

Improving Access to Finance for Artisanal & Small-Scale Gold Mining

Webinar - 02 December
Questions & Answers



- 1. What is the role for financing for prospecting? From experience, so much of ASM practice is inefficient as a result of miners recovering gold from low grade deposits, which no amount of processing equipment can meaningfully address.**

Suzette McFaul: This is a two-part question - 1) I don't think we can get financing for prospecting for ASM. Too risky. The role comes when they find the gold. 2) When they are recovering gold from low-grade we need to assist to find a) other activities i.e. diversification away from mining and b) other areas to mine. More money can be achieved with better processing techniques even with lower grades.

Firas Abbasi: Understanding the asset which is mainly the resource in the ground is a basic and essential step for resource development. Prospecting is a term usually used for early stage exploration. In many cases involving ASGM there is a history of gold production which could be considered as past the prospecting level. To understand the deposit, exploration and resource definition is what is required. Financing this activity is similar to seed capital for startups. At this stage the risk is high as the resource is not proven and the project may not be viable. However, if the quality of the resource is proven, the project is de-risked and the financial reward for the early investors increases. While the quality of the resource relies heavily on the grade, there are also many other aspects that make a project attractive such as the size, distribution, chemistry and so on.

- 2. Accessing financial services requires a quite thorough knowledge of the financial situation, including ore reserves and potential. How do miners get this done, as it already requires additional funds for this?**

Firas Abbasi: Miners do not usually have a plan for resource management. They go day-by-day as long as the land keeps on giving. Providing funds to help the miners on this aspect is a necessary step to professionalize the industry.

Suzette McFaul: That is why ASM requires a third party who have a thorough knowledge of the financial situation. Second, ASM will always find the gold, they are historically gold finders.

- 3. How can one design a financial mechanism or product within a financial institution? How do we break the barrier (blockade) that could exist on behalf of the financial institution for ASGM, since there is little understanding of the sector?**

Jaime Webbe: In the Guyana project we are developing a pilot mechanism along with financial institutions. We have representatives of national banks as participants in our roundtable and will

include, as part of this, training on ASM and its economic potential targeting the financial sector specifically. Saying that, our initial stakeholder interviews have revealed that the national banks are shying away from investing in ASM due to perceptions of high risks, so we have a lot of work to do still.

4. For planetGOLD Colombia: The majority of miners in Colombia are panners, that means they will give credits so that each panner can obtain mercury-free technologies. What is the average credit each miner would receive? What is the guaranteed mechanism? What is the role of the government?

Manuel Hurtado: We are not planning to give financial solutions or credits to each artisanal miner or panner in our country, but we want to initiate a process, to design the best methodology we can, design it together with natural actors of this productive chain and give an incentive so this process starts to work. Then, these methodologies have to be self-sustainable and continue on working. We are thinking initially of small credits for basic technologies of about USD\$ 300 and the guarantee would be initially the fund that we propose to create with the Cooperative Confiar. We have found that noncommercial public banks that provide solutions to commercial banks have products that might work as guarantee for rural activities, including mining, but commercial banks don't use them, because of the fear to attend this communities; so we think that if we can remove this misunderstanding and start a successful pilot, this barrier is going to start to break.

5. Is this type of financial setup, such as proposed by Manuel Hurtado, only valid for equipment, or could it be extended to preoperational setup, such as hiring miners, digging the first shaft, etc.?

Manuel Hurtado: Actually it's a possibility to extend to other purposes as mentioned by Yves, but we haven't already design the product with our ally and we are in process of creating it, but I think, and is a discussion we can have, that other activities can be financed. It's important to emphasize that any efforts in this process has to impact the reduction of mercury emissions; so, if we finance these kinds of activities and it reduces these emissions, we would be achieving the expected result.

Suzette McFaul: SEF Clean Gold includes everything including working capital. It is full financing of the operation.

6. In the world much less than 1% of 43 million artisanal miners are formalized. The main reason is that there is no available area for them to work. Most areas are in the hands of companies. Clean technology will not change this. How the financial system will increase the areas available for artisanal miners?

