

SUSTAINABLE ARTISANAL MINING PROJECT

Policy recommendations on artisanal gold supply chain and its contribution to macroeconomic development

MONGOLIAN EXPORTERS' ASSOCIATION

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CONTENT

CONTENT	2
1. INTRODUCTION.....	5
2. STUDY GOAL AND OBJECTIVES.....	7
3. STUDY METHODOLOGY	8
4. STUDY SCOPE AND FRAMEWORK.....	8
5. CURRENT STATE OF GOLD SECTOR: SITUATIONAL ANALYSIS OF ARTISANAL GOLD SECTOR.....	9
5.1. Current state of gold sector.....	9
5.2. Artisanal gold sector	12
5.3. Current state of artisanal gold supply chain	15
6. MANAGEMENT AND STRUCTURE OF ORGANIZATIONS INVOLVED IN GOLD SUPPLY CHAIN.....	19
7. IMPLEMENTATION OF ARTISANAL POLICY DOCUMENT	23
8. ARTISANAL MINING LEGAL FRAMEWORK.....	25
9. CONTRIBUTION OF ARTISANAL GOLD SUPPLY CHAIN TO MACROECONOMIC DEVELOPMENT:.....	26
9.1. Gold royalty rate	26
9.2. Personal income tax.....	27
9.3. Impact on increase of foreign exchange reserves.....	28
9.4. Impact on import trade reserves	29
9.5. Job creation.....	30
9.6. Local social development	30
10. DIFFICULTIES AND PROBLEMS FACED BY ARTISANAL GOLD MINING AND SUPPLY CHAIN:	31
10.1. Artisanal gold mining and supply chain:.....	31
10.2. Organizations involved in the gold sales and structure :	32
10.3. Artisanal mining legal environment:	33
10.4. Difficulties and problems on improving contributions of artisanal gold mining and supply chain to macroeconomic development:	34

11. POLICY RECOMMENDATIONS TO IMPROVE ARTISANAL GOLD MINING AND SUPPLY CHAIN.....	35
11.1. Option 1: Creating a one-stop service in aimags, soums where gold processing plant and artisanal mining activities are concentrated.	35
11.1.1. In the frame of improvement of artisanal gold mining and supply chain:	35
11.1.2. In regard to organizations involved in the gold sales and structure:	36
11.1.3. Regarding the legal environment of artisanal mining:	36
11.1.4. Difficulties and problems in boosting contribution of artisanal gold mining and supply chain to macro-economic development:	37
11.2. Option 2: Creation of a gold exchange	37
12. CONCLUSIONS:	40

TABLES AND FIGURES

TABLES

Table – 1:	Gold mining,gold sales to Bank of Mongolia
Table – 2:	Partnerships and their members
Table – 3:	Artisanal gold mining, tonnes
Table – 4:	Gold sales to Bank of Mongolia by gold traders and artisanal miners
Table – 5:	Artisanal miners’ royalty rate to state budget
Table – 6:	Artisanal miners’ gold sales and foreign exchange reserves
Table – 7:	Artisanal miners’ gold sales and import trade reserves

FIGURES

Figure – 1:	Current state ofartisanal gold mining and supply chain
Figure – 2:	Organizations involved in the gold sales and structure

ГРАФИК

График – 1:	Mongolian gold export
График – 2:	Number of artisanal gold miners

1. INTRODUCTION

Mining, in particular the artisanal gold mining has been rooted for many thousands of years and is one of the traditional forms of mining. Since Mongolia's transition from centralised economy towards a market-led economy, at a time when the national unemployment rose and poverty grew, many people of society, with the aim to survive group of people took up artisanal mining in sand-dumps at gold mine locations, placing their lives and health at great risks.

First activities in private artisanal mining began in 1997 in areas surrounding the Boroo gold mine in Bayangolsoum, Selenge province. Since 1999, individuals began private mining at sites that were previously mined by gold producing companies operating in the Zaamarsoum, Tuv province as well as from technological waste materials.

Between 2000-2002 the country experience severe weather conditions such as drought, dzud, environmental disasters, many thousand herders were taken away from their livelihoods and cattles, as well as difficulties faced in the agricultural sector, causing a sudden increase in the numbers of poors, leaving them with no other choice than take up artisanal mining in order to maintain living.

Since then, artisanal miners have been undertaking mining activities in their surrounding areas for minerals such gold, coal, fluorspar, iron, salt, fossilised wood which be extracted using simple methods. Majority of private artisanal miners are located in Bayankhongor, Ovorkhangai, Dornogobi, Khentii, Tuv, Selenge and Darkhan-Uul aimags.

With the introduction of assistance from the state and international donor organizations, notable improvements have been seen in the area of artisanal mining. The State has placed an emphasis for the creation of legal environment in artisanal mining.

Since Mongolia's transition into a free market economy, with the aim of overcoming economic difficulties and going towards economic growth, the first Gold program "Gold-1" was implemented in 1992, followed by push towards economic intensification Gold program "Gold-2" was implemented in 2000.

Developing primary and placer gold deposits resulted in an increase in gold mining and production thereby contributing significantly towards export earnings and the gold sector has developed into an independent economic sector.

In recent years, government new policy and mining regulations have ensured positive outcome for the gold mining sector and subsequently the artisanal gold mining sub-sector.

In order to implement the "State Policy on Minerals sector" in 2014, revisions have been made to the existing "Minerals Law" and due to gold royalty rate decreasing by 4 fold, resulted in a boom in gold mining and as such gold sales to the Bank of Mongolia increased two-fold in 2014 as compared with the previous year.

Since the period of implementation of the “Sustainable artisanal mining project” by the Swiss Development Agency over the past ten years, with an active involvement in areas such as formalization of the gold sub-sector, creation of legal framework, introduction of mercury-free gold processing technology and increasing revenues from gold mining.

With the above support, gold sale has become open and transparent, rate of gold sales to the Bank of Mongolia has increased, artisanal miners have been consolidated to become members of cooperative structures, there is an increase in local government support and participation aimed at artisanal miners, overall positive developments in respect from being a non-organized, illegal practice towards the creation of the present day formal, sub-sector status development also leaves rooms for further areas of concern as well as improvement. Among the pressing issues are the need for an increased support towards a more formalised gold supply value chain and the organization of gold sales at the local level. Formalisation of gold sales does not only support the livelihoods of the artisanal miners, moreover supports the local economy, accrue Mongolian treasury fund hence increase the positive effects deriving from artisanal mining activities for the benefit of the macro economy.

In an effort to support the above aims and in order to derive policy recommendations, the following research study has been undertaken. Research report consists of 11 sections, including research aims, scope and objectives, methodology, current situation of gold sector, situational analysis of artisanal sector, management of organizations engaged in gold sales, implementation of policy documents for artisanal mining, legal framework in artisanal mining, contribution of artisanal mining supply chain

towards macroeconomic development, difficulties and problems to artisanal mining and gold supply chain, policy recommendations to improve artisanal gold mining and supply chain as well as conclusions.

Section 5 of the report includes an analysis of the current status of the gold sector, specially artisanal gold mining, gold sales and gold supply chain. Section 6 includes a study of artisanal gold mining, organizations' involvement as well as rights and responsibility of main participants involved in gold sales. Sections 7 and 8 of the study, implementation of artisanal mining policy documents, analysis of current state of artisanal mining legal environment. Section 9 of the report will include an analysis of the economic benefits deriving from the gold supply chain created by artisanal mining, gold royalty rates, personal income tax, the increasing effect on the level of foreign currency reserves and import trade reserves, as well as brief note on the contribution to the local social development and job creation.

Section 10 of the report underlines the main difficulties and problems in artisanal gold mining and supply chain, while section 11 takes policy recommendations to improve artisanal gold mining and supply chain. Finally, section 12 offers conclusions.

2. STUDY GOAL AND OBJECTIVES

The main aim of this study is to evaluate the current state of the artisanal gold supply chain and to analyse its contribution to Mongolian macroeconomic development and to provide policy recommendations on gold supply chain.

In order to fulfill this aim, the study team worked with the following objectives:

- To provide situational analysis of the current state of artisanal mining and gold supply chain;
- To define organizations involved in the gold sales and structure;
- To evaluate the policy documents of artisanal mining and gold supply chain and their implementation;
- To examine the legislative framework of artisanal mining and gold supply chain;
- To evaluate the contribution of artisanal gold supply chain towards macroeconomic development;
- To define the difficulties and problems in artisanal mining and gold supply chain;

- To provide policy recommendations to improve artisanal gold mining and supply chain;
- Conclusions

3. STUDY METHODOLOGY

In this study, the following methodology was used:

- To evaluate policy documents and reports related to artisanal gold mining and supply chain;
- To conduct meetings and carry out interviews with state and provincial organisations related to artisanal gold supply chain;
- To make site visits to artisanal mining locations and to conduct interviews with artisanal miners, gold traders and other people related to this activity;
- To evaluate situational analysis and macroeconomic assessment on artisanal gold mining and supply chain through data and statistics received from governmental and non-governmental organisations.

