GRAND ACADEMIC PORTAL
RESEARCH JOURNALS

GAP iNTERDISCIPLINARITIES
A Global Journal of Interdisciplinary Studies
(ISSN – 2581-5628)
Impact Factor: SJIF - 5.363, IIFS - 4.875
Globally peer-reviewed and open access journal.

ज्ञान: अध्ययन: परम्परा

AFGHANISTAN'S GEMSTONES SECTOR AND ITS PROSPECTS

Ahmad Shekib Popal

Ministry of Industry and Commerce, Kabul, Afghanistan
ICCR Ph.D. Scholar, SD School of Commerce, Gujarat University, India, Gujarat, Ahmedabad 380009
E-Mail: popalshekib@gujaratuniversity.ac.in, popalshekib@hotmail.com
Mobile #: +91 975 444 07 44, +93 775 153 153

Dr. Gurudutta P. Japee

Gujarat University, India, Gujarat, Ahmedabad, 380009
Associate Professor-Commerce, Head of the Department of Advanced Business Studies
E-Mail: drdutta@gujaratuniversity.ac.in
Mobile # : +91 98 79 10 90 40

Abstract

By issuing this updated paper on Afghanistan's Gemstones and Jewellery Sector, we seek to introduce institutional clarity, suggest reforms to the governance arrangements and plans for the Afghan gemstone and jewellery industry, and expand the range and value of gems and jewellery products produced and processed within Afghanistan. And suggests the Afghanistan government to sets out reforms and establish the infrastructure to formalize the sector and positively influence the gemstone sector value-chain from mines to markets. And develop policies to distinguish between "upstream" (mining) and "downstream" (processing and manufacturing) and help to solve gemstone present barriers to support the growth of both sub-sectors, also develop the specific policy objectives, and policy responses they require, and set-up key roles for industry and stakeholders to well-sequence the value added or value chain development for the sector.

Keywords: *Generate employment, improve gemstone conditions, Increase value added, Increase government revenues, Improve production and marketing.*

To achieve these objectives, we suggest the Afghanistan Government to intends the development of Afghanistan's gemstone resources to (1) Designed and secure the maximum benefit for its citizens, through increased gemstone cutting and polishing, with resources being used primarily to promote sustained economic growth for both Afghan men and women, (2) Based on free-market competition, including eliminating as far as possible the smuggling of gemstone mineral products, to secure value, fairness, and integrity, and (3) Develop laws, rules, and regulations that are simple, clear, understandable, and fairly enforced with simple procedures and design training that will help lead to greater security of tenure, less illegal mining activities, and less corruption.

EXPECTED OUTCOMES

The key outcomes of the Government Action Plan for Gemstones will be: (1) Miners becoming legal, (2) Increased revenue for the government, (3) Increased processing of gemstones within Afghanistan, (4) Increased exports of both processed and unprocessed gemstones, (5) Increased employment for both men and women in Kabul and rural areas, (6) Increased production and sales of jewellery, (7) Laboratories to certify gemstone as natural and detect any treatments, and (8) Laboratories to certify silver and gold content to international standards.

2. SITUATION ANALYSIS OVERVIEW AND STATUS OF THE GEMSTONES AND JEWELLERY SECTOR

2.1 PRIORITIES FOR DEVELOPING THE GEMSTONE AND JEWELLERY SECTOR.

The Afghanistan Government) should be committed to expanding the gemstones and jewellery industry in Afghanistan. By issuing this updated paper on Gemstones and Jewellery Sector we suggest the Afghanistan Government provide a comprehensive overview of actions taken, actions needed, and long-term planning for the gemstones and jewellery industry. Also, the plans to identify mediate and long-term actions required by specific organizations, ministries, donors, stakeholders, and the private sector to be successful.

This paper on Afghanistan Gemstone and Jewellery sector is formulated in accord with the Afghanistan National Development Strategy (ANDS), the Government of Afghanistan's SME Strategy, the National Extractive Industries Excellence Program, and the Business and Strategic Plans of the Ministry of Mines and the Ministry of Commerce and Industry.
This paper is divided between mining (upstream) and cutting and jewellery making (downstream) to present a clear picture of actions needed to promote business development and employment in this important industry sector.

2.2 WORLD MARKET FOR GEMSTONES AND JEWELLERY
According to the Precious and Semi-precious stones Quarterly report 2010 (ITC 2), in recent years global jewellery industry sales were estimated to be $145 billion, of which gemstones (including diamonds) accounted for 55% of the total or USD 80 billion. Global annual sales of all colored gemstones at this time were estimated to be $8 billion. Currently, global sales of gemstones and jewellery are estimated to be US$230 billion annually, including approximately a USD 12 billion share for colored gemstones.
The USA is the largest consumer market, followed by China, India, the UK, the Middle East, and Japan in that order. **In Europe, the UK and Italy are the largest consumer markets**. India's domestic market is approximately USD$16 billion annually, but exports increase annual turnover to USD 27 billion.
India is the world's most competitive producer of polished gems and jewellery in the global market. This is due to their low cost of production and availability of skilled labor. The reduction in duties and government support to the sector has led to India emerging as the world's largest trading center for gems and jewellery. The gemstone and jewellery markets play a vital role in the Indian economy as it is a leading foreign exchange earner, accounting for more than 12 % of India's exports. It should be noted that a vast majority of India's rough materials (gemstones) are imported, whereas Afghanistan has its supply. The Indian sector is expected to grow at about 15% annually and more with the expansion into branded jewellery. Rajasthan alone claims to have approximately 100,000 skilled artisans.
Afghanistan is rapidly becoming a significant supplier of high-quality emeralds as well as rubies, tourmaline, and aquamarine to the world market. Afghanistan has an abundance of natural gemstones and is the source of some of the finest emeralds, rubies, tourmaline, aquamarine, and lapis in the world. Currently between USD 30 million and USD 80 million worth of gemstones are mined annually and recent studies suggest that the Afghan gemstone industry has the potential for generating as much as US 300M in annual revenues. Due to extremely uncompetitive royalty rates, export duties, taxes, and fees, approximately 85-90% of gemstone trading is transacted outside of government supervision and control, resulting in a substantial loss of government revenue and foreign exchange. This system is also preventing supplies of gems to be available to skilled cutters and jewellery makers because they do not want to disclose their inventory in Afghanistan.
In line with the Afghanistan Ministry of Industry and Commerce (MoIC) SME Strategy, finalized in December 2009, reforming the gemstones and jewellery sector can encourage the employment of rural poor people that have missed out on the booming economy of Afghanistan's major cities. The sector precisely matches the criteria for intervention identified in the SME Policy Strategy including (1) Domestic firms have already entered them spontaneously, (2) The sector is labour-intensive and has a strong rural presence, (3) The sector's current growth rate is high and there is ample potential to grow, (4) The financial barriers of entry are low, (5) Raw materials are accessible, (6) Many of the skills needed to be competitive already exist, (7) The technology requirements are either moderate or can be introduced cost-effectively, (8) Afghanistan has a competitive advantage and can compete selectively across the value chain.

