

GOLDEN OPPORTUNITIES

Cooperation for Reducing Mercury in Gold Mining in the Guianas

Grand Savannah Suite, Pegasus Hotel, Georgetown

October 03, 2022

Ashanta Osborne, Workshop Facilitator

November 11, 2022



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Section 1: Workshop Overview

1.1 Introduction

Under the Minamata Convention, which entered into force in August 2017, it aims to protect human health and the environment from the emissions and anthropogenic releases of mercury. The ASGM gold mining sector is responsible for 37% of global emissions. Guyana, Suriname and French Guiana (through France) have signed and ratified the Minamata Convention and are working to implement feasible mercury free alternatives and solutions.

Gold mining continues to lead to significant releases of mercury, both directly (from mercury-intensive amalgamation techniques) and indirectly (related to deforestation, which promotes re-circulation of mercury naturally present in the soils). Concerns of mercury contamination have been found in fish and humans, particularly in indigenous and local communities. However, the ASGM sector remains a major source of income for livelihood. In this regard, it is important and necessary to devise solutions which would safeguard the environment, protect human health and maintain economic feasibility. Tackling the issues and sharing best practices across the Guianas will enhance successes and create long term solutions.

It is with this understanding of the need for sharing experiences the Golden Opportunities regional workshop was conceptualized. This regional workshop brought together stakeholders from Suriname, Guyana, and French Guiana. Stakeholders spoke about key projects they are involved in as it relates to mercury free mining across the Guianas.

1.2 Workshop Objectives

The objectives of the workshop were to:

- Co-develop the coordination and collaboration trajectory towards the reduction and phasing out of mercury among ASGM sector stakeholders across the Guianas.
- Showcasing mercury-free initiatives in the Guianas
- To inform stakeholders and partners of the status of the phasing-out of mercury in the Guianas Project



Photo 1: Workshop Programme

1.3 Workshop Agenda

The workshop agenda was developed and disseminated by WWF-Guianas, and may be referenced in *Appendix A*.

1.4 Workshop Methodology

The Golden Opportunities workshop employed a diverse array of methodologies to ensure the objectives of the activity was achieved.

The day began with an **Opening Ceremony** that focused on setting the tone of the day with remarks and a feature address from the Minister of Natural Resources.

The first session of the day: **Knowledge Sharing on Mercury Phase out in ASGM Initiatives across the Guianas**, saw a panel of organizations and institutions that are working towards the reduction and phasing out of mercury in the Guianas. The panel presentations were followed by plenary discussions, where workshop participants were able to ask questions, make comments, and generally provide feedback on the information shared.

The second session of the day involved a highly participatory and engaging approach. This session entailed break-out groups where participants were given specific guidance for exploring three key questions as follows:

- 1 What are the priority areas for cooperation and collaboration at the Guianas level?
- 2 What do we need for regional cooperation and collaboration?
- 3 Who are the key actors for the cooperation and collaboration?

Details of the group work session may be referenced in *Appendix D*

1.5 Workshop Participants

The workshop was attended by a broad spectrum of stakeholders from across the sector including academia, donors, partners, governmental agencies, regulatory bodies, regional groups, local organizations, indigenous representatives, Participants were able to access the event both in-person and virtually. *Appendix B* provides a list of Stakeholders.

Section 2: Workshop Opening Ceremony

2.1 Highlights from Opening Ceremony



Photo 2: Speakers (L-R): Dr. David Singh, Mrs. Preciosa Simons, and Hon. Minister Vickram Bharrat. (Not pictured: Mrs. Stephanie Bouziges- Eschmann).

Setting the Stage, WWF

Dr David Singh, Director. WWF-Guianas

Dr. Singh welcomed participants on behalf of WWF and all key partners, expressing that it was the first time in 20 years that such a meeting was being held between Guyana and Suriname. He welcomed the steps being taken by the Governments of Guyana and Suriname to address the use of mercury in the artisanal and small-scale gold mining sectors. Further noting that there is a need to provide more information for small scale miners, alternatives for the use of mercury, information on what this will cost and the building of confidence through peer reviews.

He acknowledged partners that have been working alongside Government such as the French Facility for Global Environment (FFEM), who have been funding WWF's work in gold mining across the Guianas, the Global Environmental Facility (GEF), UNDP among other project partners. He also recognized the work of organizations such as Conservation International the Gold and Diamond Miners Association that have ongoing projects focusing on reducing the use of mercury in the ASGM sector in Guyana.

Dr. Singh further highlighted that WWF is working with the Governments of Guyana, Suriname, and France through the French Guiana Department, on mercury phase out in the ASGM sector; particularly focusing on small operators who will find it more difficult to adopt more sophisticated and expensive technologies. He stated that the work is being executed in close partnership with; the Alliance for Responsible Mining (ARM), the French National Research Institute for Sustainable Development, IRD and other Guyanese and Surinamese stakeholders, including Academia.

Dr. Singh shared that WWF believes the Guianas can be a beacon of hope for the world. Whereas a people we effectively demonstrate, good sustainable development practices, in which people and nature thrive together. Proposing that this means that we must work at those frontiers where there is room to both improve the well- being of people and where nature is threatened by human activities.

In his closing, Dr. Singh stated that *“When we put international and national partners together, solutions happen.”*

**Remarks from Primary Donor of Ms. Stephanie Bouziges-Eschmann,
“Supporting Mercury Phaseout in the General Secretary. French Facility for
Guianas” Global Environment (FFEM)**

“Activities implemented under this project are not only important to protect the environment but also public health. This project is therefore exemplary in adopting a holistic approach considering both environment protection but also public health through exposure reduction and collection of environmental and health data. It could be illustrative of the “one health” approach of which we very much support the principles.” Ms. Stephanie Bouziges- Eschmann, FFEM.

In her remarks Ms. Bouziges- Eschmann shared that projects supported by the FFEM aim to preserve biodiversity, the climate, international waters, soils, the ozone layer and to reduce chemical pollution. She highlighted that the artisanal and small-scale gold mining sector is a large cause of environmental threat globally because of the use of mercury, and the Guianas is one of the most impacted regions.

Ms. Bouziges- Eschmann outlined that with almost 90% of forests still intact and harboring close to 8,000 species, the Guianas play a vital role in the conservation of Amazonian ecosystems. However, despite the destruction caused to the ecosystems, and the threats it poses to the health of populations, small-scale gold mining is booming in the three Guianas. She noted that this activity not only contributes to deforestation, but also contaminates water and soils with mercury, harming both biodiversity and the local populations, which depend heavily on forest and aquatic resources. Besides, resulting deforestation also encourages the release of mercury already naturally present in the soil.

The FFEM is committed to supporting stakeholders and communities in acting in relation to artisanal and small-scale gold mining and the phasing-out of the use of mercury. And hopes that this project can demonstrate the effectiveness of its model, enable the sharing of lessons learned and be replicated in other regions and countries.

**Feature Remarks from Representative of Mrs. Preciosa Simons, Permanent
Government of Suriname Secretary Mining. MNR Suriname**

The Permanent Secretary began her remarks by extending gratitude on behalf of the Government, and the Honorable Minister of Natural Resources, of Suriname. She informed the workshop the former Dutch Colony is well known for its small-scale gold mining.