4. STUDY SCOPE AND FRAMEWORK

The scope of this study consists of current state of artisanal gold mining and supply chain, gold sales to Bank of Mongolia, legislative framework and regulations, challenges and constraints the the gold supply chain, policy recommendations on gold supply chain.

In the study, general overview of the gold sector was made with particular emphasis on the current state of artisanal gold mining and supply chain, its contribution to macroeconomic development of the country.

Throughout the study, meetings and interviews were conducted on-site in Bayan-Ovoosoum of Bayankhongor province, Uvurkhangaï province, Zaamarsoom of Tuv province and Orkhontuulsoum of Selenge province with artisanal miners, gold traders and senior managers of local non-governmental organisations, governors at soum and provincial levels, elected members of Citizens' Representative Khural and tax officers at local government to discuss current state of artisanal gold mining and supply chain, challenges and constraints.

5. CURRENT STATE OF GOLD SECTOR: SITUATIONAL ANALYSIS OF ARTISANAL GOLD SECTOR

5.1. Current state of gold sector

According to the Mineral Resources Agency, as of September, 2014, there are 117 primary gold deposits, 664 placer deposits and 1763 gold findings in Mongolia.

As to the discovered gold resources 15% are primary deposits and 85% are placer deposits of which about 90 % of gold reserves in primary gold deposits.

Today, total gold resources are estimated to be 4000 tonnes, of which OyuTolgoi has 1000 tonnes /Mineral Resources Authority ,2014/.

As a result of the Gold program-1 and Gold program -2, initiated by the Mongolian government during 1992-2004, gold production and export have grown steadily. The gold production consists mainly of placer gold deposits. Since foreign invested Boroo gold deposit came into operation in 2003, a new stage of the gold industry thus began in Mongolia. As of 2014, of the 169 placer gold miners of which 70 are producing gold/Mineral Resources Authority,2014/.

Total gold production in Mongolia has seen growth since 1990 which saw its peak in 2006, while since 2007 until 2012 the rate of production have been continuously declining. Several factors can attribute to this decline, including deterioration of legal environment, decline in proven gold reserves, in addition to decline in foreign direct investments which used to support gold exploration and mining.

Two laws namely in 2006 the "Windfall tax on gold and copper" which applied 68% tax on gold mining, and in 2010 the law often referred to as the long-named law 'To prohibit mineral exploration and mining operations at headwaters of rivers, protected zones of water reservoirs' have both had direct effect in decline in gold production. Since passing of these laws, gold mining has declined drastically reaching the lowest rate of 5.7 tonnes in 2011, gold exploration and sales shifted into the form considered illegal.

In 2011, it was made the amendement to the Minerals law on gold royalty rate reduction. This is introduced if the gold is sold to the Bank of Mongolia, gold royalty rate would be reduced from 10% to 2.5%.

In particular, as a consequence of the adoption of the '68 percent tax law', and the 'long-named law', the rate of Mongolia's gold exploration and gold sales have been decreasing rapidly, while world gold and its export prices had been rising

continuously. Due to the inability of Mongolia to benefit during such positive gold price rises, revenues and taxes from gold mining, gold treasure declined considerably. This is in direct relation to a lack of stable and uniform state policy in the mining sector.

Table-1: Gold mining, gold sales to Bank of Mongolia

Indicators	2006	2007	2008	2009	2010	2011	2012	2013	2014
Gold mining, tonnes	22.5	17.5	15.2	9.8	6.0	5.7	5.9	9.7	12.0
Gold sales to Bank of Mongolia, tonnes	8.0	10.4	7.1	5.0	2.1	3.3	3.3	6.0	12.7
Percentage of gold sale to Mongolbank	36.5	60.1	46.7	47.6	31.3	56.9	50.8	61.9	107.6

Source: Mineral Resources Authority, Mongolbank, 2014

Table 1 shows that beginning from 2006 and until 2011, gold mining decreased from 22.5 tonnes to 5.7 tonnes, although two-fold decline, while from 2012 there was reversal in the level, reaching 12.0 tonnes in 2014. During initial stage of the above period, as a result of the windfall profits tax, gold production declined and the law was repealed in 2011, then with the revision and amendment to the ‘Minerals law’, in case where gold is sold to Bank of Mongolia, the effective royalty rate of 10 percent will be reduced to 2.5 percent, reversing gold mining levels to an increase. For example, total gold production in 2014 was 12.0 tonnes, increasing by 6.1 tons in 2012 and 2.3 tonnes in 2013.

In addition, as shown on Table 1, the amount of gold sold to the Bank of Mongolia corresponds to the changes in the rate of gold production. In 2007, the increase in production for major gold mines such as Boroo gold had direct effect in the rise of gold sold to the Bank of Mongolia. However, during a period when gold production intensified and world prices of gold increased, the adoption of the windfall profits tax created a severe hardship on the gold mining sector, particularly in the artisanal sub-sector, with the effect of gold production shifting to an informal form, resulting in discrepancy in statistics for number of miners, artisanal gold production, weakening of coordination among state organizations, and the erosion of unified information systems.

During 2007 and 2010, the rate of gold purchased by Bank of Mongolia declined from 10.4 tonnes to 2.1, a five-fold decline. Stabilization occurred in 2011 and with a speedy rise since 2014. The adoption of the windfall profits tax in 2006 had a negative

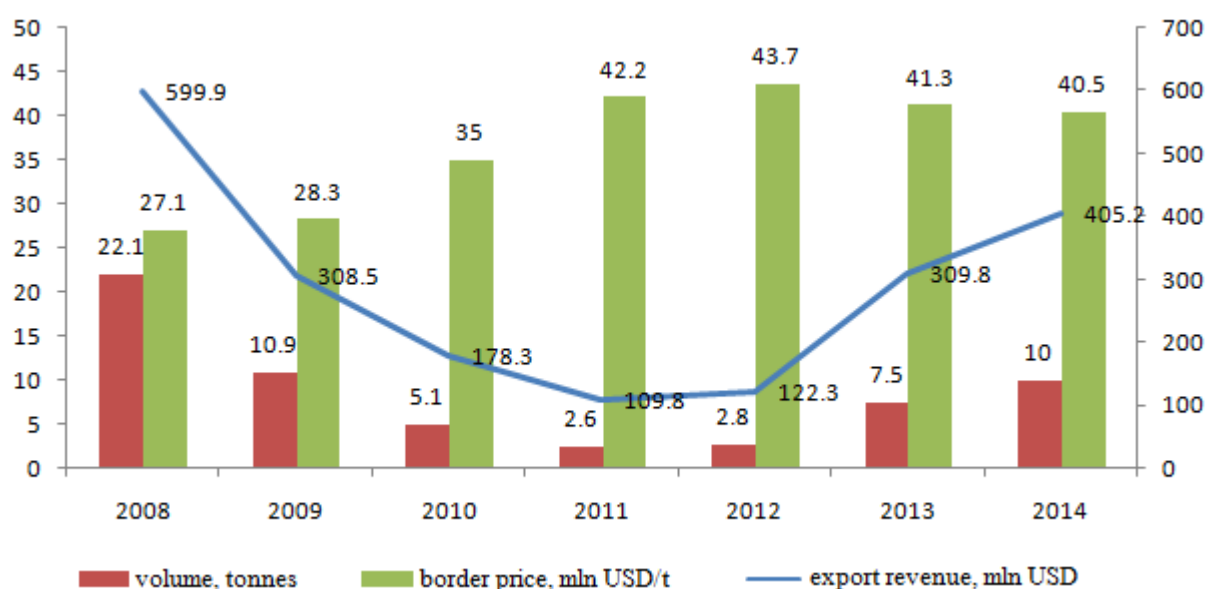
consequence for the purchase of gold to the Bank of Mongolia, the repeal of the law in 2011 meant that during 2011-2013, gold sales reached 3.3-6.0 tonnes.

Amendments to the ‘Minerals Law’ in 2014 had positive impact on gold sales to Bank of Mongolia. Due to the increase in gold production, gold sales to Bank of Mongolia experienced a two-fold increase on the previous year, reaching 12.7 tonnes in 2014.

From Table 1, the share of total gold sold to Bank of Mongolia was 60.1 percent, a two-fold decline in 2010 reaching 31.3 percent, experiencing a reverse increase 2011 whereby level in 2011-2013 stabilized at 56.9-61.9 percent, and 107.6 percent in 2014.

While in 2014, the volume of gold sold to Bank of Mongolia was higher. This was due to individuals and companies storing their gold and waiting for amendments to Article 47, 47.3.3 of the ‘Minerals Law’ adopted in January 2014, and the current preferred status of the Bank of Mongolia to purchase gold. In other words, positive development to the ‘Minerals Law’ resulting in individuals and companies selling gold to the Bank of Mongolia.