Suzette McFaul: We need a third party to assist in all areas of this. The big companies need to see the ROI (return of investment) for working with ASM. It's a long way away but people like Marcello are working on that.

7. For Manuel Hurtado: In the previous slide, there is a dotted line indicating technical assistance. I see that this activity, so vital to ensuring the miner's success and the payment of his potential debt, is treated superficially. There is nothing concrete about what assistance will look like, or who it will be done with, to ensure the success of the program. The lack of concrete, technical assistance, with qualified personnel, is vital to these programs. I hope your loan program is not another white elephant.

Manuel Hurtado: It's very important what Rodrigo mentioned in his question because technical assistance is mandatory in these processes. In the project we are working with a government entity specialized in providing technical education to different communities (SENA). We are working with them to create contents and technical training programs to miner communities to give this assistance. Also, with the ministry we are creating processes to accompany the miner when is trying to access to finance system

8. In West Africa, artisanal mining is a seasonal, occasional or complementary activity. In that case what are the best options to formalize their work in order to access formal financing?

Suzette McFaul: SEF Clean Gold helps formalize their work and we work with any size to access funding.

9. How can we ensure that ASGM is not a breeding ground for money laundering?

Suzette McFaul: Ensuring money laundering schemes won't exist is only possible if you control the funds. The SEF Clean Gold model is a partnership whereby the finances are controlled by us.

10. This is Ingrid from Guyana. How did you gather all the info required to determine the suitability of particular mining operation/community? How long did it take to make the final determination or choice?

Suzette McFaul: It doesn't take long to determine the suitability, usually within weeks. The knowledge already exists, we just need to glean it and input into a financial model along with the willingness of the community to participate.

11. Which are the conditions to apply the clean gold program?

Suzette McFaul: For SEF Clean Gold, community participation is paramount, willingness of the miners to participate, and the supply of ore.

12. Please explain how you have a better supply chain? is there a market paying more for Clean Gold?

Manuel Hurtado: In terms of price, in fact we have found in Colombia, that informal markets (and illegal markets) pay only 35% or less of international gold prices to artisanal miners (panners). We have found also, that in legal, formal, traceable and fair markets, the purchase price can go up to 90% of international prices; so we hope this is an incentive for miners to participate in these productive and commercial chains with better prices and conditions for them.

Suzette McFaul: There are penalties for selling gold with mercury. In order to get spot price, no mercury can exist.

Jaime Webbe: Drawing on examples from other sectors, price premiums are quite difficult to achieve. As a result, this is not an option that we have identified as being feasible in the Guyana case.

13. As Marcello wrote is very few ASM formalized and have a license and as Yves wrote will an investor need information on the ore deposit. Could we make some successful stories with licensed ASM operators getting assistance to evaluate the ore deposit and with this discuss with the financial institution. The national geological survey could assist with the ore deposit evaluation: This has been discussed in the PanAfgeo project.

Suzette McFaul: SEF Clean Gold had investor participation without ore deposit evaluation other than grade and history. But we agree that it would be better to have more evaluation on ore deposit. It certainly would make it easier for investor participation.

14. For the SEF model, how were environmental and social risks managed in promoting cyanidation vs. mercury use?

Suzette McFaul: Thanks Kirsten for the great question. Promoting cyanidation is always hard but our team had to prove we had the expertise to manage cyanide. Social risk, I would assume, is a community question. They are not opposed to cyanide since they use mercury and they don't necessarily care about the risk [of that]. If someone comes with the expertise to manage the environment, they are happy with that. In terms of government and other peripheral actors we use the same principles and agreement LSM has been using. Management is key on all aspects with good communication.

15. "Keep efforts with traditional financial institutions". If the capital for (low/no mercury) technology comes from international sources (like impact investors), please could you outline how this funding is integrated into traditional/mainstream/local financial institutions and deployed to ASM? What evidence do we have that shows, not only that miners repay, and funds recycle locally, but international investors' capital can be repaid over time? Can we overcome commercial sensitivities and publish detailed results on loan performance to give potential investors' confidence? (Suzette McFaul partially covered this but do others have a view?)