Ms. Simons stated that the goal of the Natural Resources Ministry of Suriname is to utilize the country’s natural resources in the best way possible; that is environmentally and economically

feasible. Elaborating that this includes the constant balancing of all resources and drafting of policies in the best interest of the country.

She went on to say that while Suriname is no stranger to small-scale gold mining and unfortunately like in many other parts of the world and in Guyana, the use of mercury has affected the country enormously. That through ongoing projects; like the EMSAGS Project and partnerships with WWF, UNDP etc. the Ministry is finding ways to address the use of mercury.

The PS shared that the Government of Suriname has committed itself to the Minamata Convention and have put in place laws and policies as recent as 2020, to help support this. Added to this the government is also evaluating ways in which they can distribute mining concessions to local communities and villagers. This process will also help to inform them of the harmful use of Mercury.

Keynote Address

**Honourable Vickram Bharrat, Minister.
MNR Guyana**

The Honorable Minister began his keynote by expressing how very pleased he was to be part of the workshop and what is an important topic of discussion. He expressed his hope that the outcomes and recommendations coming out of the workshop will move to a place of implementation; noting that oftentimes workshops are held and there are no subsequent follow-up actions. Minister Bharrat stated that this needs to change, issued a challenge to all stakeholders present at the workshop to “do the work; especially at this time, when we can see and feel the effects of Climate Change.”

The Minister expressed that view that the Ministries of Natural Resources, both in Suriname and Guyana have the difficult task of balancing economics and the environment. Noting that the extraction of natural resources cannot be done without any impact to the environment, however, that extraction can be done in a responsible and sustainable manner, to minimize the destruction to out the environment.

Minister Bharrat affirmed that the environment is important to all of us and stated that whether transmissions that contribute to climate change comes from the UK, America, Japan, or any other high-emission country; stated that those transmissions affect the entire world. Thus, Guyana and Suriname have been playing an important role in protecting the world and that this is something to be proud of. He noted that the two countries are blessed with an abundance in natural resources, they possess the largest forest coverage by size in the world and most of their virgin forests are in tack.

The Minister noted that there are many countries, especially developed countries who look to countries like Guyana and Suriname, to ensure that the environment is preserved, that mining is done in a responsible and sustainable manner, that there is no new oil exploration. However, stated that if this is the case, who is ensuring that the lives of the citizens of Suriname and Guyana are improved; and questioned where the resource will come from to facilitate this development? Minister highlighted that the two countries are of the few countries in the world

who are at net zero, despite being engaged in activities such as gold mining and being new and emerging oil and gas economies. And that despite low emissions, avenues where it can be further reduced significantly over the next few years are being streamlined, pointing to Guyana outlining these objectives in its low Carbon Development Strategy 2030.

The Honorable Minister went on to state that Guyana, like Suriname has signed onto the Minamata Convention and is committed to ensuring the minimization of the use of mercury and eventually the complete elimination of its use. Recognizing however, that to achieve this, there is a need for alternatives; ones that are affordable. Noting that there is need for more organizations working towards finding affordable, reliable alternatives to mercury that is environmentally friendly and that can increase recovery rate.

Minister Bharrat advised that small scale miners should be encouraged to also focus on recovery rate as this will aid in the safeguarding of the environment and mining becomes more feasible.

He stated that there is much more that the two countries can do and learn from each other; not only in the mining sector but now that the two countries are new and emerging oil and gas economies, they can continue to build on the relationship that already exists.

The Minister concluded his address by extending best wishes to Dr. Singh and the WWF Team and assured that there is a partner in the Ministry of Natural Resources, promising that the Ministry will continue to work together to bring relief to small scale miners and safeguard the environment while doing so.

2.2 Take-Aways from Opening Ceremony

Following the remarks and keynote address of the Opening Ceremony, the Chair provided some take-away points that emerged in the presentations made by each speaker. These may be noted as follows:

- Presentations from all speakers in the opening ceremony indicate that there is strong government commitment at the regional level, international development partners support, legislative and policy framework, data, and programmes in place to advance the goal of reducing and phasing out mercury in the ASGM sector.
- Speakers highlighted the importance of each partner responsibility in the implementation of policies, programmes, projects etc. Is ultimately what will make change possible in contributing towards the goal. Therefore, it is important for each entity to fulfill its role and mandate, a challenge issued by the Minister of Natural Resources.
- Creating spaces for regular knowledge sharing and learning, networking, brainstorming, and planning was identified as an important element of the process of reaching the goal of mercury phase-out.
- The Permanent Secretary of Suriname highlighted in her remarks that it is important to create and facilitate the creation of an enabling environment that would see the country benefit from its natural resources, in a way that is both economically and environmentally feasible.
- Dr. Singh pointed out that mercury use for the ASGM sector is a matter of livelihood, therefore this must remain central to the conversations being had and any strategies, policies or plans that are made must include these voices and cater to those needs. Issues

related to accessibility and affordability must be addressed as a part of any plan moving forward.

- The Minister of Natural Resources highlighted the importance of Guyana being able to balance its economics and the environment. Pointing to the role of the experts in attendance to help guide and advise, as the country moves forward with its development agenda for utilizing its natural resources.

Section 3: SESSION ONE - Knowledge Sharing on Mercury Phase-out in ASGM Initiatives Across the Guianas

3.1 Highlights from Panel Presentation



Photo 3: Session One Panelists (L-R) - Ms. Sandra Bihari, Mr. Rene Edwards, Mr. Cleavon Cameron, and Mr. Johannes Abeilie. (Not pictured: Dr. Laurence Maurice)

The session entailed presentations outlining various initiatives across the region; these outlined quite comprehensively the work that was being done at a national level to address challenges in the mining sector in Suriname, the processes and criteria used for selecting mining pilot sites by ARM, update on the collection and production of scientific data on Hg by IRD, and the ongoing project on responsible mining in Guyana by CI-Guyana.

Improving Environmental Management in the Mining Sector of Suriname, with Emphasis on Gold Mining (EMSAGS)- Sandra Bihari, Project Coordinator

Main Challenges in the Mining Sector in Suriname

Some of the main challenges faced in the mining are.

- Outdated technology – even though other methods exist that would have less impact on the environment and generate higher revenues, the older technologies are used; especially by the ASGM Sector.
- Mercury pollution of waterways and environment gravely affect the health of miners and the people who are residents of neighboring communities.
- Mining, especially the ASGM, is the direct cause of deforestation, contributing to 73% of total deforestation.
- Lack of capacity of government agencies regarding regulation of the mining sector.

- While drafting the project document of the EMSAGS project there was research done on the existing barriers in the gold mining sector and some of these included.
 - ✓ a lack of institutional, technical, and financial capacity
 - ✓ lack of access to environmentally responsible mining technologies and tools and inadequate incentives to apply them
 - ✓ weak legal and policy framework in the mining sector

Objectives of Project

- Improve environmental management in the mining sector of Suriname, with the emphasis on independent and artisanal small-scale gold mining.
- Promote uptake of environmentally responsible mining technologies

Project Outcomes

- Strong institutional and technical capacity of the main stakeholders; Government, small scale gold miners, institutions, such as, NIMOS.
- Strong policy and planning framework for the management of the environmental impacts of artisanal small-scale gold mining
- The developing, stimulating, increasing knowledge about environmentally responsible mining technology
- Increase knowledge availability and sharing at the national and regional scale on environmentally responsible artisanal small-scale gold mining.