2.3 THE AFGHAN GEMSTONE AND JEWELLERY INDUSTRY
Afghanistan's gemstone resources are distributed throughout the country from the Panjshir Valley (emeralds) to Jegdalek (rubies and sapphires), to Nuristan (Kunar, Nangahar, and Lagman,) (emerald, aquamarine, tourmaline, kunzite, and spodumene), to Helmand (fluorite), to Kandahar (amethyst), to Herat (aquamarine and tourmaline and to Badakhshan (sphene, aquamarine, spinel, sapphire, and lapis-lazuli).
Gemstone mining and associated businesses have the potential to bring sustainable employment to men and women in rural areas that are currently vulnerable to extreme poverty. Every job created in the gemstones mining industry will create at least three to five new jobs such as gem cutting, tool making and repair, jewellery manufacturing, sales and marketing, and administrative positions.
Approximately seven hundred fifty people are currently working in the Panjshir emerald mines. These activities support another twenty-five hundred auxiliary workers who supply food and water, make clothing and footwear, and provide transportation, housing, and other services. In addition, most miners are supporting their large families and extended families. Badakhshan, with its lapis mines, has more than a thousand men and women supported by the gemstone industry. In Kunar, Nangahar, and Lagman there are approximately six hundred miners. As of the date of this report, fewer than one hundred miners are working in the Jegdalek.

USAID consultants have estimated that efforts to reform the gemstone industry in Afghanistan could generate as many as 30,000 to 50,000 direct and indirect jobs. Increasing mining opportunities and value-added skills for Afghans will lead to a reduction in poverty and increase stability in Afghanistan.

2.4 RECENT DEVELOPMENTS AND CURRENT PROSPECTS

Although many of the recommended actions in the previous action plan were not implemented, over the past 3 years there have been important developments in several areas, including the following:

Mining laws and regulations:

The MOM, with support from international donors, has been working on a new mining law since 2009. A previous version of the law, developed with World Bank support, was rejected by the Afghan cabinet over concerns that it did not provide adequate protections to Afghan interests and gave away too much to foreign investors. More recently before 2021, the British Government has helped develop a new mining law to support private investments and protect the interests of foreign investments in Afghanistan while providing more adequate protections for Afghan interests.

The law included clearer provisions on transparency, publication of contracts, involvement of the communities, and increased security and protection to investors by having the exploration and exploitation license awarded in a single contract. Unfortunately, the new law does little to clarify the rights of artisanal and small miners or procedures for registering ASM operations. Moreover, the law has still not been signed. Even though it was approved by Parliament in May 2014, it was recently resubmitted to Parliament with 12 new amendments. At present, it is still awaiting final approval.

Despite efforts to reduce rates for royalty payments and export duties, the royalty rate for precious and semi-precious stones is still 15% and an additional duty rate of 11% is still required for gemstone exports. Consequently, in the absence of clear regulations for ASM mining operations, small-scale miners have continued to operate informally, exporting their products through unofficial channels via Pakistan and other countries. They continue to operate on their own, with very little or no support from the government. Although they encounter demands from official and unofficial sources at all stages from mine to market, very few royalty payments or export duties are currently being collected through official government channels.

Cutting and polishing gemstones

Previously several donor-funded projects, such as the USAID-funded ASMED project, The Trade Accession, and Facilitation of Afghanistan (TAFA) program, the GIZ NAWI program, as well as programs sponsored by the Aga Khan Foundation, The Rupani Foundation, Turquoise Mountain, and Future Brilliance, have supported efforts to train technical specialists in gem cutting and polishing operations. Following are selected examples of relevant donor-funded initiatives that have been implemented in the past few years before 2021: *(1) The Rupani Foundation established gemstone cutting and polishing centers in the Badakhshan province in 2006 and trained over 200 individuals, mostly women, in this sector. Eight training centers were established in Afghanistan with the capacity to graduate over 500 students annually, two of which also handle jewellery production supported by Aga Khan Foundation and GTZ, (2) As part of an activity with the International Gemstone Institute, the ASMED project sponsored two groups of experienced Afghan gemstone dealers in 2010 to be trained and certified in gemology in Dubai. The purpose of this training was to prepare Afghan professionals as gemstone certifiers, in a large private or government institution designed for this purpose, or as individual advisors to private gemstone businesses, (3) A joint project between GTZ and ASMED provided an association grant to support the Jewelers Guild in Kunduz City to enable them to purchase tools and equipment for their gemstones training center which offers skills training in gemstone cutting, polishing and jewellery manufacturing, (4) The ASMED project, in partnership with American Nuristani Imports (ANI) International and the Nuristan Gemstone Miners, Producers. And Traders Association, worked with miners in Nuristan to improve extraction techniques using simple tools and equipment, develop a gem cutting-and-polishing training program in Jalalabad, and provide mentorship and support to traders participating in international trade shows, (5) The World Bank, under their Sustainable Development of Natural Resources Project supported the development of a gemstone center and related technical assistance to the artisanal gemstone sector, including local artisans at Aynak in Logar province and conducted a scoping analysis for the empowerment of women in the gemstone/jewellery trade.*