Firas Abbasi: The financial mechanism by which impact capital is deployed is an area that we are researching extensively. There are several dynamics at play when determining the appropriate mechanism to deploy impact capital. Mainly, the objective of the funder, the size of the financing and the specifics of the operation including the jurisdiction. We can identify mechanisms for a specific set of these variables, however, there is no one-size-fits-all solution due to the diversity of such situations. The lack of documentation of financial arrangements with ASGM operations makes it difficult to conclude with certainty what has worked in the past and why. Thus, we highlight in our research that documenting these mechanisms and the results is necessary for overcoming the barriers to financing.

Ron Thomas: Commercial banks have multiple challenges in financing the precious metal sector. Assuming finance is made available through a collaborative effort between DFIs, impact investors and private offtake financiers, integrating this funding can be done, through an intermediary vehicle that gives 'comfort' to the said financiers. By 'comfort' I mean credit concerns, supply chain concerns and reputational risk concerns. This intermediary vehicle can be the borrower from the financing entities and use the funds for helping the ASM sector with adequate 'credit mitigants' in place.

16. What guarantees are handled when credit is given to small-scale and artisanal miners. Could the mineral reserves be considered a guarantee?

Firas Abbasi: When credit is given to artisanal and small-scale miners, a guarantee can take many forms. It could be a government guarantee or a risk sharing facility. It could be a lien on the equipment purchased with that loan. Having a mineral reserve in place will increase confidence in the operation's ability to continue production in the future. However, unless the claim to the reserve is posted as a guarantee the mere existence of the reserve is not. This situation depends on the land ownership and the laws applicable to the jurisdiction where the operations reside.

Ron Thomas: For LSM, mineral resources/reserves are usually not considered a 'guarantee' or collateral though some amount of comfort is taken from projects which are well studied ie.as per international resource classification norms. The absence of such studies is a challenge for ASM projects to vie for viable access to finance. In my humble opinion, the borrower's risk should not be undertaken by the ASM miner but rather move to an intermediary vehicle and the guarantees/collateral for the financier can be provided via the intermediary vehicle.

Suzette McFaul: SEF Clean Gold believes credit should not be given to those who cannot manage it. Our SEF model works with entrepreneurs to make sure they have a team and someone who has the ability to manage money. This model is a worldwide model with a success rate of 80%.

Jaime Webbe: You might be interested in reading our Impact Investment case study on Rwanda that explores this issue specifically: <https://cirdi.ca/wp-content/uploads/2020/12/ASM-Access-to-Finance-Rwanda-Use-Case-112020-1.pdf>

17. We have heard about the benefits of using cyanide, and obviously we equate its use with more advanced and mechanized ASM activity. Its efficient use is obviously associated with a specific level of expertise and demands that specialist knowledge is present onsite. My concern relates to settings where 1) cyanidation is not a part of ASM (i.e. where licensees are not permitted to use cyanide) and 2) where there are formidable barriers to transitioning into cyanide. How are settings where cyanidation is not a realistic possibility for ASM perceived in the investment community (i.e. would these perceived to be more risky settings, because of the constraints miners face with mechanizing)? And, given the obvious constraints with 'scaling up' into cyanidation what would be the most appropriate financial model in these settings for licensees?

Suzette McFaul: The SEF Clean Gold model holds those licenses, we have the expertise and we are partners in these projects.

18. How to overcome the miner's fear of taking credit?

Firas Abbasi: By building confidence in their ability to produce. Pilot programs like the ones under implementation by planetGOLD aim at proving the concept. Eventually, understanding what is underground, having a plan to extract it and having efficient equipment could help encourage the miner to take on the business risk.

Suzette McFaul: SEF Clean Gold understands this and as partners, we take on the credit with them.

19. May you comment about the role and responsibilities of the financial sector as it is one of the most important clients of gold and has no obligation to declare how much gold comes from ASGM?