Selecting mining pilot sites in Guyana & Suriname- Cleavon Cameron, Technical Coordinator, Guyana ARM & Johannes Abielie, Project Coordinator, Suriname ARM

Site Selection in Guyana

- When ARM was established in Guyana, representatives from the organization visited Mahdia; Micobie, Campbelltown and Puruni
- Sites were selected based on, Safety, Legitimacy, Infrastructure, Local Support, Continuity. After an evaluation was done of the identified sites it was decided that Micobie and Campbelltown would be the sites to introduce the new mercury free technology.
- During this period there were 14 field missions to Mahdia, 2 field Missions to Mid-Mazaruni, 2-day trips to GGMC Lab- Linden.
- There were 8 ARM personnel directly involved in these missions. UG personnel were also directly involved.

Site Selection in Suriname

- When this process commenced, a consultant was hired to do an assessment on all the potential mining sites that could be used.
- There is the “Green Stone Belt,” in Suriname, which is geologically the richest part of the country in gold.
- 5 sites were selected, and they were looked at from a social point of view, an environmental point of view and the mining situation in these areas were also evaluated.

- There were several indicators that were applied to the sites.
 - ✓ **Safety**- this was divided into two parts; Occupational Safety (are workers being safe) and as well as if it would be safe for the project team to conduct their research in that area etc.
 - ✓ **Infrastructure**- some of the mining sites in Suriname are challenging to reach and this would have a significant impact on the project if sites that are challenging to reach were selected.
 - ✓ **Local Support**- What does that local community think about the project? How do they look at the action the organization is going to take to implement change?
 - ✓ **Formality**- Small scale mining in Suriname has derived from an illegal context, thus formality is looked at from a broad perspective. These areas are traditionally assigned to villages and if a villager is mining in his or her own village this is seen as more formal than if an outsider were to be mining in a village that he or she did not belong to.

A Regional observatory on mercury: Update, collection, and production of scientific data on Hg- new tools at the cross border- Dr Laurence Maurice, Senior Researcher IRD

First results on Hg human exposure

- Official WHO threshold for Hg in human hair is 10 ppm ($\mu\text{g Hg/g}$ of dry hair) but first symptoms can be observed from 5 ppm => We propose a threshold of 5 ppm to limit adverse health effects

In Suriname

- The human exposure in Suriname is not alarming as the mean and median are in the range of these measured in main South American countries (83% < 5ppm; N=67)
- a “red zone” in Company Creek, for people identified as fishermen or who regularly eat local freshwater fish (Brokopondo reservoir, higher risk)

In Guyana

- The human exposure in Guyana is a health issue mainly in native communities (70 to 93% > 5 ppm: 60% >10 ppm) and in gold-mining areas (Fair View & Micobie, 62 & 70% > 5 ppm)

Responsible Gold Mining in Guyana- Rene Edwards, Conservation International, Guyana

The work on Responsible Mining has been conceptualized around 4 areas.

1. **Exploration**- this is to ensure that mining is done only where there are commercially viable deposits of gold and to avoid the hopscotch approach. If mining is done where there are commercially viable deposits then they will cut down less trees and more importantly the miners, they will need less resources.

2. **Improving Recovery Rate-** Reducing the use of mercury or eliminating it in areas where it is feasible, this is in line with the Minamata Convention. If recovery rates are improved, this will result in more revenue for miners.
3. **Rehabilitation of mined out sites-** ensuring that sites are restored into some form that can be productive.
4. **Market-** hopefully, eventually there can be an incentive or premium for a responsibly mined goal.

Working with Campbelltown

- o This is an indigenous community located in the middle of Guyana; Region 8, Potaro-Siparuni and over the past 3-4 years Conservation International has been able to work with this community to develop their long-term village plan. Within their village plan they have incorporated mining and responsible mining. It is important to ground this work in long term plans.
- o Though the community has outlined gold mining as one of their key livelihood activities, they recognize the importance of diversifying the community's economy because gold in their context is a nonrenewable resource.

Demonstration Sites

- o There are currently two demonstration sites: one close to Mahdia in New Jack City and another in Purini. Conservation is seeking to set up two additional sites: one in collaboration with the Guyana's Gold and Diamond Association in the Kaburi area. The other will be set up in Karori Village close to Bartica, this is another indigenous village of miners.

Challenges

- o Attention needs to be paid to the economics around the implementation of new technologies, because the cost for mercury is still relatively low
- o Many of the small-scale gold miners do not make significant profits and because of this attention needs to be given to the small and vulnerable players in the implementation of new technology.

3.2 Plenary Discussions on Panel Presentations

Notes on the plenary discussions that followed the panel presentations are presented below verbatim to capture the full essence of the depth and substance of the exchange. There was a high level of interest from all workshop participants, which lead to a fruitful exchange with panelist.

<i>Questions/Comments</i>	<i>Response from Panelists</i>
<p>Question posed to Johannes Abielie- Ingrid Sarabo - Conservation International, Guyana</p> <p>‘It was mentioned that small-scale mining in Suriname is not legal. Given this, how is it that the organization can work with miners in a real way?’</p>	<p>Response- Johannes Abielie, ARM-Suriname</p> <p>‘This is a step that must be taken in order to get some amount of meaningful interaction with the miners as they are the ones who have to make the change. The organization fosters and facilitates this change but at the end of the day the miners are the ones who will have to transition to the systems that are having adverse effects on the environment and the communities.</p> <p>The law in Suriname is geared towards large scale mining and in order to be legal small-scale mining would have to meet requirements that are set for large scale mining. Thus, the interaction that the organization has with small scale miners is informal and it is a risk, change you have to take.’</p>
<p>Comment/ Question- Mr Woolford, GGMC</p> <p>‘I have an interest in the work of IRD, particularly because they are looking at the scientific aspect of things. I am aware that there has been over 130 years of mining with mercury in Guyana and when you look at the size of equipment they were using to mine, such as bucket line dredges, amalgamation plates, etc. in the Mandia River, etc. you’d know that there has been a lot of mining done with mercury in Guyana.</p> <p>When GGMC several years ago did a project that looked at Mercury in persons, from urine and air samples, and mercury in the river system and so on, personally, I was astonished that it was surprising that the levels of mercury discovered was not more because of the number of years of mining with mercury.</p>	<p>Response- Dr. Lawerance Maurice, Senior Researcher, IRD</p> <p>‘Thank you for your question, there is an ongoing project as you may know...</p> <p>In order to provide an answer specifically to the considerations of the historical impacts of mercury use we plan to do further research in some of the areas used in the past, focusing on some of the main impacted rivers in Suriname and Guyana.</p> <p>My email address is on the last page of my presentation, so please feel free to write to me and I will answer whatever further questions you may have.’</p>