Although these projects and several others provided useful training and business development support to the gemstones sector, there is still a lack of capacity in Afghanistan to provide high-quality cutting and polishing services for gemstones. Most gemstones, including almost all high-value stones such as emeralds and rubies, are still sent to other locations – including Thailand, India, Sri Lanka, Hong Kong, and even Europe and Israel– for cutting and polishing. At present, gemstone cutting and polishing operations in Afghanistan are only available for semi-precious stones and lower-value stones.

3.0 THE GEMSTONES AND JEWELLERY VALUE CHAIN

3.1 STRUCTURE AND PERFORMANCE

Upstream (Mining practices): Gemstones are extracted by artisanal miners using basic tools and equipment including small pneumatic hand-held drills, dynamite, picks, and shovels. Many of their blasting and tunnel-building techniques are unsafe and environmentally unsound. Miners need and desire proper blasting supplies and training. The same is true with tunneling. To date, gemstone mining is unregulated, informal, and primarily family operated. Among the problems facing artisanal miners are the following: (1) Gemstone miners do not have secured mine titles or operating licenses, (2) Revenue collection by the government has been ignored except at the village level, (3) Gemstone mine operators, in general, have no training in environmental laws and do not realize the effects on local ecosystems, (4) There are few business development and training services available to help miners improve the productivity and safety of their mining operations.

The gem mines are currently operating without licenses because the Afghanistan Government has not established effective licensing procedures or processes. Most of the mines are operated by six to ten extended family members. Even after procedures are approved and made public it will take some time to convince the miners and their families in the remote areas of Afghanistan to work with the government. The government must have incentives such as training, assistance with obtaining supplies, reduced royalties, and support for exploration to make the licenses attractive.

Today the miners use explosive powders from military ordnance and dynamite which tends to break or crack the gemstones. Their mining operations could be improved by using nitrates from fertilizers and plastic explosives but do not have ready sources of supply or training. Therefore, their output is reduced by broken crystals and cracked gemstones which translates into lost income.

Most miners are self-employed and do not receive any income until their production is sold. This can mean months without any cash. If the government could access and assist with geology and exploration programs production could be greatly increased.

Downstream activities: Gemstone processing and jewelry-making activities in Afghanistan are still in an early stage of development. Businesses engaged in these activities suffer from constraints in several key areas, including a shortage of trained specialists (cutters, jewellery designers, and producers); a lack of modern equipment; and inadequate support services such as gem testing, appraisal, certification, training, marketing, and finance. Government policies and regulations such as high royalty rates and export duties also affect the development of downstream business activities, by constraining the supply of gemstones at competitive rates.

3.2 SWOT ANALYSIS

The SWOT analysis below provides the discussion from the preceding sections into the key strengths, weaknesses, opportunities, and threats facing the Gemstones sector in Afghanistan.

Table 1: SWOT ANALYSIS

Strengths	Weaknesses
• Availability of world-class mining resources for a full range of precious and semi-precious stones • High-quality resources are still largely untapped, and strong potential exists for new private-sector investment in gemstone cutting and polishing. • Many Afghans are already established in the industry and are interested in legitimizing the trade within Afghanistan. • Low-cost workforce is available to conduct mining operations as well as cutting and polishing.	• Failure of the Afghanistan Government to implement competitive rates for royalty payments and export duties is restricting the development of a legal gemstones industry, retarding growth prospects, perpetuating smuggling activities, and depriving the government of revenues. • Poorly defined property rights at the mines • Local extraction, cutting, and polishing skills are well below international standards. • Many mining regions are remote and lack basic infrastructure. • Some areas may be contaminated with mines and unexploded ordinances. • Lack of laboratories to test and certify gemstones. • Organized access to international markets is generally poor; most trade is informal, and smuggling is pervasive.
Opportunities	**Threats**
• Formalize the sector – develop simplified procedures for registering and licensing ASM operations. • Invest in basic training, technology, and surveying for gem extraction. • Develop mining support services.	• Failure of the Afghanistan Government to implement competitive rates for royalty payments and export duties will continue to retard the growth of legal gemstones mining and trading activities and perpetuate smuggling. • Security problems will continue to make it difficult

• Invest in gemstone cutting and polishing facilities using modern equipment. • Develop a gem institute to provide quality certification and build cutting and polishing capacity. • Improve promotion and marketing of gemstones -- organize media campaigns, increase participation in international gem trade shows, and develop business relations with international companies.	to access and operate in many gem-mining areas, especially in Nuristan province. • Crude mining techniques could waste valuable resources and even render existing mines unusable. • Continued export of uncut stones will position Afghanistan at the bottom of the value chain. • The lack of reliable appraisal and certification services will perpetuate the threat from artificial stones, treated stones, and glass substitutes.