Graphic 1: Mongolian gold export



Source: Customs General Administration, 2014

According to Graphic 1, Mongolia’s gold export reached 599.9 million US dollars, experiencing the highest rate within the last 6 years, but with a decline during 2009-2011 while an increase during 2012-2014. Export price of per tonnes of gold at Mongolian border between 2008 and 2012 reached 27.1 million US dollars, increasing to 43.7 million US dollars, a 60 percent increase, while mainly as a result of changes in mining

sector legal environment, volume of gold export decreased, thus impacting the value of revenues deriving from sales of gold. For instance, while gold export in 2008 was 22.1 tonnes, continuously declining and in 2011 reaching a mere rate of 2.6 tonnes, on average an 8.7-fold decline, while increasing to 10.0 tonnes in 2014. Majority of gold were exported to Canada and the UK.

5.2. Artisanal gold sector

According to data from Mineral Resources Agency there are approximately 30 thousand individuals carrying out artisanal mining. In recent years, artisanal mining partnerships and the number of members in artisanal mining partnerships have steadily increased. In July 2010, amendments to the ‘Minerals Law’ meant that ‘relations in artisanal mining shall be subject to relevant procedures and Government approval’. As part of the legal implementation, Government Resolution No.308 defined ‘Procedures for artisanal mining’ were adopted in December 2010, with current implementation. According to this procedure, artisanal miners, in respect to section 477-482 of the Civil Law and the Partnership Law, can form themselves as partnerships, and the partnership have the obligation to form cooperation agreements with local governors.

Artisanal miners and their activities have been legally formalised according to the Minerals Law and procedures in artisanal mining, with the creation of environment to form partnerships, the number of partnerships and its members have increased, with basis for creating principles of responsible mining.

Table-2: Partnerships and their members

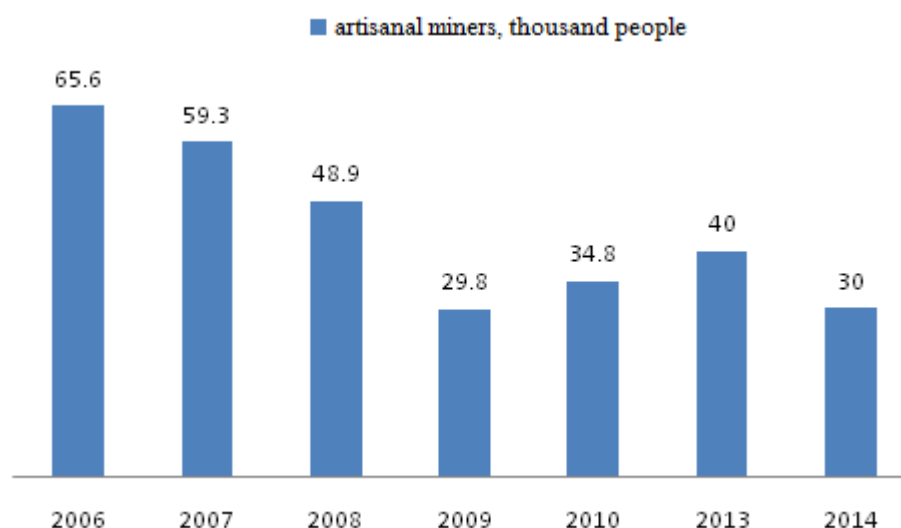
Indicator	2011	2012	2013	2014
Partnerships	20	29	38	41
Members of partnerships	3302	4451	4972	5271

Source: Mineral Resources Authority, 2014

According to the Mineral Resources Authority, there were 20 partnerships with 3.3 thousand members in 2011, which increased to 41 partnerships with 5.3 thousand members in 2014, resulting in 2-fold increase in number of partnerships and 1.6-fold increase in the number of members.

According to the data from the Sustainable Artisanal Mining project, 70% of artisanal miners are operating in the gold sector. Majority of artisanal miners are operating on primary and placer gold deposits. This increase in the number of individuals operating in the artisanal mining is due to the high price of gold at the world market and with fairly quick rate of achieving gold sales and its convertibility, artisanal miners have been offered legal basis to practice gold mining.

Graphic 2: Number of artisanal gold miners



Source: Mineral Resources Authority, Sustainable artisanal project

According to Graphic 2, the number of artisanal gold miners between 2006 and 2009 declined almost 2.2-fold from 65.6 thous. to 29.8 thous., while the number began to increase from 2010. With the adoption of the windfall profits tax, the activities of some entities and artisanal miners decreased, some artisanal miners adopted informal activity forms, resulting in the decline in the numbers of artisanal miners. According to Government Resolution No.308 adopted in 2010, ‘Procedures for artisanal mining’ witnessed an increase in artisanal mining through the formalization of artisanal mining thus positively impacting increase in their numbers.

To determine the amount of gold mined by artisanal miners, “Society, economy and livelihoods of artisanal miners” paper by “Social policy and development research institute” with the support from the “Sustainable Artisanal Mining” project in 2013 were used. Which of:

- The average amount of gold produced by an artisanal miner is 0.4 grams per day, working for 4 months with approximately 20 days per month.
- It is assessed by the average amount of gold production of an artisanal miner and median day of a month.

Based on these figures it can be estimated that the number of gold mined are 2.1 thousand tonnes in 2006, 1.9 thousand tonnes in 2007, 1.6 thousand tonnes in 2008, 0.9 thousand tonnes in 2009, 1.7 thousand tonnes in 2010, 1.3 thousand tonnes in 2013 and 0.9 thousand tonnes in 2014.

Table-3:Artisanal gold mining, tonnes

Indicator	2006	2007	2008	2009	2010	2013	2014
Total gold mining	22.5	17.5	15.2	9.8	6.0	9.7	12.0
Artisanal gold mining	2.1	1.9	1.6	0.9	1.7	1.3	0.9
Share of artisanal gold mining in the total mining(%)	9.3	10.9	10.5	9.2	28.3	13.4	12.5

Source: Study team's estimates

Table 3 aims to show total gold production in Mongolia during 2006 and 2014, particularly the share of gold produced by artisanal miners. Similar to the trend experienced in the gold sector, levels of artisanal mining with a decline during 2006 and 2009 and an increase from 2010. The windfall profits tax also had an impact on artisanal miners.

Table – 4: Gold sales to Bank of Mongolia by traders and artisanal miners

Indicators	2006	2007	2008	2009	2010	2011	2012	2013	2014
Amount of total gold sales to Bank of Mongolia, tonnes	8.0	10.4	7.1	5.0	2.1	3.3	3.3	6.0	12.7
Amount of gold sales to Bank of Mongolia by traders, tonnes	0.5	0.3	0.675	0.460	0.038	0.215	0.016	0.003	3.2
Share of traders' gold sales to Bank of Mongolia %/	6.3	2.9	9.5	9.2	1.8	6.5	0.5	0.1	25.2

Source: Mineral Resources Authority, Bank of Mongolia, 2014

Table 4 shows amount of gold sold to Bank of Mongolia, including the share of gold sales by artisanal miners. Table 4 referred to the total amount of gold sold to Bank of Mongolia. While artisanal miners sold 0.67 (675kg) tonnes of gold to the Bank of Mongolia in 2008, this number decreased significantly to 0.003 (3.2kg) tonnes in 2013. Particularly in 2010, with the adoption of the long-named law, amount of gold sold by artisanal miners declined drastically. This means that gold sales by artisanal miners shifted towards informal practices. According to Bank of Mongolia, in 2013 two individuals sold 3.2 kg of gold while in 2014, 896 individuals sold 3200.0 kg of gold. Compared to 2013 in 2014 the number of individuals who sold gold to Bank of Mongolia was 448, the amount of gold sold increased by 1000 times. In January 2014, the amendments to the ‘Minerals Law’, there was a decline in royalty in gold production, resulting in a more transparent forms of gold trading and a significant increase in gold purchased by Bank of Mongolia.