<p>I am interested in what IRD intends to do, with regards to matching the historical process and trying to get a clear picture on if the quantity of mercury that has been used is really within the parameters.</p> <p>I am hoping that we would be able to participate in an ongoing process to see what is taking place and perhaps IRD can look at what has been done in Guyana.</p> <p>Mercury poisoning was mentioned. I am hoping that some of these projects can do some more work, to try to get medical information that says over the years we've had 10, 20, 40 people who've suffered from mercury poisoning.'</p>	
<p>Comment/ Question posed to All on the panel- Rochella, Final year Chemistry Major, University of Guyana</p> <p>'Has any of the countries represented in the room considered, explored, or even tried the use of Borax, Sodium Borate as an affordable alternative to mercury?</p> <p>Borax is usually used to purify the gold, however research has been done in Tanzania, where they actually used Borax to smelt the gold concentrate, and this was used instead of mercury and this was a successful project.'</p> <p>Follow-up Response/ Question- Rochella, Final year Chemistry Major, University of Guyana</p> <p>'It seems to me that it can be done, if there are persons who are well equipped to do it and have the materials needed. The problem may</p>	<p>Response- Lloyd, GGMC</p> <p>'The use of Borax means the use of a concentrate that is very high in gold content and traditional using something like the sluice box the concentrate does not go over 50% or 60% in terms of gold content and this includes impurities, you would need something to get rid of those impurities. Something such as ... one of the alternative technologies like the gold cube that will get the gold content over 100%.</p> <p>There was a specialist that was brought in from the Netherlands a few years back that worked alongside GGMC, and the information is available.'</p> <p>Response- Lloyd, GGMC</p> <p>'The commission offers training free of cost to miners, technology demonstrations, etc. For this there is not much training that is needed but basic training can be done. Our approach is to first raise the efficiency of some of the occurring mining practices, for example; in</p>

<p>be that this will require a lot of training, which I think is something we can invest in.’</p>	<p>using the sluice box, if you cannot afford to go to one of the other processing technologies we will help you to boost your efficiency and recovery with the use of the box etc. Our goal is to first make the other alternatives economically feasible and attractive to the miner and the environmental payoff is inevitable.’</p> <p>Response- Preciosa Simons</p> <p>‘Thank you, Sandra, for referring this question to me. In Suriname one of the mining companies from the Government has done some research with Borax, but the results were not good. The process was very intensive, it took time, this was tried with a few miners, but it was evident that they were more accustomed to working with mercury. The mercury makes the process faster and easier.’</p>
<p>Comment/Question posed to Rene Edwards- Calvin Bernard, University of Guyana</p> <p>‘...in relation to the issue of safety, though the wider system is being addressed, will what be being done make the system safer? There are many risks that are involved for miners in the current system.</p> <p>The issue of the cost of moving away from mercury, mercury has been cheap for a very long time, and this makes it very attractive. There is a need for us to look beyond just environmental issues, but we need to look at a change in the overall system... what we expect in terms of the revenue returns need to change. This is because if we look at technologies that will cost more miners may say that they should then be able to sell at a higher price.</p>	<p>Response- Rene Edwards, Conservation International, Guyana</p> <p>‘In relation to safety, at all the demonstration camps we are applying the Planet Gold Standards that are based on the Craft Standard that was mentioned earlier; this covers occupational Health and Safety. This is a big issue in Guyana, we read articles all the time about persons dying at mining sites. There was a consultant who worked with the team to help evaluate the CRAFT Planet Gold Standard and apply it to the local context, and now these will be applied to the sites; having various policies related to Child Labour, Gender etc.</p> <p>Ashanta (today’s facilitator) did do an amazing study on Gender in Mining, and this is freely available to the public for consumption.</p> <p>In terms of cost effectiveness, for our friends at GGMA they have placed emphasis on price</p>

<p>Is there an understanding of the mark- up you are getting from using mercury? Can we affect the price at the market level? for example, specialized markets, can there be value added?</p> <p>People have in the past spoken about sustainable mining; and the question is how can you make mining sustainable when it is a finite resource? There was mention of diversifying, and this is great but how will you convince the miners that you can take a short-term thing and have a long term impact?’</p>	<p>points at each of the stations within the demonstration sites. We are currently collecting data on recovery rate and cost; we have also looked at studies a few years ago on the profitability of mining and at the beginning we were a bit excited but this is certainly a work in progress. There are jewelers in Guyana who are willing to buy responsibly mined gold and produce “EL Dorado " branded jewelry, but the premium is not there as yet, maybe we would have to look at international markets. However, a great challenge that we would face in addition to all the other challenges is the volume of gold being produced as opposed to what the buyers want and along the value chain being able to secure the gold, and to have traceability so that we can verify that this is responsibly mined gold. As a part of the work that Conservation International is doing, we are testing how this can be done and the Guyana Gold Board has been excellent in supporting this work.</p> <p>On the point of being holistic and mining being finite, this is hinged on planning and embedding this in planning and in terms of wider land use issues at various levels. From a local level to a regional approach on how resources are allocated and used. We have to find ways of doing practical land use planning and ensuring that when the resources come from a particular area, there is investment from the local level to the regional level to create lasting wealth, so as we draw down on this finite resource, we are building wealth in other areas.’</p>
<p>Question/ Comment- Laura George- Amerindian People’s Association</p> <p>‘...there are Indigenous Peoples who are involved in mining but there have been concerns about decision making with regards</p>	<p>Questions- Dr. David Singh, Director, WWF-Guianas</p> <p>‘... In relation to the market end of the chain, what has been done thus far or what is being done next?’</p>

<p>to the selection of communities where mining can be done; as this impacts our way of life, the environment, our health etc. How do you intend to convene a discussion on Indigenous Peoples' involvement in this regard?</p> <p>I would really like to see a lot more progressive plans to reduce mercury use in the Guianas and have indigenous peoples more involved.</p> <p>There should also be a more proactive campaign and information sharing.</p> <p>How might Indigenous Peoples' health and well- be concentrated on in this entire project?'</p>	<p>The second part relates to the time frame, what happens next when the project comes to an end? How do we ensure that we keep bundling forward, rather than going through terrible halting cycles that affect the people who really matter and how do we knit together various projects?</p> <p>The third question is in relation to the Mining Training and Extension Centers (MTECs) can this be reflected a lot more, to see if Guyana can do something similar? We do have extensions for our Agricultural Services here in Guyana, but the idea of extension centers for gold mining that goes beyond this is incredible.'</p>
<p>Comment/ Question- Gillian Williams, Toasho, Campbelltown</p> <p>'... from a miner's perspective, many of us in the village are small-scale miners and we welcome this initiative. We understand the negative effects of mercury on the environment and miners but what we find is that many miners have the perspective that the new equipment is expensive. Many are not generating enough revenue to make it possible for them to purchase this equipment.</p> <p>How are the agencies here planning on assisting small scale miners with regards to acquiring the required equipment?'</p>	<p>Response- Sandra Bihari, EMSAGS</p> <p>'With regards to engagements with Indigenous Peoples; within the Surinamese context, being able to engage with both groups within the society is key to all of our projects. Within our organizational structure these groups are represented and there is a stakeholder engagement plan where engagement with all stakeholders is outlined, including the Indigenous peoples.</p> <p>We are also currently developing an ITP specific plan on how to further engage with these groups and on the level of community engagement, we have representation of the local communities.</p> <p>In relation to MTECs, the first focus of this is training of the small-scale miners on environmentally responsible mining technology. It will also offer additional services; health, information on how to gain a mining concession, sustain business etc.</p>

We are in the establishing stages; thus, this will be piloting, but we would be open to discussing this with other organizations and Guyana to see how we can work together to make this a real thing.’