3.3 PRIORITY PROBLEMS AND CONSTRAINTS

Table 2: Constraints on upstream Operations

#	Constraints	Details
1	Institutional and legal constraints	The lack of a clear legal framework inhibits the development and formalization of the gemstone sector. Since extractive resources are public assets the decisions around their extraction and use should be transparent and open to the public. The absence of a clear legal framework, along with local conditions and Government-imposed costs, fosters illegal trading, reduces growth, and undermines Government revenues.
2	High cost of royalties, duties, and licenses	The official rates for royalty payments, export duties, and operating licenses for ASM operations are exorbitant by international standards resulting in reduced profit margins, lack of investment funds, and low tax collections and revenues for the government. Currently, the royalty rate is set at 15%, and the export tax at 11%. When added to village taxes and other payments the miners are subjected to pay over 50%. These rates are significantly higher than rates paid by miners in competitor countries (see Table 1 below) and severely affect the competitiveness of Afghan gemstones in the international marketplace. If paid in full, miners and traders would not be able to sell gemstones on the world market assuming a fair evaluation of their production. Due to these problems most, precious stones are exported unprocessed to Pakistan.
3	Poor mining practices	Gemstone mining operations are small-scale, using primitive tools and techniques, including the improper use of explosives which degrades mining resources. There is a lack of technical knowledge and expertise in modern mining technologies.
4	Lack of technical, logistical, and business development support	There is a lack of local capacity to provide training in improved mining techniques. Lack of training results in the continuing use of unsafe mining practices, destruction of mining resources (through improper use of explosives), and harm to the environment. Poor logistical and supply services result in extra costs for securing needed inputs on a timely basis. Underdeveloped channels for accessing business development services make it difficult for ASM communities to access required training, marketing support, financial services, and other business development requirements.
5	Lack of access to proper mining explosives	Since January 2010 when the Government of the Islamic Republic of Afghanistan (GoIRA) banned the importation of ammonium nitrate fertilizer), which is used worldwide in artisanal mining, gemstone miners have been forced to use dynamite, homemade bombs and recycled ordnance which damages the gem materials and injures the miners.
6	Poor infrastructure	Miners are forced to provide all the funds required to develop the basic infrastructure required for their mining operations. This includes maintaining trails to the mines, water systems, electricity, and tunnel, and living quarter maintenance. In both the lapis mines and the emerald mines the miners have a long and difficult trail to climb before starting work.
Constraints on downstream operations		

1	Cutting and polishing gemstones	Lack of proper equipment and skilled professionals for gemstones processing results in low-quality products with poor export market potential. Lack of gemology skills results in misidentification and value of production.
2	Quality standards and gemstone certification	There is a lack of qualified professionals able to provide reputable valuation and certification services for gemstones. Consequently, there is a growing threat from artificial stones, treated stones, and glass substitutes. To compete successfully in regional and international markets, gemstone laboratories accredited to international standards must be available to certify gemstones as authentically and provide accurate valuation (appraisal) services.
3	Poor marketing and business management skills	Gemstones and jewellery traders lack basic skills in modern marketing and sales techniques (particularly for export marketing and promotion) and continue to rely on informal relationships to sell their products. They also lack skills in general business management, financial management, and accounting. Overall, they need training and help in developing national and international market linkages
4	Lack of access to finance	Miners, gem dealers, jewelers, and traders indicate that lack of access to capital is hampering their ability to develop their businesses. Some do not wish to take bank loans as they consider paying interest to be against the laws of Islam. Others say that banks charged unreasonable rates of interest or require collateral that they cannot guarantee.
5	High costs of doing business	Afghans find it hard to compete on cost with neighboring countries for value-added skills in gem-cutting and jewellery manufacturing due to higher costs for petrol, diesel, and electricity, as well as for machinery, spare parts, and supplies.
6	Complicated export arrangements	Export procedures are complicated, expensive, and time-consuming. The legal export of finished jewellery requires signatures from twelve different departments in the Ministry of Commerce, the Ministry of Finance, the Ministry of Mines, and even the Kabul Museum which needs to sign a document confirming the jewellery is not antique.
Other constraints		
1	Institutional constraints	With the lack of clarity and accountability for developing the gemstones sector within the government, the private sector finds it very difficult to receive fair treatment or process complaints. Current policies and regulations (for obtaining licenses, registering businesses, and paying royalties, duties, and fees) provide few incentives for value-chain participants to formalize their business operations.
2	Lack of private-sector advocacy	The gemstones sector has no strong collective representation able to influence Government and support its growth. This inhibits modernization and business change in mining, trading, and processing and results in sub-optimal growth.
3	Corruption	Without clear laws, regulations, and procedures for mining and taxation, miners, traders, and other workers in the jewellery sector are subject to extortion without support from the government. Miners, traders, and government workers will benefit from full legalization which allows them to call on the justice system for support.

Table 3: Comparison of gemstones royalty rates in competitor countries

#	Country	Category	Royalty Rate
1	Australia	Precious Stone	2.5 % of the value

GRAND ACADEMIC PORTAL
RESEARCH JOURNALS
GAP iNTERDISCIPLINARITIES
A Global Journal of Interdisciplinary Studies
(ISSN – 2581-5628)
Impact Factor: SJIF - 5.363, IIFS - 4.875
Globally peer-reviewed and open access journal.