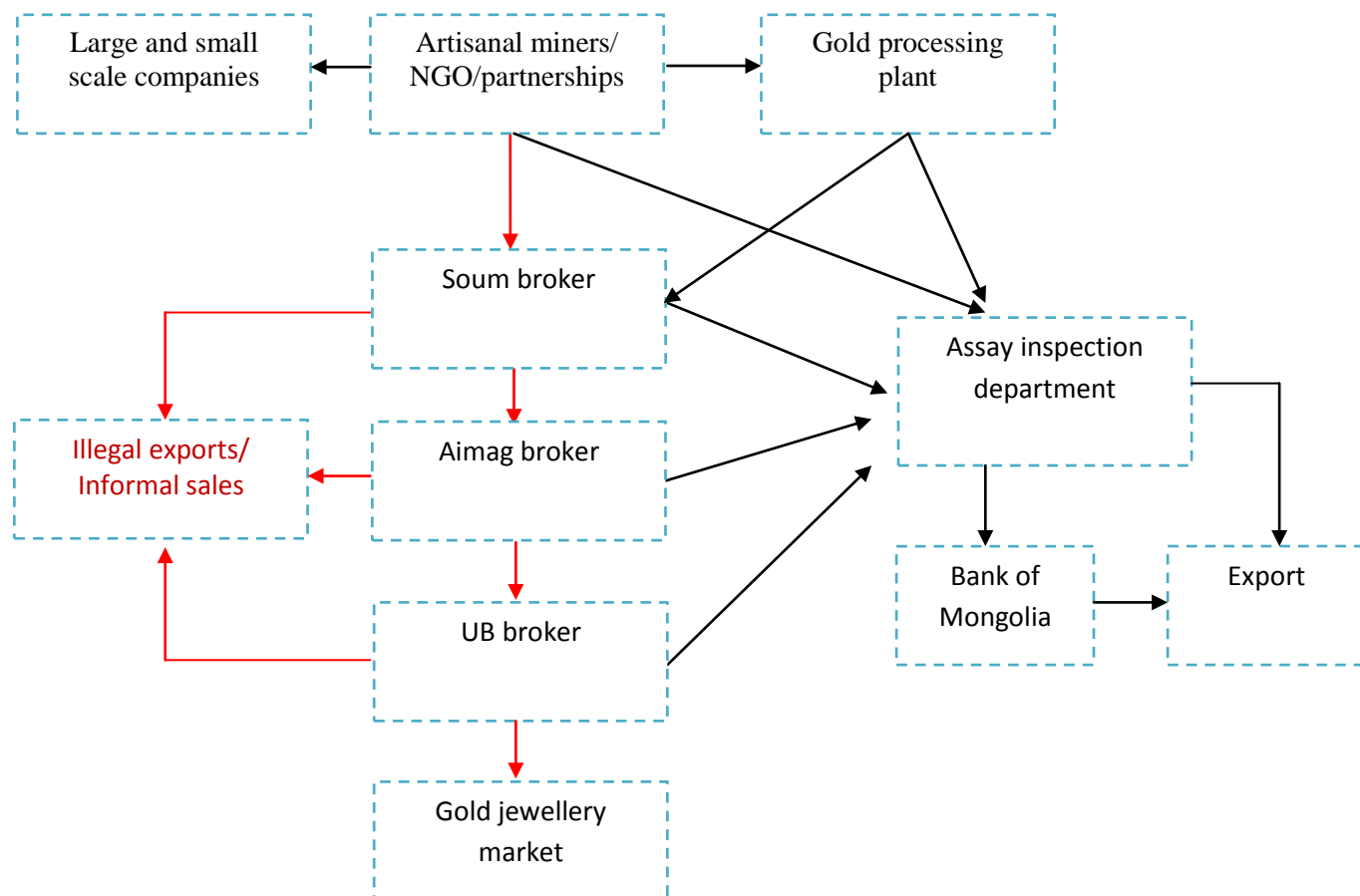
As per above table, share of gold produced by artisanal miners and sold to Bank of Mongolia was 9.5 percent in 2008, decreasing to 0.1 percent in 2013. In 2014, a total of 3.2 tons gold was sold to Bank of Mongolia, 25.1 percent derived from broker individuals and artisanal miners. This indicates that the trend in informal gold sector started to become more formal with the growing share of artisanal miners.

While the amount of gold sold to Bank of Mongolia among artisanal miners was 1.5 tons, broker individuals and artisanal miners sold 3.2 tons of gold, indicating a trend in which in order for entities to avoid paying taxes on income, they tend to sell through individuals. It is worthwhile to mention the absence of an organization which consolidates details on the amount of gold used for jewellery on the market, types of jewellery and its prices, as well as unified information database on the amount of gold sold on the market by artisanal miners and brokers.

5.3. *Current state of artisanal gold supply chain*

The current state of artisanal mining and gold supply chain is mainly conducted through artisanal miners and brokers at various levels of the gold supply chain. Gold supply and distribution channel can be seen from the below figure:

Figure– 1: Current state of artisanal gold mining and supply chain



Source: Research team

The participants in the artisanal gold supply chain are follows:

- Artisanal miners,
- Gold traders of soum, province and Ulaanbaatar,
- Assay inspection department of the Mongolian Agency for Standardization and Metrology,
- Bank of Mongolia.

In accordance to 'Regulation on artisanal mining', artisanal miners, partnerships have the responsibility to sell mined gold to legal subjects that have the right to purchase. This includes the Bank of Mongolia and license holders. Companies with special licenses for gold mining exploration and artisanal miners are able to determine assays at state administrative department responsible for assay inspection and submit gold to Bank of

Mongolia. For those artisanal miners who do not hold special licenses, there is an absence of legal basis to regulate sales of gold mined through such forms.

Only those entities and artisanal miners that hold special exploration licenses register through Bank of Mongolia and Assay Inspection department for export. In this case, it is obliged to pay gold basic royalty rate of 5 percent, additionally excess royalty of 5 percent, total of 10 percent towards the state budget hence submit directly to the Bank of Mongolia.

The gold price is set by Bank of Mongolia based on the previous day's LBM gold price quotation, less USD 3 per ounce as the refining charge and converted to Mongolian MNT according to the USD/MNT exchange rate, announced by Bank of Mongolia.

However, according to Civil Law gold brokers are legally allowed to purchase gold thereby take part in trading, buying gold derived from artisanal mining. Artisanal miners are organised around partnerships, creating dual and tripartite agreements with local Governors for purpose of undertaking gold exploration activities, with soum brokers providing the largest share of mined gold. Three tiers of brokers at soum, aimag and Ulaanbaatar levels purchase mined gold and submit to Bank of Mongolia.

Due to reasons such as lacking the resources to keep gold mined on the day, risk of incurring transport and other costs as well as safety reasons, artisanal miners often sell on to brokers nearby mine sites or soum brokers, while soum brokers sell to aimag, with aimag brokers selling to city brokers who have quality and assay determined through the Assay Inspection agency, then submitting to the Bank of Mongolia or sell jewellers. But the local traders buy gold at price lower 10-15% from the price, settled by the Bank of Mongolia. The average is around 55000 MNT per ounce at mine site. At the remote sites from Ulaanbaatar, where happens lack of information regarding the settled price and sales units etc., the local traders deliberately pervert the artisanal miners, using Chinese gold units such as lanandtsen, and buy gold at much lower prices. Moreover, it is common practice to buy gold by barter trade in exchange of consumer goods, and advance payment for procurement of gold to be mined.

As said the local go-between man, working at trade center of Western zone in the Bayankhongor province center, the traders operating at site, county and province levels sell gold illegally thorough local Chinese traders and nearby located border points to China. They sell gold to Chinese traders, based on reasons as to avoid tax and imposed

fees, the numerous bureaucracy stages, and the time lost thorough the government organizations.

The gold sales are going like this, since the assayinspection service and local branch of Bank of Mongolia are not available at the local level for the artisanal miners at the time being. Above conditions are practiced as presently artisanal miners do not have direct access to services offered by the Bank of Mongolia and Assay inspection department.

According to the ‘Regulation on artisanal miners’,the location where activities for gold ore production by artisanal mining shall be defined together by Ministry of Mining, local government Citizen’s Khural, specialised inspection agency, these parties are obliged to provide joint support. Currently there are gold ore production sites located in Tuv, Bayankhongoraimags.These production facilities aim to provide fair mining and trading of gold through the purchase gold mined by artisanal miners, concentrate and sell.

As part of policy to introduce mercury-free technology, state and non-government organizations and with support by the Sustainable artisanal mining project, gold processing plants have successfully been created in Bornuur soum, Tuv aimagand Byan-Ovoosoum in Bayankhongor.

Red line indicates gold sales route, green indicates assay inspection channels, black refers to management line, while the dotted lines indicate organizations that have the potential but do not yet participate in the gold supply chain.

Ministry of Mining

The Ministry of Mining is the state central administrative organization defining mining sector policy, as well as monitoring policy implementation and facilitating coherence of parties involved. Within this framework, the Ministry aims to achieve the following strategic objectives, including:

- Formation of mining sector laws, policy and long, medium term strategy;
- Organization and coordination of implementation of laws, policy, programmes and projects;
- Monitoring, inspection of laws and regulations, carry out monitoring analysis during policy implementation, make evaluation in outcome and make conclusions.

The Strategic policy planning department beside the Ministry of Mining is responsible for artisanal mining issues, together with Policy implementation department offers policy implementation in artisanal mining, along the monitoring-evaluation and internal audit department offers review in implementation of such policies.