Suzette McFaul: SEF Clean Gold is finding that institutions are wanting to promote gold from ASM as a good practice. We are a ways from this, but this is a branding mechanism that could be our future for investment.

Jaime Webbe: We are also struggling with understanding how much of the loan portfolio is absorbed by ASM, in part because of differences in definitions as well as a lack of understanding of different categories of operations by the sector.

20. What's your experience in gold-money laundering? and controls regarding the traceability of gold manufacturing and commercialization?

Suzette McFaul: SEF Clean Gold completes the traceability from mining to processing to ultimately the sale of the gold.

21. This is for Suzette McFaul. Hope she can share her experiences in prospecting for investors.

Suzette McFaul: SEF Clean Gold came across many challenges prospecting for investors. I am happy to share some of the stories but that would take up [a lot of space]. Ultimately it was those just outside the industry that jumped into the investment. The biggest bonus we offered was the expertise of our advisory board.

22. Taking in consideration that lack of formality is a requirement for the Mining Formalization ("Formalidad Minera, Tributaria y Laboral") does that affect in terms of risk?

Suzette McFaul: SEF Clean Gold takes on the credit risk. We work to take away most of the risk factors.

23. What advances are there to evaluate profitability in the value chain, with and without formality to convince a private or institutional investor?

Firas Abbasi: Data and information collection has started and is part of this assessment process. While this may vary across countries, there are two main aspects of ASGM that highlight the opportunity for a profitable and impactful investment. The first: Mercury-free processing technologies and a controlled-well managed production process can significantly increase gold production through increased recoveries and volumes, or ore processed. The second, there is a significant gap between the price of gold the miners receive and the international price. The specifics will need to be determined on a case by case basis.

Manuel Hurtado: In planetGOLD Colombia, we have planned to work on 2021 on the implementation of new free of mercury processing technologies. This is an activity that has actually already started (processing plants are being designed and built). In parallel we are going to evaluate and design an economic and financial model which will identify the profitability of these communities.

Suzette McFaul: SEF Clean Gold's model first and foremost incorporates our SEF model which is all about economic sustainability for business.

24. Technical and financial assistance will be critical to formalizing ASM not only limited to assessing the Ore reserve but also the environmental impacts associated and EIA fees

Suzette McFaul: Correct, this is where third-party assistance comes into play. SEF Clean Gold has skin in the game to make sure of this.

25. ASM miners are often good prospectors and will naturally follow/priorities the high-grade ore wherever possible as it makes business sense. The problem is when the high-grade ore runs out or terminates (perhaps due to a geological structure) and, depending on the complexity of the ore body miners may struggle to re-locate high grade. Geological support could be helpful to: 1) focus exploration efforts (and reduce the environmental footprint of exploration efforts in parallel), 2) to do some rough "back of the envelope" resource calculations which may enable de-risking when it comes to access to finance, 3) evaluate potential of re-processing waste (It is common to see ASM waste piles return high gold grades or historical mines with presence of previously un-economically interesting ore content). How any of the finance representatives would perceive these kinds of activities in enabling ASM investment.

Ron Thomas: I reckon the query is regarding financing for geological support to ASM. I can't think of a straightforward solution to this. I guess private off take financiers can take a piece of this funding, through the intermediary vehicle which I had earlier spoken of. It's definitely possible if the financiers are given comfort on how they could benefit down the line from this activity.

Suzette McFaul: High grade is great but if we offer them a way to make more money in lower grade activities, that works. They are notorious for finding gold, but environmental footprint is a challenge 1) Geological support would be helpful. 2) SEF Clean Gold always does the back of the envelope [calculations]. 3) SEF Clean Gold also processes waste where the opportunity exists. All these activities are important to ASM investment.

26. In relation to what Jamie shared on a larger system infrastructure investment to which the miners will later operate efficiently, who's best to invest for this more larger infrastructure development?

Suzette McFaul: SEF Clean Gold believes that funding has to come from Investment looking for returns. Miners need to be the supply chain and a management team needs to be in place to operate the business. This is the key to sustainability and scalability.