19. Ato Tesfaye Milkessa

**Miner – Farmers**

18. Ato Kenfe Akanna
19. Ato Fekadu Irena
20. Ato Teshome Asfaw
21. Ato Kumsa Leta

**Miner- Student (Age 9-15 years)**

1. Werku Nuressa
2. Bayissa Leta
3. Terunehu Leta
4. Tesfaya Olike
5. Wakuma Safara
6. Delessa Gudeta
7. Mesgana Mitiku
8. Takele Safara
9. Dirissa Dala
10. Mesgana Beksissa

**Unemployed**

1. Lemessa Chalchissa

**Service Providers**

2. W/ro Berhane Dendena
3. Ato Dereje Debela

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