Minerals Authority

The Minerals Authority supports efforts for development of State policy in development of geology and mining sector, offer efficient and fair services to investors and consumers, acting as an implementing Agency under the Ministry of Mining and through implementation of State policy assist in efforts to increase the effects deriving from minerals for the benefit of national economic development, within the context of the Minerals Law, Law on Land, procedure for their implementation, Government action plan and Ministry of Mining policy paper.

The Minerals Resource Authority provides relevant information on artisanal mining, implementation of policy document, provision of services for special licenses. Employees at the Mining division carry out duties for implementation of mining policy, study areas where gold exploration can be undertaken, based on needs of local state

administration organizations confirm information on gold exploration. According to Mongolian minerals law, the Minerals resource authority performs the right of approving mining licence holders' feasibility study, annual mining work plan, environmental impact assessment and gold mining activities.

Bank of Mongolia and Commercial banks

The Bank of Mongolia is the legally responsible organization for implementation of state monetary policy, with the objective to provide stability in the national currency.

According to the Treasury Law of Mongolia Bank of Mongolia is responsible for forbuying and selling, storing the gold and refining gold. . The Bank of Mongolia carries out gold export activities, but does not exercise its right to sell gold at domestic market. Bank of Mongolia also issues special permission to Commercial banks to buy and store gold, but Commercial banks do not yet exercise these rights in realising gold sales.

Bank of Mongolia subsidiaries operate in 12 aimags including Arkhangai, Bayan-Ulgii, Bayankhongor, Khovd, Dornod, Dundgobi, Govi-Altai, Khentii, Khuvsgul, Sukhbaatar, Uvs and Zavkhan, while smaller sections operate in 5 aimags in Darkhan-Uul, Orkhon, Uvurkhantai, Dornogobi, Umnugobi. The branches and sections act to facilitate inter-bank transactions, while do not yet provide loans, gold purchase or gold storing activities.

Bank of Mongolia is verifying assay result of smelted and refined gold by the precious metal lab at the Assay inspection department is arranging the gold payment and also charging 2.5% of gold royalty rate and transferring to the Taxation department's gold sellers' account. Gold price is set by Bank of Mongolia based on the previous day's LBM gold price quotation, less USD 3 per ounce as the refining charge and converted to Mongolian MNT according to the USD/MNT exchange rate, announced by Bank of Mongolia. Smelted and unrefined gold is sold at a price 0.2-0.25% lower than the world gold price. The above price margin is covering storing, transportation and refining cost of the Bank of Mongolia.

Standardization and Metrology Agency

The Assay Inspection Department of the Mongolian Agency for Standardization and Metrology carry out control of the certification process of precious metals and jewelry samples and assaying, which are mined, produced and sold in Mongolia. This

organization has the right to conduct the assaying of precious metals at local levels, but this right is not being implemented due to absence of financial possibilities, necessary equipment as well as proper laboratory facility.

The government of Mongolia issued the resolution in 1998 No 33 and approved precious metal and stones quality inspection rule. The inspection Department of the Mongolian Agency for Standardization and Metrology assaying gold, registering and monitoring it. In connection with absence of local gold buying bank local branch and assay service, artisanal miners are selling their small amount of gold in Ulaanbaatar.

Local government

In line with the ‘Procedure on artisanal mining’, Governors and Citizen’s Representative Khural at soum and district levels are regarded as the primary level state organizations directly engaged in activities related to mining and trading by artisanal miners, forming agreements with artisanal miners and partnerships. Local Citizen’s Khural exercise the right to take part in the activities of artisanal miners through providing assistance in defining mineable locations and their coordinates through sending permission to the Minerals Resources Authority and monitor implementation.

Whereas based on the decision by state organizations and the soum Citizen’s Khural, Governors relate to artisanal miners through signing of 3-party agreement for artisanal mining. Although it is the responsibility of Governors to provide information to the government regarding artisanal mining, this function is not been addressed.

Artisanal miners, partnerships and non-governmental organizations

Since 1990 when individuals began artisanal mining, they were referred to as illegal or formal artisanal miners, individual miners, informal workers, in the absence of formal legal coordination, state support policy has not been uniform.

In addition, the activities of artisanal mining are regulated by clause 4.1.2 of the ‘Land law’ and the clause 481.1 of the ‘Civil Law’ became legal regulation for support of activities of citizens, organized in the form of unregistered partnership for the purpose of ‘mineral mining in the areas of mineral occurrences, waste and cut-off grade reserves, and economically not feasible low grade deposits, that are licensed for artisanal mining’. Artisanal miners make considerable own effort in creating employment, while providing for their families and contributing to a real increase in local production, services and cash

supply, gathering certain amount of fees and taxes to the local government. According to the ‘Law on determining income for self-employed’artisanal miners have the obligation to pay 53.0 thousand tugriks per month.

Gold brokers:

Gold brokers carry out activities of buying gold from artisanal miners and selling gold to the Bank of Mongolia in the frame of Mongolian Civil Law, other related laws and regulations. They use their own funds to purchase gold and trade for profit, are subjects who take full risk when undertaking such trading activities. Due to an absence a Bank of Mongolia branch and assay inspection services in rural areas, to support the activities of artisanal miners and lessen their risk, brokers purchase gold from artisanal miners, then transport to Ulaanbaatar city, store, and after having determined the assay, perform broker duties in selling to the Bank of Mongolia.

7. IMPLEMENTATION OF ARTISANAL POLICY DOCUMENT

In this chapter, implementation of government policy documents regarding gold sector, particularly the artisanal mining sector has been considered. Although previously there have been State programm implemented for the development of the gold sector, there is not yet an independent policy document for the development of artisanal mining. Since 1990, a number of important decisions have been made for the improvement in artisanal gold mining and supply chain, and its legal environment, which have resulted in boosting the development of the gold sector.

“Gold-1” programme: during 1992-2000, as a result of implementing “Gold-1” programme it was able to attract investment, annual gold mining output increased from 0.7 tonnes to 11 tonnes, with the development of placer gold mines based on private sector, considerable amount of tax revenue generated to state budget and contributed to the recovery of the gold sector. During the initial years, rehabilitation and environmental protection measures were not implemented.

During 1995-1997, works such as environmental impact assessment, technical rehabilitation were carried out by gold mining companies and organizations.

In addition, due to formation of waste piles around various placer gold mines, artisanal miners begun to work around Sharyn-Gol, Zaamar and Bayankhongor gold mines.

“Gold-2” programme: A new era for gold production commenced during the next decade from 2000-2010, for the first time witnessing national production to 24.1 tonnes with almost 40 percent deriving from primary gold deposits. However, it is understood that the severe decline of production during the last four years of the same period set base for the implementation of the ‘Law on windfall tax profit’.

Government’s action programme during 2012-2016 includes measures for a more transparent gold production, storage and sales. To implement this plan, a working group organized beside the Ministry of Mining has achieved considerable work in undertaking preparation work for the establishment the Minerals Commodity Exchange.

The Government of Mongolia issued Resolution No 211 for ‘Establishment of Minerals Commodity Exchange’ to be set up based on domestic and foreign organizations partnership with 100 percent private investment, draft of regulations to be prepared for regulating the commodity exchange.

The Ministry of Mining, jointly with Mineral Resource Authority is planning to complete and submit ‘National Gold sector development programme up to 2025’ to Mongolian government for future approval. In this program should be included and implemented issues regarding improvement of artisanal mining, its legal environment, operations by artisanal mining in the designated areas, development of gold mining, storing, transporting and sales regulations, creating an integrated data base for gold mining, sales, assaying and export etc.

The Artisanal Mining Association was established in 2013, and it is acting in broad aspect for the development of sustainable artisanal mining. As the result of the Association’s activities increased the number of local non-governmental artisanal mining organizations and it organizes forming partnerships of artisanal miners at local level and represents their rights and interests.

8. ARTISANAL MINING LEGAL FRAMEWORK

Current situation of legal environment with regard to artisanal mining and sales are considered in this chapter. Although the enactment of the ‘Windfall profits tax’ by Parliament on May 12, 2006 resulted increased considerably tax burden on gold producers, sharp decline in the amount of gold sold to the Bank of Mongolia and commercial banks, having a negative impact on foreign exchange reserves. Despite repealing the law in 2001, the enactment of the long-named law resulted in pushing to stop many gold exploration and mining activities.

In the recent years, a number of important decision has been made for the improvement in the artisanal gold mining and supply chain, and its legal environment, which have resulted in boosting gold sector development.

“Regulation of artisanal minerals mining” was approved by the resolution of Government on 1st of December 2010. For the implementation of this regulation, a model of contract of three parties between local authority, license holder, and a partnership has been issued for approval. In this contract, conditions such as mineral mining, sales of minerals mined by the partnership according to the related laws and regulations, and minerals sales to be made to a legal entity with respective rights. But, the some provisions regarding gold mining and its sales are not being implemented.