		Semi-precious stone	7.5 of value
3	Pakistan	Precious Stone	3-4 % of gross value
		Semi-precious stone	10-15 % of Gross value
5	Brazil	Precious stone	0.2 %
6	Russia	Precious stone	8 %
7	Botswana	Precious stone	3-10 %
8	Congo	Precious stone	2.5 – 5 %
9	Gabon	Precious stone	4-6 %
10	Gana	Precious stone	5%
11	Liberia	Precious stone	3-10%
12	Morocco	Precious stone	3%
13	Nigeria	Precious stone	5.5%
14	Zambia	Precious stone	5%
15	Sere Lon	Precious stone	5%
16	South Africa	Precious stone	0.5- 7%
17	Uganda	Precious stone	3%
18	India	Precious stone	10% of sales
		Semi-precious stone	10 % of sales
19	USA	All minerals	2-5 %
20	Namibia	Precious stone	5 % of market value
22	Tanzania	Precious stone	5%

4.0 SUGGESTIONS AND PRIORITIES FOR IMPROVING THE GEMSTONES SECTOR IN AFGHANISTAN.

4.1 SPECIFIC DEVELOPMENT PRIORITIES

Upstream mining operations:

1. **Reforming ASM policies, regulations, and administrative procedures.** Basic changes are required in two essential areas:

- *Reducing rates for royalty payments and export duties* for gemstone miners and traders. This is an essential requirement to reduce smuggling and promote legal trade.
- *Reforming ASM registration and licensing procedures* -- developing simplified procedures for registering and licensing ASM operations. Miners wish to become legal and have secure mining rights, but current laws and regulations provide strong incentives for miners and traders to continue operating informally and avoiding dealings with government officials. It is essential that new business registration and licensing procedures for ASM operations be developed that are simple, cheap, and administered at the local level.

2. **Implementing legal and regulatory reforms and formalizing ASM operations** – Once essential fiscal and regulator reforms have been formulated and approved by all relevant government authorities, the next priority will be to develop effective administrative and operational procedures to implement these new regulations at the local level. This will require providing information, training, and advisory services to help ASM operators understand and comply with these new procedures. Engaging local stakeholders will be essential - tribal elders, together with local government officials, representatives of community sub-groups, and ASM operators need to assume responsibility for ensuring the adoption and compliance with reformed ASM mining regulations and administrative procedures. Given the unfavorable security conditions that currently exist in many mining areas and the weakness, or the absence of the Afghanistan Government official's influence, it will be difficult to implement these legal, regulatory, and administrative reforms on a nationwide basis. Consequently, priority should be given to introducing these reforms through pilot programs in more stable areas first, where local stakeholders are most interested and willing to cooperate in registering their operations, paying reduced royalty payments, and otherwise complying with a more reasonable set of regulations and procedures.

3. **Improving the availability of technical, logistical, and business services to support the development of ASM operations –** Local stakeholders need to actively participate in determining options and priorities for developing logistics, mining services, and business development services to support ASM operations in their communities. Funds from donor programs and government sources should be programmed to support local initiatives and development priorities.

4. **Implementing programs to improve mining productivity, safety, and environmental protection** – Over the longer-term systematic efforts by the Afghanistan Government ministries, working with local officials and stakeholders, need to be undertaken to provide training and technical assistance to help local mining communities make improvements in their mining operations to increase output, reduce waste, improve safety conditions, and protect their local environments. This will include developing and enforcing sound

environmental, health, and safety standards. These efforts will be essential for achieving maximum benefits from gemstone mining resources for local communities and the nation.

Development priorities for downstream operations – gemstone cutting and polishing, jewellery production, and marketing.

Development priorities for private sector firms involved in downstream operations include: (1) Training and technical assistance in gemstones cutting and polishing and jewellery production, (2) Access to finance (from donor and commercial sources) to support investments in improved equipment for gemstones cutting and polishing and jewellery production, new production facilities, and working capital, (3) Access to gemstone inspection, appraisal, and certification services, (4) Access to business development services to improve production, financial management, marketing, and other business operations, (5) Assistance with international promotion and marketing for gemstones and jewellery exports, including training and cost-sharing for marketing events, and (6) Establishing partnerships with international companies and organizations involved in the gemstones and jewellery sector to help upgrade equipment and training, access firm-to-firm technical assistance in areas such as gemstones processing and jewellery design and production and expand sales of gemstones and jewellery products.

4.2 STAKEHOLDER ROLES IN IMPLEMENTING THE ACTION PLAN AND SOURCES OF ASSISTANCE.

The roles and responsibilities of sector stakeholders, including government departments, civil society, tribal elders, community development councils and communities will be as follows:

AFGHANISTAN GOVERNMENT RESPONSIBILITIES

To achieve its objectives the Government will put in place a proper governance regime based on the following principles: (1) Extractive resources are public assets belonging to the citizens of Afghanistan, and the laws and regulations will ensure that decisions around their extraction and use will be transparent and open to public scrutiny, (2) The laws, rules and regulations, governing the sector will be revised so that they can be easily understood and fairly enforced with simple procedures that will support mining activities that are legal, with good security of tenure, and provide fewer opportunities for corruption, (3) Taxes, royalties and fees will be set so that they are equitable and competitive with comparable gemstone producing counties such as Madagascar, Colombia, Brazil and Sri Lanka and nearby countries such as Pakistan, India and Thailand, (4) To maximize the value for Afghanistan's citizens, artisanal mining permits will only be granted to Afghan citizens in accordance with the Minerals Law of 2010 and associated regulations and procedures, (5) The negative environmental, health and safety effects of gemstone mining will be managed and, to the extent feasible, minimized through setting and enforcing sound environmental, health and safety standards and by providing on-site technical assistance and training to help miners improve their mining practices. Procedures for regulating and monitoring the supply of explosives will be implemented to ensure that security concerns are adequately addressed. Such mechanisms to oversee the use of explosives will include the licensing and close monitoring of dealers. In addition, training in the use of explosives will be provided as part of the on-site technical assistance to artisanal and small-scale miners, and (6) Exports procedures will be streamlined, recognizing that potential gains from trade facilitation may be greater than those arising from reductions in export tariffs.

SPECIFIC ROLES FOR THE AFGHANISTAN GOVERNMENT MINISTRIES

Implementing these suggestions will require close cooperation among several government ministries, particularly the Ministry of Mines (MoM), the Ministry of Industry and Commerce (MoIC), and the Ministry of Finance (MoF). These three ministries will need to work together to address several of the most important constraints that are inhibiting the development of ASM activities including high, non-competitive royalty rates, complex licensing procedures for ASM operators, and dysfunctional customs procedures.

