Second Global Forum on Artisanal and Small Scale Gold Mining
3 – 5 September 2013
Lima, Peru

Final report

1 The present report has been reproduced without formal editing
Background and overview

i. In January 2013 over 140 member governments of UNEP agreed to a convention to control global mercury pollution. The use of mercury in artisanal and small scale gold mining is a key sector covered by Minamata Convention on Mercury. Countries with ASGM in their territories will be required to reduce, and where feasible eliminate, mercury use.

ii. UNEP and its partners in the Global Mercury Partnership convened the Second Global Forum on ASGM from 3 to 5 September 2013 in Lima, Peru. The Forum was attended by almost 100 participants, representing governments, intergovernmental and non-governmental organizations.

iii. The Second Global Forum provided technical and policy information to governments and other stakeholders that assist countries in meeting their obligations related to ASGM under the Minamata Convention on Mercury. The Forum also was an opportunity for countries to share experiences and engage in a dialogue on the broader range of issues associated with ASGM.

iv. The Forum reviewed the challenges and opportunities surrounding the ASGM sector; provided an overview of the implications of the Minamata Convention on Mercury; discussed national strategic planning approaches to reducing mercury uses in the sector; provided training on inventory development; discussed technical and formalization guidance which play a important role in addressing ASGM issues; and discussed success stories, including large-scale and small-scale models of working together.

v. The participants expressed the importance of working together within their regions in an effort to have more coherency during implementation of regional strategies and actions.

vi. It was acknowledged that the meeting was beneficial for the participants as it brought together experts from different areas of ASGM facilitating exchange of experience and future coordination.
Key messages from the Global Forum

The following key messages emerged from the Forum:

a. The Minamata Convention has brought attention to the ASGM sector and its requirements are consistent with the approach of the UNEP Global Mercury Partnership. It reiterates that solutions need to be developed based and tailored to National circumstances.

b. This sector should be seen as an important economic development activity, rather than only a source of social conflicts. ASGM is more than means of subsistence, it is an entrepreneurial activity. It provides livelihood to around 10-20 million miners around the world, but causes high environmental and health risks.

c. The role of inventories remains important as developing inventories helps Government understand the significance of the sector. Developing an ASGM inventory is challenging and obtaining precise results may be unrealistic. Identifying the specific techniques used to extract gold, the type of ore mined and using multiple sources of information to triangulate results can all contribute to developing reasonably reliable inventories.

d. National strategic plans need to be developed with the engagement of main stakeholders including those along the gold supply chain. Specific strategies to remediate environmental and health liabilities should be considered according to local opportunities and threats.

e. Formalization is the key for Governments to address the problems and capitalize on the opportunities of the sector. There is increasing evidence of stratification within the sector, restating the need for further coalescence. Formalizing the sector should not be at the expense of rights of others or in ways that condone criminality. There should be a balance of rights and responsibilities. Formalization is a continuous process which will contribute to eliminate illegal and social conflicts.

f. There is a lot of progress being made in developing techniques that either eliminate the need for mercury or significantly reduce the mercury releases. The successful deployment of these techniques depends upon building confidence amongst the ASGM communities. There are clear market incentives for miners e.g. fair trade gold or rising cost of mercury etc to adopt practices enabling the transition away from mercury.

g. It is important to understand the health impacts of ASGM. Government intervention will need to include clear public health strategies to increase awareness about the dangers of mercury.

h. Incentives are a key factor to reduce mercury consumption in artisanal and small scale mining through formal credit markets, subsidies and model financing schemes. Moreover, the creation of a new market through fulfillment of green standards is another important alternative to reduce mercury uses (e.g. fair trade gold); it could also contribute to poverty alleviation and inclusive mining development. There is increased donor attention, including the financial mechanism set out in the convention, but these are not alternatives to finding local resources for increasing the sustainability of this profitable activity.
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I. Opening of the meeting

1. The Forum was opened on Tuesday, September 3rd 2013.

2. Mr. Manuel Pulgar Vidal, Minister, Ministry of Environment. Peru, welcomed the participants. He remarked the importance of the ASGM sector due to its contribution to the Peruvian economy. ASGM provides around 15% to 20% of total gold production in the country. However, economical benefits are coupled with negative environmental and social impacts mainly caused by mercury use. He highlighted the importance of establishing a new social and economical balance in Peru as one of the biggest challenges. Finally, he said Governments must develop appropriate definitions about ASGM in order to develop specific regulations to implement good practices and formalization. Mining which uses mercury should have a special regulation.

3. Ms. Jane Dennison, on behalf of the United States Department of State, welcomed the participants and emphasized the importance of the Forum regarding the potential to generate commitment in all stakeholders to reduce, and where feasible eliminate, mercury uses in ASGM. Ms. Dennison remarked that the Forum has given an opportunity to countries to strengthen international collaboration.

4. Mr. David Piper, on behalf of UNEP indicated its institutional support to government and decision makers in order to give pragmatic options for mercury uses. He highlighted that ASGM represents a big challenge for the Governments since it is a complex sector with different social, environmental and economic factors. He emphasized the importance of these Forums as they give an opportunity to present the range of challenges and opportunities in this sector.