“Tax on the self-employed citizens income, which is not possible to be determined for the current month” on 21st of October 2010. It is laid a foundation for creating a legal environment for legally running an artisanal mining by the Amendments made to “Minerals law” and “Land Law” on 1st of July 2010.

In addition, the activities of artisanal mining are regulated by the clause 481.1 of the ‘Civil Law’ became legal regulation for support of activities of citizens, organized in the form of unregistered partnership for the purpose of ‘mineral mining in the areas of mineral occurrences, waste and cut-off grade reserves, and economically not feasible low grade deposits, that are licensed for artisanal mining’.

Artisanal gold mining and sales’ issue has been added in the Amendment to the Minerals law of Mongolia. Meanwhile, the previously existed lowest weight limit of gold sales has been eliminated to support and increase formal gold sales.

A revision to the clause 35 of the “Minerals law” was made on 24st of January 2014. According to this clause, in case gold mining entities and artisanal miners sell their

produced gold to Bank of Mongolia or a commercial bank, that have right to buy gold, the right was granted by Bank of Mongolia, the royalty fee is to be 2.5%, and the market price increase excess royalty fee is not applied. The above estimation shows that, the reduction of gold royalty fee from 10% to 2.5% has supported the artisanal miners. Moreover, gold mining and sales by artisanal mining became more transparent, and their contribution to the national treasury in Bank of Mongolia is considerable increased.

By the Session of the Mongolian Government of 11 March 2015, Resolution №94 of “Some measures for increasing the gold mining and intensifying the economy” was approved, and it includes a clause to “prepare a proposal and implement to strengthen the Assay inspection department of the Mongolian Agency for Standardization and Metrology, and improve the registration systems”.

9. CONTRIBUTION OF ARTISANAL GOLD SUPPLY CHAIN TO MACROECONOMIC DEVELOPMENT

In this chapter, the contribution of artisanal gold supply chain to the state and local government budget as the gold royalty rate, taxes and fees imposed on personal income, direct impact on the Mongolian currency reserves and import trade reserves, and creating jobs and local region development, made by the artisanal miners are considered.

9.1. Gold royalty rate

To estimate the gold royalty rates made by the artisanal miners to the state budget, should be used income taxes, payments and fees imposed during 2008-2010. Based on official information of Ministry of Mining, Ministry of Finance and Bank of Mongolia, gold royalty rates have been estimated.

As of the Bank of Mongolia gold settlement on May 4, 2015, and royalty rate of 10% in 2013, it is estimated that during 2013 the artisanal miners sold to Bank of Mongolia 3.2 kg gold and paid total of 20.2 million MNT royalty fee. During 2014 sold 3200 kg gold, and at gold royalty rate of 2.5%, paid 6.0 billion MNT.

Table – 5: Artisanal miners’ royalty rate to state budget

Indicator		2008	2009	2010	2011	2012	2013	2014
Gold sales to Bank of Mongolia, tonnes		7.1	5.0	2.1	3.3	3.3	6.0	12.7
Traders’ gold sales to Bank of Mongolia, kg		675.0	460.0	38.0	215.0	16.0	3.2	3200.0
Gold price	usd/oz	800.0	1000.0	1200.0	1400.0	1800.0	1400.0	1200.0
	000 MNT/gram	39.0	42.0	51.0	72.0	70.0	63.0	75.0
Royalty rate, %					10%	10%	10%	2.5%
Traders’ royalty rate , million MNT					1548.0	112.0	20.2	6000.0

Source: Study team’s estimates

Table 6 provides estimates for the gold royalties derived from artisanal miners, in 2011, 215 kg of gold was sold to the Bank of Mongolia, contributing 1,548.0 millionMNTto the state budget, while during 2012-2013 the amount decreased from 112 to 20.2 million MNT, however in 2014, 1200 kg of gold was sold, amounting to 6,000 million MNT in taxes.

The decrease of royalty rate on gold from 10% to 2.5% has supported the artisanalminers and gold sales, artisanal miners’ activities became more transparent. The above estimate shows that gold mined by the artisanal miners contributing to the national treasure of the country.

9.2. *Personal income tax*

According to the clause 5.1.16, chapter 5 of the law “Tax on the self-employed citizens income,which is not possible to be determined for the current month”, each member of artisanal gold mining is responsible for payment of 53.0 thousand MNT for income tax.

Estimates have been carried out based on “Joint report on artisanal miners’ study” by the Mongolian National Statistical Office and Swiss Development Agency, estimates and results by other studies.

1.The following has been estimated: 95% of gold mined by the artisanal miners are sold at site to the traders.

2. In 2014, 30 thousand artisanal miners sold to Bank of Mongolia total of 3200 kg gold. Assuming that Bank of Mongolia bought 1 gram gold for 75000 MNT, and traders’

price at site is 15% lower at 65000 MNT per gram, the artisanal miners total income is estimated at 208 billion MNT. 3. One artisanal mine in average gains income of 1.2 million MNT per month or more than 6.0 million per year.

3. Taking into consideration that, one artisanal miner’s active work period per year is 4 months, and he pays 212 thousand MNT for income tax, and total of 30 thousands of artisanal miners are covered in income tax payment, then the total income tax payment in 2014 by artisanal miners should be around 6.4 billion MNT. But assuming that 10 per cent of artisanal miners would pay income tax, then the total income tax is estimated at 159.0 million MNT. These estimates are made, since there is no available information from government organizations regarding the personal income tax payment made by artisanal miners. It is necessary local tax organizations to record information, regarding personal income tax payment made by artisanal miners at local levels and submit to central organizations.

4. 65.0% of artisanal miners are covered by insurance, and of which, 76.8% covered by health care insurance, 20.8% by social insurance and 2.3% by other insurances.

5. More than 10% of these artisanal miners have made investment and more than 50% of the investment is made for purchase transportation equipment, 30% is in production equipment.

9.3. *Impact on increase of foreign exchange reserves*

Mongolian foreign currency reserves in 2012 was USD 3.6 billion, and in 2014 USD 1.4 billion, which is lowered by 0.8 billion or 35%, compared to the same period of previous year, and compared to 2012 it is decreased by 2.6 times.

Table – 6: Artisanal miners’ gold sales and foreign exchange reserves

Indicator	2008	2009	2010	2011	2012	2013	2014
Artisanal miners’ gold sales, USD million	17.3	14.7	1.4	9.6	0.9	0.14	122.9
Foreign exchange reserves in Bank of Mongolia, USD million	637.2	1145.2	2091.2	2273.9	3629.2	2389.2	1398.1
Percentage of artisanal miners’ gold sales in foreign exchange reserves	2.7%	1.3%	0.1%	0.4%	0.0%	0.0%	8.8%

Source: Bank of Mongolia, 2014

According to the table 7 artisanal gold sales reduced from 17.3 million USD to 0.14 million USD during 2008-2012, increased shaply in 2014 and reached to 122.9million USD. Percentage of artisanal miners’ gold sales in foreign exchange reserves was 2.7% in 2008 and dropped to nil during 2012-2013 and increased to 8.8% in 2014. The reduction of the gold royalty rate from 10% to 2.5% has supported the artisanal miners and gold sales, contributing to the national treasure of the country.

9.4. Impact on import trade reserves

In the international trade and financial practice, one of the main indicators of the economic capacity of a given country is that how many weeks of import reserves can be covered by the foreign exchange reserves of the Bank of Mongolia.

Table – 7: Artisanal miners’ gold sales and import trade reserves

	2008	2009	2010	2011	2012	2013	2014
Total import, USD million	3244.5	2137.7	2137.7	3200	6598.3	6357.8	5236.7
Artisanal miners’ gold sales,USD million	17.3	14.7	1.4	9.6	0.9	0.14	122.9
Percentage of artisanal miners’gold sales in total import reserves	0.5%	0.7%	0.1%	0.3%	0.0%	0.0%	2.3%
Import trade reserves by week	0.3	0.4	0.0	0.2	0.0	0.0	1.2

Source: Bank of Mongolia, Customs General Administration, 2014

Referring to table 8 percentage of artisanal miners’gold sales in Mongolian total import reserves was 0-04% during 2008-2013 and increased to 2.3 % in 2014 or artisan gold miners sales revenue covers Mongolian 1.2 weeks of import trade reserves.While from 2009 Mongolian import increases steadily and artisanal miners’ sales revenues dropped during that time which effects to the reduction of artisanal miners’gold sales in the total import reserves.

The share of artisanal miners' gold sales in the country's total import was 0 in 2013, but it has increased to 2.3% in 2014. It is estimated that by artisanal miners' gold sales, it is possible to make import trade reserves of 1.2 weeks for Mongolia.