Ministry of Mines (MoM) **-** The Ministry of Mines (MoM) is the primary policy maker and regulator of upstream mining activities in Afghanistan. The core responsibility of the (MoM) will be to improve and enforce a business-friendly legislative and regulatory framework and to facilitate programs that formalize the sector and remove obstacles (e.g., lack of skills, equipment, or finance) that inhibit sustainable growth of upstream gemstone activities. The most immediate problems that need to be addressed include reducing royalty rates for small miners and developing simple licensing regulations and procedures for ASM operators. In the longer term, the MOM will need to improve its capacity to provide other services to the ASM industry such as mining-related technical assistance and training, occupational health, and safety training, conducting geological surveys, gemstone certification (in collaboration with the private sector), and overall monitoring of mines operations.

Ministry of Industry and Commerce (MoIC) – The Ministry of Industry and Commerce is the primary policy maker and regulator of business and trade activities in Afghanistan. For gemstones, this means downstream activities including gemstone processing (cutting and polishing), jewellery design and manufacturing, marketing or other business activities that are conducted in Afghanistan, and export of gemstones and gemstone products. The core responsibility of the MoIC will be to coordinate business development activities in the gemstone industry (including mobilizing financial and technical support from donors, government agencies, and private sector stakeholders); promote domestic and export sales of gemstones and jewellery and improve gemstone export processes (particularly customs operations).

Ministry of Finance: The Ministry of Finance (MOF) is the primary policy maker and regulator of national revenue and budget. For the gemstone sector, the priority need is to reduce the royalty rates for gemstones to levels that are competitive with those charged in neighboring countries. Reductions in export duties on gemstones and jewellery are another priority.

The Ministry of Mines, Ministry of Commerce and Industry will work together with AISA, ACC, and NGOs to improve access to capital markets and financial loans for value-chain operators. Mechanisms include identifying and addressing obstacles for artisans and traders obtaining small business loans or micro-credit for ASM mining activities, as well as value-added operations of cutting and polishing, jewellery design, and wholesale and retail.

MOIC and the Ministry of Labour and Social Affairs, together with NGOs or Public Private Partnerships, will help increase gemstone cutting and polishing activities in Afghanistan through the provision of standardized and certified vocational training in quality lapidary skills, jewellery manufacturing, and design in Afghanistan, and training in business skills of marketing and export including quality control, customer service and the use of trading and exporting leases.

The Ministry of Commerce and Industry will work with AISA and EPAA to provide trade incentives and access to markets through the support of Afghan Gemstone 'pavilions and training for participants at (before, during, and after) international fairs; fair pricing opportunities; market assurances (such as audit, tracing technology, certification, branding).

Summary of Specific Roles for MoM, MoIC, and MoF

(1) MoM – Reduce royalties to be comparable to other countries, develop simple licensing procedures and training, and design and promote a favorable legal regulatory environment, (2) **MoIC –** Support, coordinate and promote vocational training and BDS programs. Coordinate efforts to implement the Action Plan, including providing communication and information services to inform stakeholders on the scope of activities being undertaken and results being achieved, and (3) **MoF –** Set taxes, royalties, and fees so that they are equitable and competitive with comparable gemstone-producing counties such as Madagascar, Colombia, Brazil, and Sri Lanka and nearby countries such as Pakistan, India, and Thailand. Establish a training program on customs procedures and regulations.

Roles of Donor Organizations and NGOs

International donor organizations and NGOs provide important sources of development assistance for Afghanistan. Given the importance of the mining sector, efforts should be pursued to engage international donors and NGOs in active efforts to support the development of the artisanal mining sector.

Projects that are currently working on mining-related issues, as well as other private sector development problems, should be invited to participate in the Gemstones and Jewellery Working Group so they can gain a clearer understanding of industry constraints, stakeholder problems, priority development needs, and ways in which their programs could help develop solutions to overcome current constraints and provide effective support for this important industry sector.

Currently, several donors funded programs and NGO initiatives are providing technical assistance and funding to support the development of upstream mining activities, (including ASM for gemstones), and downstream activities (including cutting and polishing gemstones, jewellery design, and production. Examples include:

Roles of Private Sector Stakeholders

Gemstone mining, cutting, polishing, and other lapidary skills, and trading and export, will be undertaken in a competitive free marketplace by the private sector. The private sector stakeholders will be expected to play an active role in participating in the working group and task forces that will be formed to implement the priority actions included in this plan. This will entail collaborating with other stakeholder groups (government ministries, donor organizations, NGOs, and local community organizations) to identify problems they are facing, help formulate possible solutions to remove policy, regulatory, and business development constraints, and contribute resources and manpower to help implement programs to promote the growth of the gemstones and jewellery sector.