Response- Rene Edwards, Conservation International, Guyana

‘This is certainly an area for collaboration and learning between agencies and Suriname and Guyana. The Mining Association does have a Technical Services Unit that they have established and GGMC also does have the Mining School, these services can certainly be expanded. As Mr. Singh did mention there are lessons to be learned from Agriculture, such as, the farmer field school, which the demonstration sites in mining are similar to.

In relation to Indigenous Peoples, there are issues of safeguards and a good place to start is embedding these in the CRAFT Standards, OACE Standards etc. which are all congruent. We can use these to build on what we have in our laws, good practices, issues of Occupational Health and Safety to secure human well-being.

We are currently working with the National Toshias’ Council (NTC) on an initiative that is centered around Indigenous Peoples and Responsible Mining. There are 6 members on the NTC who essentially vocal points in relation to this project are, and we are looking at the subject of free, prior and informed consent.

Another important place to start is the villagers coming together and doing their village plans, because this provides the bases from which you build out the activity of mining in line with what the vision of the village is. This is where you can have the conversations about tradeoffs, land use and how resources are allocated.

Obviously, it does not end in the village, because villages are linked in landscape to other concession holders, other resource users; Mining, Forestry, Carbon etc. So, from a village level planning and action, there should be a distracting region and then we can build this into our National Land Use Plan.

There should be round-table discussions and stakeholder engagements at the village and sub- regional levels to talk about issues and the challenges we face, the conflicts that are there on the ground and try to solve them closer to where they exist.

In relation to markets, there are opportunities there, we can come together to flesh these out, like the NAPS and how this was approached.

In relation to timelines, if we are using the NAPS as an organizing framework, the projects can come and go but the framework remains, and projects can be added and or improved.’

Response- Johannes Abielie, ARM-Suriname

‘The knowledge and experience that we are building up right now for these projects is very expensive, very scarce, and unique. We need to find a way to harvest this and keep it, because we cannot let it fade away. This would affect your credibility among the people that you work with, you certainly cannot leave them halfway.

ARM has been engaged in intensive talks with potential partners to keep going on with these kinds of projects or even starting projects that seek to improve the mining techniques.

In relation to the point raised by Ms. Williams small-scale mining in Suriname is not small, over the years they have processed more ore to

get more money, and this has led us to a situation, in order to transition them you need very expensive machinery to match their capacity. This has been a challenge for us, but it also presents the opportunity that they are more financially stable and once they understand the value of transitioning to more sustainable mining systems, we can request some participation from them on the cost that goes along with the transition.'

Response- Cleavon Cameron, ARM-Guyana

'There is a part of the project that is concerned with helping miners understand the transition and the importance of it. But the concern does lie in funding.'



Photo 4: Plenary Discussion with Panel Presenters.

Section 4: SESSION TWO - Discussion Towards Regional Cooperation and Collaboration in ASGM

4.1 Outcome of Work Group Sessions



Photo 5: Participants from the Suriname Delegation in Group Work Session.

The final substantive session of the day was a participatory session which entailed group-work centered around the following three main questions:

1. What are the priority areas for cooperation and collaboration on a Guianas level?
2. What do we need for regional cooperation and collaboration?
3. Who are the key actors for the cooperation and collaboration?

Participants were separated into groups and provided with a guidance note on how to focus their discussions and provide feedback in plenary. Guidance note may be referenced in *Appendix D*.

The following information outlines feedback from the working groups in response to the questions posed.

Question 1: What are the priority areas for cooperation and collaboration on a Guianas level?

Groups	Priorities for Cooperation and Collaboration	What is needed for Regional Cooperation and Collaboration	Key Actors for Cooperation and Collaboration
<u>Group 1</u>	<ul style="list-style-type: none"> ○ Research and Trial for alternative methods ○ Affordable recovery systems for small scale mining- The goal should be to make alternative technology more affordable so that small scale miners can access and implement those. ○ Exchange of Geological Data- in other countries their research methods in geology are more detailed and extensive than Guyana's. ○ Development of Legal framework (Mining regulations etc.)- As mentioned earlier in one of the presentations, the Maroons who practice small-scale mining in Suriname do so illegally, but here in Guyana we do have extensive regulations and regulatory framework for this. This is an area that Guyana and Suriname can cooperate on. 	<ul style="list-style-type: none"> ○ Unilateral Public Policy Campaign- Both countries can come together and learn from each other on how to better improve Public Policies. ○ Networking with Guyana to create regulations and codes of practices- Guyana is yet to have approved codes of practices for small and medium scale miners, this would enhance the regulatory process. 	<ul style="list-style-type: none"> ○ GGMC - monitoring, enforcement, education, surveys, improvement of mining techniques, funding for recovery technology. ○ Ministry of Natural Resources- Spearhead Regional cooperation ○ Mining Stakeholders- They will help us to identify gaps in the mining process from the bottom-up, while the Ministry helps to identify gaps from the top-down.
<u>Group 2</u>	<ul style="list-style-type: none"> ○ Mining in the Guianas- Marketing and trade should take place between counties who are participating in mercury phase out regionally. ○ Impact on the environment; air, forest, waterways- This is an area in which collaboration is needed. ○ Employment for Residents/ Miners 	<ul style="list-style-type: none"> ○ More Forums- such as the one held today and this should take place more often in order to keep up with what is current in the field. ○ Dialogues Consultations- There should be 	<ul style="list-style-type: none"> ○ Miners ○ All Government Agencies ○ Private Sector ○ NGOs

Groups	Priorities for Cooperation and Collaboration	What is needed for Regional Cooperation and Collaboration	Key Actors for Cooperation and Collaboration
	<ul style="list-style-type: none"> ○ Safety Practices in Mining- Adhering to the mining act and code of practice. ○ Acquiring Mining Equipment and Financing- For small miners acquiring equipment is extremely expensive. 	<p>consultations with miners in the fields.</p>	
Group 3	<ul style="list-style-type: none"> ○ Demonstration- Extension Services ○ Marketing- The issue is that even though you may have gold that is produced with mercury free technology, the amount is not enough to support the market or demand for it. ○ Education and Awareness- This is needed in order to change behavior in terms of the use of mercury in the mining culture. 	<ul style="list-style-type: none"> ○ A National Working Group- For both Suriname and Guyana, we would need to organize ourselves first in order to have regional cooperation and collaboration. This national working group can be led by the Ministry on the basis of the National Working plan for ASGM. The national working will collect information from all the agencies that are working with a responsibility for mercury phase out and feed this into the multi-stakeholder platform which will have open 	<ul style="list-style-type: none"> ○ NIMOS ○ The Ministry of Natural Resources- Guyana/ Ministry of Environment- Suriname ○ UNDP ○ WWF ○ CI- Guyana ○ GGMC- GMD ○ PFG