9.5. Job creation

As the study shows, most of the artisanal mining members are people, which are not employed, work space is not available, eager to earn additional income, lost their livestock, and do not have other income sources. 51.6% of these people do not have stable work, 32.4% are interested in additional income, 12.0% have lost their livestock and no other income sources, and 4.0% have other reasons to be involved in artisanal mining. Most of the artisanal miners spend their income for the sustenance of the family, creation of work space, student tuition fees for their children and others.

9.6. Local social development

Some of the artisanal mining members spent certain part of their income from their activities in the development of local work spaces, in contribution to the local social development, and in material and financial donations in local development and etc.

It can be concluded that as side effect of artisanal mining, at the local levels, it is observed improvement of local trade and service activities, increase in purchase and procurement, and increase in payment of taxes and fees to local budget.

10. DIFFICULTIES AND PROBLEMS FACED BY ARTISANAL GOLD MINING AND SUPPLY CHAIN:

In this chapter, difficulties and problems faced by artisanal gold mining and supply chain, including participants in the gold supply chain, artisanal mining legal environment and its contribution to economic development are considered. As shows the situational analysis made on the artisanal mining and gold supply chain, the following difficulties and problems are still faced.

10.1. Artisanal gold mining and supply chain:

- With the sharp decrease of placer gold reserves, operations on alluvial mining are being closed and some are working on mine closure. In connection with this, the possibilities of artisanal mining operations on alluvial deposits are limited and the only option of hard rock gold operations is remaining.
- On the other hand, in connection with the delay in implementation of so called “Long named Law”, the artisanal miners illegally introduce to areas which are licensed for legal entities and mining gold. It is observed broadening tendency of this kind of activities in the current harsh economic situations.
- Therefore, to limit this tendency and to support artisanal mining, the Mineral Resource Authority needs to take urgent measures to identify for allocating designated areas for artisanal mining.
- As of 2014, only 17.6% of artisanal miners are joined to partnerships. In order to strengthen those positive results taken by local authorities and “Umbralla Association” are being implemented slowly.
- Establishment of gold ore processing plant in Bayankhongor, Tuv provinces was a notable step in contributing transparency in gold sales, as noted within the ‘Procedure on artisanal mining’ provide stable operations of facilities offering commonly used mercury-free technology for gold ore processing at the local level, as well as the need for state support for gold ore processing and refining activities.
- More than 90% of the artisanal gold miners sell their gold to the local traders at price 15-25% lower than market price.
- In connection with absence of local gold buying bank affiliation and assay service, artisanal miners are facing problems for selling their small amount of gold in

Ulaanbaatar, such as transportation cost, continuous need for cash payment, gold preservation, loss of time, and transportation safety and etc.

- The local traders transport their bought gold to Ulaanbaatar, make assaying and sell it to Bank of Mongolia. They bear additional costs such as transportation, assaying, bank transfer and others, and may face problems as not full payment, delay in payment. Therefore, traders sell their gold to Chinese traders by offered by them high price.
- The artisanal miners are lack of information regarding gold market price, quality and gold grade, assaying, Bank of Mongolia and Assay inspection authorities do not supply such kind of information.
- Bank of Mongolia has already granted right to commercial banks. These commercial banks are not implementing their right to buy gold, and it is connected with no providing the preparation basis for namely, Bank of Mongolia has not given directives to commercial banks to buy gold locally, and absence of related regulations etc.
- Because of the clause 17.1 of the “Tax Law of Mongolia”, which states that “in case of selling more than 45 kg gold or sales income is more than 3.0 billion MNT, tax of 25% to be paid”, the gold mining companies are interested in selling their gold thorough traders, and it has in general negative impact on gold production and its transparency.

10.2. Organizations involved in the gold sales and structure :

- Differences in statistical information and reports regarding mined gold, assayed gold and gold bought by Bank of Mongolia, weak interrelationship between governmental organizations, regulating gold mining and sales, and difficulties in collaboration.
- Not established integrated data base for gold reserves, gold mining, sales and exports, collaboration of Mining Ministry, Mineral Resource Authority and Assay Inspection Department of the Mongolian Agency for Standardization and Metrology needs to be improved. Therefore, the possibilities of making optimized decision, based on gold reserves’ use , gold mining, sales and export information for the planning and development of the gold sector, intensives for investment, and improvement of the legal environment are limited.

- Procurement of gold by local affiliates of Bank of Mongolia and commercial banks that have the granted right of buying gold, enable and support increasing the national treasury, reducing the illegal gold sales and gold sells of artisanal miners to a bank.
- There is need to increase experiences of local assay inspectors and establish laboratories that can carry out preliminary estimates of gold assayers in provinces where artisanal gold mining activities are concentrated

10.3. Artisanal mining legal environment:

- Mining sector legal environment is not stable currently. It is not important whether tax rate is high or low, more important tax rates are stable and will not be changed again, which will encourage foreign investment, local producers and artisanal miners.
- In the frame of “Mineral mining by artisanal miners” regulation, approved by government resolution No308 in 2010, the responsibilities of participants in the 3-party agreement are weak and unclear, specifically the provision of gold sales are undefined.
- It is possible to include legal provisions related to artisanal gold mining and sales in the “National gold sector development program up to 2025”, which is being prepared by the Ministry of Mining and Mineral Resource Authority.
- The Ministry of Mining and Financial Regulatory Commission are making the preparation work for the establishment of “Minerals Commodity Exchange” and in frame of this, there is possibility to include the legal provisions for establishment of gold sales exchange.
- Today, still is used the “Regulation of gold mining, beneficiation, washing, transfer, preservation, security and transportation” made 1993. This regulation is to be renewed, including issues related to artisanal mining, assaying at site and locally, preservation, and procurement, which will support the artisanal gold mining and sales.

10.4. Difficulties and problems on improving contributions of artisanal gold mining and supply chain to macroeconomic development:

- The decrease of the royalty fee of gold mining entities and artisanal mining is supporting the increase in Bank of Mongolia gold procurement, improvement in foreign exchange reserves for import trade, and local development of society. But gold companies to avoid the tax payment, sales of mined gold thorough artisanal miners and traders are still exists.
- Most of the operating 30 000 artisanal miners are not covered by the personal income tax. Most of them are operating on alluvial gold deposits, high migration movement among them, and not registered in the local registrations. A few of them are joined partnership operations.
- The personal income tax of 53 thousand MNT per month for artisanal miners is considered comparably high amount for them. To be consistent with reality, it should be made a regulation for reducing the personal income tax for artisanal miners or to be paid by the partnership structure for their members.

11. POLICY RECOMMENDATIONS TO IMPROVE ARTISANAL GOLD MINING AND SUPPLY CHAIN

The following policy proposals and recommendations for improvement of artisanal gold mining and supply chain is considered in this chapter.

- ✓ Option 1: Creation of one-stop service at aimags, soums where gold ore processing plants and artisanal mining is concentrated,
- ✓ Option 2: Creation of gold commodity exchange

Based on through analysis of these options, choosing the most feasible option or implement these options through stages. Creating a gold commodity exchange will require 2-3 year preparation among which it is possible to create a one-stop service dedicated for gold trading.

11.1. Option 1: Creating a one-stop service in aimags, soums where gold processing plant and artisanal mining activities are concentrated.

Choosing this option means coordinate the cooperation among once-stop services for gold ore processing plant, gold trading local state organizations, umbrella associations, with the primary aim to bring closer services to artisanal miners and provide them with registration, information and training.

11.1.1. In the frame of improvement of artisanal gold mining and supply chain:

- The Mineral Resource Authority to identify the assigned areas for artisanal mining for gold, distribute together with the local authorities, and to support and give assistance in concluding the 3-party agreement;
- “Umbrella Association” and local organizations to assist in the involvement of artisanal miners in partnership structure, to facilitate their registration, and to maintain for the coverage of artisanal miners and partnership members by the personal income tax system;

- To improve operations of gold ore processing plants, and based on these plants, to study possibilities and implementation of gold smelting facilities and gold procurement branches at local levels;
- Bank of Mongolia, together with the Mongolian Agency for Standardization and Metrology to take measures for providing assay services and establishing local commercial bank affiliates for the procurement of gold at local regions.

11.1.2. In regard to organizations involved in the gold sales and structure:

- To improve the coordination between the Ministry of Mining, Mineral Resource Authority, Bank of Mongolia and the Mongolian Agency for Standardization and Metrology regarding to the artisanal gold mining activities, to issue integrated information related to gold reserves, mining, procurement and exports, further to create an integrated data base in relation to gold mining and sales as well;
- To improve the employees' professional skills of Assay inspection department of the Mongolian Agency for Standardization and Metrology, to equip the laboratory with proper equipment, and to make preparation for providing assaying services locally;
- National Statistical Office of Mongolia to take measure to include a sub-chapter in the “Statistical Bulletin”, which shows gold mining, sales , and contribution to the social and economic development by the artisanal mining.