4.3 REQUIREMENTS FOR ACTION PLAN IMPLEMENTATION

The implementation of this policy will be guided by the following principles: (1) *Government's Limited Role.* The Government's role in the development and improvement of the Afghanistan Gemstone Industry is to act as a facilitator, policymaker, and regulator. These roles are critical to establishing an enabling environment in which private investors may engage in gemstone mining, trading, and value-added activities of processing and design of finished products. A primary principle of this National Framework is that Government's intervention in the Gemstone Industry should not overstep these roles, (2) *Active Participation of Gemstone operators.* For this Action Plan to be effective, the active participation of mine operators, gemstone dealers, and businesses engaged in downstream activities is essential, (3) *Promotion of Private Investment.* Without further private investment in the Afghanistan Gemstone Industry, its full potential cannot be realized. The funds to make this investment must be readily available to gemstone operators, (4) *Identification of Funding Resources.* As the Afghanistan Gemstone Industry transitions from an unregulated sector to one that is formalized and enhanced, Government will benefit from the leverage of donors and other funds to support interim initiatives that will include training, equipment supports, and industry partnerships, (5) *Gemstone Working Group and Task Forces* – The Gemstones and Jewellery Sector Working Group, composed of Government, private sector representatives, NGOs and will take the lead in managing collective efforts to support the development of the gemstones and jewellery sector. The Working Group members will meet regularly to discuss current problems and priorities, develop specific work plans for addressing priority problems identified in this action plan, assign tasks for WG participants to carry out, identify possible funding sources for particular development initiatives, monitor the progress of various activities that are being implemented, and provide a forum for sharing ideas and formulating solutions to support the ongoing development of Afghanistan's gemstones and jewellery sector.

5.0 SUMMARY (TABLE) OF PRIORITY SUGGESTIONS AND IMPLEMENTATION PLAN

The Table below describes several issues/impediments to growth faced by the gemstone sector. For each issue, it sets out a policy response, identifies the organization that is responsible for ensuring that this response occurs, and sets a completion date.

annex 1 – Suggested implementation plans to improve the gemstone Sector in Afghanistan

Issue	Actions	Lead Agency	Expected result/indicators	Timetable
UPSTREAM				
Formalization of Operations				
Mining rights are currently not clearly defined; the new mining law still has not been approved by all relevant parties and will require additional time for final approval, development of implementing regulations and procedures, and on-the-ground implementation	Stakeholders need to engage in advocacy efforts to support efforts to speed up the passage and implementation of new laws and regulations that provide the means for miners to gain clear titles or operating licenses for their mines. Miners need to engage in advocacy efforts to ensure Minerals Law procedures, rules and regulations incorporate *'grandfather rights'* for existing artisanal and small-scale miners and first come first serve rights for greenfield ASM licenses/authorizations.	MoM	Mining law approval. Implementing regulations and administrative procedures developed and in force. # Of mining licenses be issued	1 year
Royalty rates and export duties are considerably higher than rates in competitor countries, making it difficult for Afghan miners and traders to operate formally and still compete; higher rates also encourage smuggling rather than exports of uncut stones from Afghanistan and result in less revenue to the Afghanistan Government	Conduct a formal review of competitor rates for royalties, develop a proposal for reduced rates; obtain approval for new rates; publicize new rates and requirements; implement new collection and payment procedures	MOM, MOF, MOIC/ Customs	Royalty rates are reduced to levels that are competitive with rates in surrounding countries (make this available to licensed miners only)	18 months
High rates for export	Conduct a formal review of	MOIC	Export duties and other	Years 2-3

duties and other charges	charges paid by gem miners and traders at all stages of the value chain and analyses the effect on the competitiveness of the Afghan ASM mining sector	WB/Donors	charges are to be reduced to levels that are competitive with rates charged in competitor countries	
ASM-friendly leasing and licensing regulations and procedures need to be developed and implemented	• Develop streamlined procedures for issuing artisanal mining licenses. • Design a pilot project to issue miners licenses to be implemented in 1-2 villages. • Survey miners in the field for acceptance – Survey to be conducted by traders and miners – not government employees. • Implement a pilot program in initial areas and evaluate the program. • Work out design and implementation problems that occur in the initial pilot program and expand to other areas.	MoM Miners Donors MIDAS Miners	New, simplified regulations and procedures to be developed and approved by MOMP A pilot project to be implemented and to test registration and licensing procedures in one geographical area 100 ASM operators registered in the pilot projec	1 year
DOWNSTREAM				
Improving Gemstone Cutting and Polishing				
Lack of data on the status of cutting and polishing businesses	Conduct a survey of the status of cutting and polishing businesses – how many, problems, and needs.	MOIC, donor programs	The published list of firms engaged in gemstone cutting, polishing, and jewellery production	1 year
Most gemstones are not processed in Afghanistan, resulting in a loss of value-added revenues and jobs for the Afghan economy	Provide training and business development services to support the development of local cutting and polishing operations	MOIC	Increased sales of processed gemstones	1 year
Lack of skill gemstone cutting and polishing skills	Organize regular training programs for cutting and polishing – ST -- Train master trainers to train cutters and provide on-the-job training (apprenticeships). LT – provide extension training in technical institutes using industry specialists	MOIC, Donors, and NGO	• Curriculum and courseware to be developed. • # Of Trainers to be trained • # Of Cutters to be trained	1 year
Lack of modern equipment for cutting and polishing gemstones	Help local companies procure modern equipment and supplies through grants or purchases. Work with equipment suppliers to provide equipment for training	NGO, equipment supplier donors	# Of cutters who have acquired upgraded equipment and received training in cutting and polishing techniques	1 year
Improving Jewellery Design and Production				
The jewellery industry is unorganized, and lack of data on needs, opportunities	Survey SMEs involved in jewellery production – numbers, locations, problems, opportunities	, Donors	Report on the status of the jewellery industry	1-2 years
Limited jewellery design and production	Expand training programs for jewellery design and	NGOs and Private	# Of companies and technicians trained	1-2 years