Groups	Priorities for Cooperation and Collaboration	What is needed for Regional Cooperation and Collaboration	Key Actors for Cooperation and Collaboration
		<p>dialogue between both Suriname and Guyana.</p>	
<u>Group 4</u>	<ul style="list-style-type: none"> ○ Capacity Building (MOU with Universities) ○ Establishing of MTECS ○ Collaboration on policy and legislation ○ Implementing NAP ○ Mining Strategy Such as ARM ○ Mining in Water (Gold, building machinery) ○ Research and data sharing (NRTM)- in aid of real time monitoring ○ Knowledge sharing with GMD and GGMC- for example, in Monitoring and Implementation 	<ul style="list-style-type: none"> ○ High Level adaptation of priority areas ○ Allocation Funding/ Financing through existing projects or funds 	<ul style="list-style-type: none"> ○ Government- for Policy making; Ministry of Natural Resources, Ministry of Spatial Planning and Environment ○ Institutions- NIMOS, Research and Knowledge/ Education (ADEK, SBB, GMP) ○ Mining companies- small, medium and large scale ○ Traditional Communities
<u>Group 5</u>	<ul style="list-style-type: none"> ○ Research- this was chosen is that in 2000 a program was executed here in Guyana like the program that the BIRD is doing. The results at that time did not show very significant results such as this one. Thus, if we had access to this information, we would have known what was done before. ○ Regional Data Repository & Allocation- There may be information out there, but someone may not know 	<ul style="list-style-type: none"> ○ Strengthening Multilateral Partnerships- Because this workshop has to do with the Guianas and this topic transcends borders, strengthening regional partnerships with MOUs, TOR, Treaties, Inter Agencies 	<ul style="list-style-type: none"> ○ Foreign Affairs - In any situation where cross boundary interactions are taking place, this Ministry should be involved. ○ Ministry of Natural Resources and Fellow Agencies- EPA, MOAA, AC,

Groups	Priorities for Cooperation and Collaboration	What is needed for Regional Cooperation and Collaboration	Key Actors for Cooperation and Collaboration
	<p>where to look, and in this sense information is not accessible. Thus, information should be at a centralized place (University/ GGMC etc.) where anyone can have access to the information, even our regional colleagues.</p> <ul style="list-style-type: none"> o Effective continuity of knowledge- For information to be available the continuous sharing of knowledge must take place. 	<p>sharing of information.</p> <ul style="list-style-type: none"> o Shared Government Policies- This is to aid in countries/ parents knowing what each other's stances are on a matter, <i>for example</i>; Guyana signed the Minamata Convention in 2013/14 but Suriname did not sign on to this convention until 2018. 	<p>Miners, HC, Forestry</p>
Group 6	<ul style="list-style-type: none"> o Knowledge transfer and lessons learned for research and projects executed o Enhanced Reporting, Monitoring & Evaluation system, and a Task Force for the trans-boundary movement of mercury and the inventory of mercury within the Guianas. o Collection and analysis of the impact of mercury within the mining areas. o Strategic Awareness and Sensitization Plan- This should involve a Communication Plan and Stakeholders' Management Plan. o Financing mechanisms and markets that support mercury free technology for 	<ul style="list-style-type: none"> o Regional Working groups from key players across the sectors within the Guianas, for example; WWF, CI, ARM, Etc. o Greater strengthening of the governance framework at the local level and this must be legislated and at the regional level this must be done in accordance to signed treaties. 	<ul style="list-style-type: none"> o Miners and their representative bodies o The Executive arm of Government; particularly Cabinet because they are critical in ensuring that policies will go into place. o Legislative arm of Government; the parliament and its subject Minister of Resources being able to draft, debate and approve

Groups	Priorities for Cooperation and Collaboration	What is needed for Regional Cooperation and Collaboration	Key Actors for Cooperation and Collaboration
	<p>the ASGM sector. There is greater need for collaboration between lending agencies and from a government point of view the types of initiatives and incentives that are given to create the environment for those investments.</p> <ul style="list-style-type: none"> ○ Suppliers being able to bring Mercury free technologies, so that there is reduced consumption of mercury in ASGM Sector ○ Better Formalization and enhancement of the regulatory and legislative framework. As it relates to formalization with respect to regulation, there is a need to legislate that miners be able to do baseline of potential areas that they want to mine. Samples can be taken of, for example, the downstream end of their proposed mining site and existing mining pits within their prospects and the mercury levels can be ascertained jointly between the miner and the regulatory agency. After this baseline information is collected, then licensing can be done to facilitate mining. 	<ul style="list-style-type: none"> ○ Policies and Monitoring framework 	<p>regulations and laws</p> <ul style="list-style-type: none"> ○ Suppliers of mercury free technologies play an important role as it relates to making the technology affordable based on the economy of scale and the kind of incentives that are given to them, such as the removing of duties for the importing of those equipment ○ Academic Community, Learning Institutions, UG ○ GGMC, Mining School ○ EPA/ Ministry of Health ○ Institutional capacity needs to be strengthening, not just for monitoring and reporting but also for enforcement.



Photo 6: Participants of the workshop presenting group work conclusions.

Section 5: Conclusions /Recommendations

5.1 Priorities for Cooperation and Collaboration

Discussions among participants of the workshop on the question of priorities for cooperation and collaboration centered around some key thematic areas which are outlined below.

- 1.** Enhance and scale up research and trials/testing of alternative methods for reducing or phasing out mercury in the ASGM sector. Along these lines, the need to ensure that new technologies are accessible and affordable for small-scale miners was highlighted as critical to ensuring adaptation within the industry.
- 2.** Particularly in the case of Suriname, there is need for the development of a Legal framework (mining regulations etc.), as it is essentially illegal to practice small-scale mining. There is opportunity here for the two countries to partner and learn from each other as Guyana has an extensive regulations and regulatory framework
- 3.** Continuously monitor and evaluate the relative impacts on the environment; air, forest, waterways, and on human life, so that informed decisions can be made with regards to development priorities, national policies and strategies, and legislation.
- 4.** Financing mechanisms and markets that support mercury free technology for the ASGM sector need to be further explored. There is greater need for collaboration between lending agencies and from a government point of view, and the types of initiatives and incentives that are given to create the environment for those investments.
- 5.** Strategic Awareness and Sensitization Plan- This should involve a Communication Plan and Stakeholders' Management Plan. Education and Awareness must be a key focus of the plan with a focus on behaviour change approaches in terms of the use of mercury in the mining culture.
- 6.** Regional Data Repository & Allocation- There may be information out there, but someone may not know where to look, and in this sense, information is not accessible. Thus, information should be at a centralized place (University/ GGMC etc.) where anyone can have access to the information, even our regional colleagues
- 7.** Enhanced Reporting, Monitoring & Evaluation system, and a Task Force for the trans-boundary movement of mercury and the inventory of mercury within the Guianas.
- 8.** Collection and analysis of the impact of mercury within the mining areas.