11.1.3. Regarding the legal environment of artisanal mining:

- To make amendments to the regulation of “Minerals mining by artisanal miners”, and in the frame of this regulation to make additional regulatory provision to the 3-party agreement in relation to gold sales;
- To study the possibility of establishing a Gold purchase exchange, and create a legal environment for gold purchase exchange on national and regional levels;
- To issue and implement regulation for procurement of gold mined by artisanal mining locally;
- To study international practice for the possibility of passing a separate law for regulating the activities of artisanal gold mining and sales;
- Bank of Mongolia and related governmental organizations to study the possibility of introducing registered gold trader, to arrange its implementation, training and to establish a system for incentives;

- To include additional provisions in the “National gold sector development program up to 2025” for regulating of artisanal gold mining and sales activities.

11.1.4. Difficulties and problems in boosting contribution of artisanal gold mining and supply chain to macro-economic development:

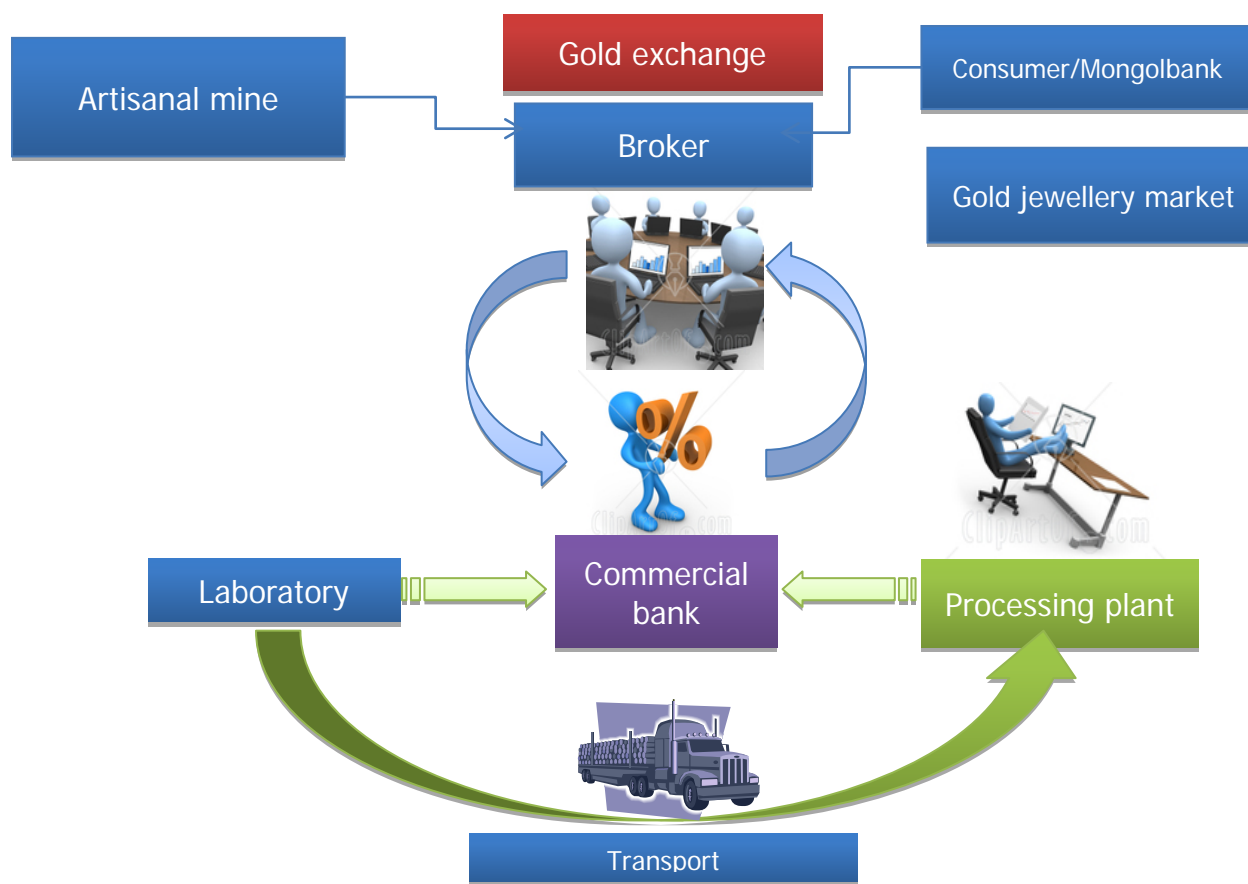
- To create an incentive system for the artisanal mining, supporting gold sales to Bank of Mongolia;
- To expand the measures for the coverage of artisanal mining by the personal income tax system, to study the possibilities of decreasing the income tax for the partnership members.

11.2. Option 2: Creation of a gold exchange

The reform Government's action programme during 2012-2016 includes measures for a more transparent gold production, storage and trading, and the Government of Mongolia issued Resolution 211 for the 'Creation of Minerals Commodity Exchange' based based on 100 percent private investment through domestic and foreign joint ventures, and the drafting of regulations for commodity exchange are somewhat major steps to indicate that the legal environment for creation of a gold exchange are in place. Alternatively, compared to other minerals products, the infrastructure for creating the gold trading exchange are nearly ready. Infrastructure for the exchange include subjects such as laboratory, storage, trading center, logistics, broker, user and artisanal miners.

Bank of Mongolia local branches and certified commercial bank branches can handle gold storage and payment issues. Local assay inspection units can be responsible for assay and quality determination. The term 'users' refers to Bank of Mongolia, export buyers and gold jewellery market users. Gold transport logistics and safety issues may be supported by the private sector and this practice is already set up in Mongolia. For instance, companies such as 'NTR Metals' have encountered much experience in this regard. In effect, the gold exchange qualifies refined gold through assay inspection

Basic gold trading function include concluding an agreement, payment centres carry out double monitoring, facilitating efficiency in payment processing, after which logistics and insurance services are introduced.



The option offers several advantages including enabling participation of all parties, including citizens. Creation of a commodity exchange will facilitate undertaking of spot and futures contracts based on international market prices, efficient and effective services in gold trading, support knowledges, information and promotion of participants as well as many pressing issues in sub-sector of artisanal mining.

Primary aim of a gold commodity exchange is to support gold price stabilization, direct trading of gold produced by artisanal miners at market price avoiding many steps, by defining a suitable model for Mongolia.

Benefits at the macroeconomic level for creation of a gold commodity exchange include increase in electronic payments, monetary demand, improvement in tax monitoring, improvement of standards, banking, insurance, storage and logistics services at the local level, clear registration and origin of artisanal gold miners, well-defined gold prices and its quality and monitoring.

Creating a gold commodity exchange will require implementation of the following steps:

- Create legal environment of gold exchange, including development of regulations for setting up a gold exchange and gold trading regulation;
- Create a gold exchange based on private sectorsupport, set up a steering committee of the exchangefrom professional non-governmental organizations, private sector and umbrella organizations .

The decision in 2014 to decrease gold royalties from 10 percent to 2.5 percent has had a positive impact on artisanal miners, gold trading through artisanal mining became more transparent, resulting in an increase of sales to Bank of Mongolia thus contributing greatly to accumulation of the state mineral wealth.

12. CONCLUSIONS:

During the 2014-2015 Mongolian economy faced difficulties and business activities of state and privately owned companies in the mining sector have slowed down. As results of taken measures by the government in connection with the mining and sales in the gold sector, such as revising the existing laws, introducing new regulations, gold sales of artisanal miners to the Bank of Mongolia has increased and the impact and benefits to social and economic development is growing.

However, broad possibilities still exist for increasing these benefits. Because of the delay in the implementation of the Long named law, it is observed illegal operations of the gold mining companies, and the activities of artisanal mining are activating.

A number of laws and regulations on gold sector, specially artisanal gold mining but provisions on artisanal mines' gold sales are not stated in these regulations and coordinations of government and local government organizations to be improved

The following conclusions can be made based on this study:

The first priority, short term measures to be implemented for the improvement of artisanal gold mining and supply chain:

- In the areas, where the gold activities of mining, gold production and sales are focused, it is necessary to establish preliminary assaying service and gold procurement branch of commercial banks at regional centres. In the scope of these services, to issue regulations of procurement of gold, produced by local artisanal miners, preservation, transportation and assaying procedures, and registration of gold traders;
- Bank of Mongolia needs to study and implement international price settling procedures, and create an incentive system for the artisanal gold sales.

In the scope of creating a Mid-term national policy for the artisanal mining and gold sales:

- To make revisions in relation to artisanal mines' gold sales to the valid and existing laws, that are in implementation;
- To include additional provisions in the “National gold sector development program up to 2025” for regulating of artisanal gold mining and sales;

- In the scope of preparation work carried out by The Ministry of Mining and Financial Regulatory Commission for the establishment of “Minerals Commodity Exchange”, to take related measures to study the possibility of establishing “Gold sales exchange”.