skills	production – firm-to-firm training and training programs in technical institutes	Companies		
	Link international designers to local producers and design facilities to ensure an understanding of differing tastes in differing markets. Help develop firm-to-firm linkages between international companies and Afghan firms to provide training and marketing support	NGOs and private Companies MOIC	# Of firm-to-firm business relationships developed	1 year
Lack of modern equipment for jewellery design and production	Help local companies procure modern equipment and supplies through grants or purchases. Work with equipment suppliers to provide equipment for training	MOIC, Donors, NGOs	# Of jewellery firms that have acquired updated equipment and training in modern design and production technologies	1 year
Improving Access to Markets for Gemstones and Jewellery				
Absence of quantified market data	Conduct market data on domestic, regional, and international markets for Afghan gemstones	MOIC, EPAA Donors	Issue Findings Report	1 year
The domestic market is small and legal export sales are minimal - growth is most likely to come from increased exports	Produce and implement a domestic and export marketing plan for the sale of uncut, semi-processed and cut, polished, faceted gemstones including examining how and when to develop an Afghan Gemstones Brand	MOIC EPAA Donors	Written Plan	1 year
Limited understanding of the preferences of international customers	Increase dealer and trader market knowledge of foreign markets, through cost-sharing for visits to and participation in trade shows, as well as internships for young professionals in trading centers such as Jaipur	NMD	Action Reports	1 year
Cumbersome trade and export regulations	• Simplify and publish export procedures and documentation and eliminate export duties for a trial 3-year period as an incentive to legalize trade. • Explore the feasibility of issuing export licenses at the provincial level	MOF MOIC	Export regulations, documentation, and procedures revised	1 year
Limited domestic market	Organize Jewellery and Gemstone Exhibitions	MOIC Private Business NGO'S	Increased sales of gemstones and jewellery to international customers	3 years
Institutional Capacity Development				
Improving Advocacy-- No peak or	Work with Afghan value chain operators to strengthen the	MOIC	A strategic plan for the association to be	5 years

coordinating body exists at present.	existing gemstones and jewellery association and work to improve capacity (advocacy, information sharing)		developed and a training/advocacy plan to be prepared	
Lack of gem testing and certification facilities	-- Investigate and assess the need for, the costs of establishing, and institutional ownership of an internationally certified and accredited Gem Testing Laboratory with smaller mobile testing units, and evaluate against outsourced alternatives -- Establish Gem Testing Laboratories for certification of Afghanistan gemstones and disseminate certification benefits and procedures	MOM Donor support Private-sector service providers	A business plan for gemstone testing and certification facility is to be developed. Funding secured. Gemstones testing and certification facility to be launched	1 year
Weak capacity to provide training and business development services	Provide ongoing business development support, access to finance, and export assistance through specialized BDS/training companies	MOIC, and other donors	Specialized BDS services and programs are being implemented to serve gemstones/jewellery firms	1-2 years
No ethical certification of Afghan gemstones	Assess priority areas for an ethical certification scheme for Afghan gemstones.	GEM LAB DONOR		2 years
The lack of an effective carnet system exposes exporters to the risk of taxation on samples on return to Afghanistan	Develop an effective carnet system that permits the tax-free and duty-free temporary export and import of goods for up to one year	MOM CUSTOMS MOIC	To develop a plan for the carnet system and approval by relevant Government agencies	2 years
The small scale of mining, processing, and production activities inhibits the effective development and promotion of the gemstones and jewellery industry	Promote joint ventures with foreign investors. Help establish associations for gemstone and jewellery dealers in key regions and facilitate the establishment of a National Gemstones and Jewellery Association (NGTA) to represent the interests of traders and processors to support and promote investment and marketing activities	Private sector ACCI	Gemstones and Jewellery Associations established and providing services to members	Longer term

REFERENCES

[1] Bowersox, G. W. (1985). A status report on gemstones from Afghanistan. *Gems & Gemology*, *21*(4), 192-204.

[2] Bowersox, G. W., Foord, E. E., Laurs, B. M., Shigley, J. E., & Smith, C. P. (2000). Ruby and sapphire from Jegdalek, Afghanistan. *Gems and Gemology*, *36*(2), 110-126.

[3] Hughes, R. W. (1994). The rubies and spinels of Afghanistan: A brief history. *Journal of Gemmology*, *24*(4), 256-267.

[4] Chen, Q., Bao, P., Li, Y., Shen, A. H., Gao, R., Bai, Y., ... & Liu, X. (2022). A Research of Emeralds from Panjshir Valley, Afghanistan. *Minerals*, *13*(1), 63.

[5] Wyart, J., Bariand, P., & Filippi, J. (1981). Lapis-lazuli from Sar-e-Sang, Badakhshan, Afghanistan. *Gems Gemol*, *17*, 184-190.

[6] Boehm, E. W. (2017). Purple Spinel from Badakhshan, Afghanistan. *The Journal of Gemmology*, *35*(8), 694-697.

[7] Krzemnicki, M. S., Wang, H. A., & Büche, S. (2021). A new type of emerald from Afghanistan's Panjshir Valley. *The Journal of Gemmology*, *37*(5), 474-495.

ACRONYMS

ACCI	Afghanistan Chamber of Commerce and Investments
AGF	Afghanistan Growth Finance
ANSA	Afghanistan National Standards Authority
AMIA	Afghanistan Marble Industries Association
AMGPA	Afghanistan Marble and Granite Processing Association
ASTM	American Society for Testing and Materials
COE	Marble Center of Excellence - Marmaristan
CSO	Central Statistics Office
EPAA	Export Promotion Agency of Afghanistan
IFC	International Finance Corporation
MAIL	Ministry of Agriculture, Irrigation, and Livestock
MIDAS	Mining Investment and Development for Afghan Sustainability
MOF	Ministry of Finance
MOIC	Ministry of Industry and Commerce
MOEW	Ministry of Energy and Water
MOMP	Ministry of Mines and Petroleum
MOTCA	Ministry of Transport and Civil Aviation
NEPA	National Environment Protection Agency
OPIC	Overseas Private Investment Corporation
NRRCP	National and Regional Resource Corridors Program
USAID	United States Agency for International Development
USGS	United States Geological Survey
WB	World Bank
GIRoA	Government Islamic Republic of Afghanistan