5.2 Regional Cooperation and Collaboration

Workshop participants discussed the needs for enhancing regional cooperation and collaboration towards reducing and phasing out the use of mercury in the ASGM sector. The conclusion from the discussions proposes that a unified approach stands to benefit the Guianas in a sustainable way.

1. Implement a unilateral public policy campaign across the Guianas
2. Convene more spaces for networking, sharing in experiences and lessons learned, approaches and initiatives for addressing gaps in policies, regulations, and codes of practices among other processes. This strengthens and builds regional cohesion.
3. Ensure meaningful consultations with those most impacted and vulnerable to any potential negative consequences of reducing or phasing out the use of mercury in the ASGM sector. This includes women miners, Indigenous Peoples, and 'pork-knockers.
4. National Working Groups - For both Suriname and Guyana, would need to be organized we first in order to have Regional cooperation and collaboration. This national working group can be led by the Ministry based on the National Working plan for ASGM. The national working will collect information from all the agencies that are working with a responsibility for mercury phase out and feed this into the multi- stakeholder platform which will have open dialogue between both Suriname and Guyana.
5. Strengthen Multilateral Partnerships - in particular strengthening regional partnerships with MOUs, TOR, Treaties, Inter Agencies sharing of information.

5.3 Key Actor for Cooperation and Collaboration

Discussions around key actors resulted in a comprehensive list that included all key stakeholders and identified some parties that were not previously considered as being key to the discussions and processes.

1. Government- for Policy and Law making; Ministry of Natural Resources (also Spearhead Regional cooperation), Ministry of Spatial Planning and Environment,
 - i. Foreign Affairs - In any situation where cross boundary interactions are taking place, this Ministry should be involved.
2. Guyana Geology and Mines Commission - monitoring, enforcement, education, surveys, improvement of mining techniques, funding for recovery technology.
3. Regulatory and other government Agencies- EPA, Forestry, NIMOS, SBB, GMP)
4. Miners and their representative bodies
5. NGOs
 - i. UNDP
 - ii. WWF
 - iii. CI- Guyana
 - iv. PFG
- 6.
7. Mining companies- small, medium, and large scale
8. Indigenous Communities

9. Suppliers of mercury free technologies play an important role as it relates to making the technology affordable based on the economy of scale and the kind of incentives that are given to them, such as the removing of duties for the importing of those equipment
10. Academic Community, Learning Institutions
 - i. GGMC Mining School
 - ii. ADEK



The workshop concluded with closing remarks from the Country Manager of WWF Guianas (Guyana), Ms. Williams who thanks participants for their contributions, and indicated that the outcomes of the day will inform and guide decisions with regards to actions moving forward. Participants were then invited to view a demonstration that was set up to demonstrate one of the proposed technologies being used to reduce the use

of mercury in the ASGM sector.

Photo 7: Closing Remarks by Ms. Williams.

Appendix A: Workshop Agenda

Agenda Golden Opportunities: Cooperation for Reducing Mercury in Gold Mining October 3rd, 2022 Grand Savannah Suite, Pegasus, Georgetown

No. Mins	TIME	AGENDA ITEM	SPEAKERS	Facilitation Notes/Methodology
OPENING SESSION: 10:00 – 10:45 AM				
5 mins.	10:00-10:05	Opening of Event/Welcome	Facilitator, Ashanta Osborne-Moses	Brief intro/remarks Welcome Overview of Day Online participants
10 mins.	10:05 – 10:15	Setting the Stage, WWF	Dr David Singh, Director. WWF-Guianas	Introduction of Speakers Highlight key take-aways and close ceremony
5 mins.	10:15 – 10:20	Remarks from Primary Donor of “Supporting Mercury Phaseout in the Guianas”	Mr. Stephanie Bouziges-Eschmann, General Secretary. French Facility for Global Environment (FFEM)	Close of Opening Ceremony: • Housekeeping: Breaks and next session
10 mins.	10:20 – 10:30	Feature Remarks from Representative of Government of Suriname	Mrs Preciosa Simons, Permanent Secretary Mining. MNR Suriname	
15 mins.	10:30 – 10:45	Keynote Address	Honourable Vickram Bharrat, Minister. MNR Guyana	
15mins	BREAK			
SESSION 1				
KNOWLEDGE SHARING ON MERCURY PHASE OUT IN ASGM INITIATIVES ACROSS THE GUIANAS				
15 mins.	11:00 – 11:15	Improving Environmental Management in the Mining Sector of Suriname, with Emphasis on Gold Mining (EMSAGS)	Sandra Bihari, Project Coordinator, EMSAGS Project-NIMOS	All presenters are on a Panel/Head-table Facilitator moderates process keeping presentation flows and manages time.
15 mins.	11:15 – 11:30	Selecting mining pilot sites in Guyana and Suriname	Cleavon Cameron, Technical	Reminds audience to make note of questions/comments –

			Coordinator, Guyana. ARM Johannes Abielie, Project Coordinator, Suriname. ARM	to be raised in plenary discussions.
15 mins.	11:30 – 11:45	A Regional observatory on mercury: Update, collection and production of scientific data on Hg - new tools at the cross border	Dr Laurence Maurice, Senior Researcher. IRD	
15 mins.	11:45 – 12:00	Responsible Gold Mining in Guyana	Rene Edwards, Technical Director. CI, Guyana	
30 mins.	12:00 – 12:30	Comments, Questions and Answers	Panel of Presenters, Facilitator, All	Facilitator moderates plenary discussion between panel presenters and audience. Summarizes key points raised or questions asked. Facilitator provides an overview and guidance for the afternoon session. Breaks for lunch
1 hr.	LUNCH			
SESSION 2				
DISCUSSION TOWARDS REGIONAL COOPERATION & COLLABORATION IN ASGM				
45 mins.	1:30- 2:15	Breakout Group Discussion – All Participants		Provide each table with (<i>placed on tables during lunch</i>):
		1. What are the priority areas for cooperation and collaboration on a Guianas level? <i>a. Brainstorm areas and prioritize in group</i> <i>b. Explore what exists, and where there are potential gaps to be addressed.</i>		<ul style="list-style-type: none"> • 3 sheets of flipchart paper • Markers (<i>at least 2 colors</i>) • Writing paper + pens (<i>for group notes</i>) • Post-it Notes
		2. What do we need for regional cooperation and collaboration? <i>a. Discuss how this can be achieved: what mechanism(s) and/or structures are needed?</i> <i>b. Focus on various levels: governance & policy, management &</i>		Facilitator guides the working groups through the process of discussing and reaching consensus on each question.

		<p><i>implementation, research & learning, networking & sharing, monitoring & reporting.</i></p>		
		<p>3. Who are the key actors for the cooperation and collaboration?</p> <p>a. <i>What are their roles? (Including Hg monitoring- Observatory, mining techniques, governance, etc.)</i></p> <p>b. <i>What capacities are needed or need to be strengthened?</i></p>		
55 mins.	2:15 - 3:10	Plenary and Feedback among Groups	Representative of Each Group	<p>A. Select a presenter from among group members</p> <p>B. Identify a Scribe – will be responsible for taking notes of the group discussions (<i>please use writing paper provided; these will be collected</i>)</p> <p>C. Consolidate <u>key points</u> from each question for presentation in plenary (<i>please use flipchart paper provided; these will be collected</i>)</p> <p>D. Each group has 3 minutes to present their key points in plenary</p>
5 mins.	3:10 – 3:15	Conclusions	Facilitator	Facilitator presents a summary of key points from group presentations.
5 mins.	3:15 – 3:20	Closing Remarks	Aiesha Williams, Country Manager, Guyana. WWF	Closing remarks by WWF Country Manager for Guyana and invitation to the mini exhibition.
10 mins	BREAK, TRANSITION TO DEMONSTRATION			
1 hr.	3:30	<p>Mini exhibition: Demonstration of equipment and techniques</p>		Participants interact with demonstrations and information sharing desks.
		Information sharing desks		
4:30	CLOSE OF DAY			

Appendix B: Stakeholder Attendance List

Type	Organisation	Invitation addressed to
Government Institutions		P.S J Mckenzie, Veetal Rajkumar, Michelle Astrood, Quinton Johnson
	Ministry of Natural Resources (MNR)	Hon. Vickram Bharrat
	Environmental Protection Agency (EPA)	Kathia David, Naiomi Persaud, Judea Crandon, Stayon Woodroffe
	Guyana Forestry Commission (GFC)	Shuba Soamandaugh, Tyrone Austin,
	Guyana Geology and Mines Commission (GGMC)	Quyanna Elliott, Lloyd Bando, John Applewhite Herds
	Ministry of Health (MOH)	Abbigail Liverpool, Jecoliah Doris, Michelle Walker
	Guyana Mining School	Tracy Lall, Ms. Nelson, Ms. Elliott, Vaughn Felix
	Ameriandian Peoples Association (APA)	Laura George
	Ministry of Foreign Affairs	Junior Alexander
Academic Institutions	University of Guyana (UG)	Calvin Bernard, Elford Liverpool, Rochelle Bynoe (Student)
International Organisation	UNDP (Guyana)	Astrid Lynch
	FFEM	Attended online
Local NGOs	Conservation International (CI), Guyana	Rene Edwards, Curtis Bernard, Ingrid Sa
	Guyana's Women's Miners Organisations (GWMO)	Urica Primus
	Policy Forum	Benita Davis
	National Toshao Council (NTC)	Derrick John

Private Sector	Guyana Gold and Diamond Miners Association (GGDMA)	Mr. Dabria Marcus, Mr. Patrick Harding, Mr. William Woolford, Mr. Vasquez Ramdas, Mr. Avalon Jagnandan
Pilot Sites- Miners and Community Rep.	Micobie/Campbelltown (Miners)	Cornel Edwards, Juliet Gouveia, Vincent Xavier, Compton Wordsworth, Samantha Edwards- John, Godfrey Edwards
Partners	ARM	Cleavon Cameron, Yves Bertrand, Patricia Garcia, Gina D'Amato, Johannes Abielie, Raulene Kendall
	IRD	Attended online
	WWF French Guiana	Attended online
WWF Guianas Representatives	Guyana Office	David Singh, Aiesha Williams, Christine Samwaroo, Christina Billy, Kemptorne Daly
SURINAME DELEGATES		Preciosa Simons, Jennifer Leeflang, Danielle van Engel, Viresh Bharosa, Cedric Nelom, Steffany Wijngaarde, Sandra Bihari, Eric Sosrojoedo, Bryan Drakenstein, Erwin Kamil, Othniel Oedit, Jurgen Plein, Wilfred Leeuwijn
Media	Stabroek, DPI, Chronicles, Kaieteur, NCN, Newsroom	

Appendix C: Workshop Presentations and Speeches List and Drop-box Link

Title of Presentation/Speeches	Presenters
Setting the Stage, WWF	Dr David Singh, Director. WWF-Guianas
Remarks from Primary Donor of “Supporting Mercury Phaseout in the Guianas”	Mr. Stephanie Bouziges-Eschmann, General Secretary. French Facility for Global Environment (FFEM)
Feature Remarks from Representative of Government of Suriname	Mrs Preciosa Simons, Permanent Secretary Mining. MNR Suriname
Improving Environmental Management in the Mining Sector of Suriname, with Emphasis on Gold Mining (EMSAGS)	Sandra Bihari, Project Coordinator, EMSAGS Project- NIMOS
Selecting mining pilot sites in Guyana and Suriname	Cleavon Cameron, Technical Coordinator, Guyana. ARM Johannes Abielie, Project Coordinator, Suriname. ARM
A Regional observatory on mercury: Update, collection and production of scientific data on Hg - new tools at the cross border	Dr Laurence Maurice, Senior Researcher. IRD
Responsible Gold Mining in Guyana	Rene Edwards, Technical Director. CI, Guyana
<p>Drop-box Link to Presentations: https://www.dropbox.com/scl/fo/etwjknh45v24siaepw05/h?dl=0&rlkey=0wov4ln7grm9h15vk8ww1bbo4</p>	

Appendix D: Guideline for Group Discussions and Plenary Feedback

Golden Opportunities: Cooperation for Reducing Mercury in Gold Mining **Session 2: Discussion Towards Regional Cooperation & Collaboration In ASGM**

Guideline for Group Discussions and Plenary Feedback

Group Presentation Guidance

- A. Select a presenter from among group members
- B. Identify a Scribe – will be responsible for taking notes of the group discussions
(please use writing paper provided; these will be collected)
- C. Consolidate key points from each question for presentation in plenary *(please use flip-chart paper provided; these will be collected)*
- D. Each group has 3 minutes to present their key points in plenary

Key Exploratory Questions

4. What are the priority areas for cooperation and collaboration on a Guianas level?
 - a. *Brainstorm areas and prioritize in group*
 - *Explore priorities in the context of what is already being done within the various organizations/institutions, and where there are potential gaps to be addressed.*
5. What do we need for regional cooperation and collaboration?
 - a. *Discuss how this can be achieved: what mechanism(s) and/or structures are needed?*
 - b. *Focus on various levels: governance & policy, management & implementation, research & learning, networking & sharing, monitoring & reporting.*
6. Who are the key actors for the cooperation and collaboration?
 - a. *What are their roles? (Including Hg monitoring- Observatory, mining techniques, governance, etc.)*
 - b. *What capacities are needed or need to be strengthened?*

Approach/Methodology for Group Work

Q1: Brainstorm methodology:

- Individually pen ideas on post-it notes

- Group like-ideas
- Create hierarchy of priorities based on discussions around guidance note *b*.
- Form consensus within group.

Q2: Create Framework

Level of Cooperation and Collaboration	Mechanism/Structures Needed
Governance & Policy	
Management & Implementation	
Research & Learning	
Networking & Sharing	
Monitoring & Reporting	

Q3: Map Key Players

Key Actors for the cooperation and collaboration	Key Roles	Capacity Needs