II. The ASGM challenge

5. Mr. Ludovic Bernaudat from UNIDO gave an introduction of ASGM sector. There are estimated to be 10 million small-scale gold miners from 70 countries. These activities have had a boom in the last few years because of the increasing prices of gold around the world. ASGM is a highly variable sector with complex social dimensions which can bring positive and negative impacts to communities. According to Mercury Watch around 1,600 tons per year of mercury is used in ASGM. This is considered as the single largest emission source in the world, surpassing fossil fuel combustion. Mercury is used in ASGM because it is cheap, easily accessible and easy to use. He also stated that generally miners are not aware of the dangers of mercury.

6. Ms. Susan Egan, from Natural Resources Defense Council, presented the challenges of reducing mercury use in this sector. It is a problem which has many variables; therefore it should be tackled from different angles, such as technical, legal and financial. She also emphasized the importance of sharing information between all stakeholders, in order to reach the common objectives of the UNEP Global mercury partnership (i.e. to reduce mercury use in ASGM by 50% by 2017).

III. Outcome of intergovernmental negation process: Minamata Convention

7. Mr. David Piper from UNEP highlighted some of the important articles related to ASGM in the Minamata Convention on Mercury, such as Article 2, 7 and Annex C. Overall, the convention emphasizes the need to protect human health and environment from anthropogenic emissions and releases of mercury and mercury compounds. In countries where mercury is used in the ASGM sector, those countries must develop a comprehensive National Action Plan to reduce or where feasible eliminate mercury use in the sector; in particular, countries should take steps to eliminate the worst practices such as whole ore amalgamation and open burning of amalgam.
IV. Panel session one: Experiences in Developing National Action Plans

8. The first panel session focused on common issues that different countries have identified when developing National Action Plans. The following presentations were given. They are available on the UNEP website.

<table>
<thead>
<tr>
<th>Panelist</th>
<th>Organization/Country</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>Juan Fernando Caicedo</td>
<td>UNEP</td>
<td>Introduction to National Action Plan Development</td>
</tr>
<tr>
<td>William Batista Jinete</td>
<td>Ministry of Environment and Sustainable Development / Colombia</td>
<td>National strategic Plan to reduce mercury uses in ASGM in Colombia</td>
</tr>
<tr>
<td>Geri-Geronimo R. Sañez</td>
<td>Department of Environment and Natural Resources / The Philippines</td>
<td>National Strategic Plan for the phase-out of mercury in ASGM in the Philippines</td>
</tr>
<tr>
<td>Ernesto Ráez Luna</td>
<td>Ministry of Environment / Peru</td>
<td>ASGM and Illegal mining in Peru</td>
</tr>
</tbody>
</table>

9. The session was opened by Mr. Juan Fernando Caicedo from UNEP. He briefly talked about some of UNEPs on-going projects supporting the development of National Action Plans and summarized the different steps to develop a National Action Plan (based on UNEPs guidance document on National Strategic Planning).

10. Mr. William Batista from Ministry of Environment and Sustainable Development Colombia, explained the National Strategic Plan to reduce mercury in ASGM in Colombia. The objective of this plan is to reduce and/or eliminate mercury uses in ASGM in the next five years. The Colombian Government has implemented a complementary strategy to improve the environmental performance of ASGM through cleaner production implementations mainly through resource efficiency, minimization of mercury uses, improving processes and implementing new and cleaner technologies. Some successful cases indicated mercury’s reduction of up to 97% in the pilot ASGM projects.

11. Mr. Geri–Geronimo Sañez, from the Department of Environment and Natural Resources of The Philippines described the strategic plan for the phase-out of mercury in ASGM in The Philippines. He said that the Government of The Philippines is committed to address ASGM sector through the establishment of clear objectives to reduce mercury use. The objectives of the plan are well identified with clear and realistic goals to 2021 through the elimination of major inefficient and unsafe practices. He explained the strategies and activities implemented to formalize ASGM. The process included mainly the creation of a National Steering Committee and Interagency Technical Working Group. He commented that the government is developing next projects with UNIDO’s support in order to improve the health and environment of ASGM communities.

12. Mr. Ernesto Ráez (Ministry of Environment of Peru) explained the current situation of ASGM and illegal mining in Peru. Peruvian Government has defined mining activities according to different characteristics to establish appropriate policies for each type of ASGM. This activity is considered as the main illegal economy in Peru after illegal drug trade. Ministry of Environment is carrying out actions to prosecute illegal miners, designing strategies to develop sustainable economies and specially working on the formalization of the sector. He remarked all these actions will contribute to ensure the sustainability of vulnerable communities and ecological areas.
13. In the discussion, participants expressed the need to establish clear definitions of mining activities in each country similar to what the Government of Peru has done. It was suggested that these definitions will be different for different countries depending on the specific situation of the country.

14. Finally, Mr. Ernesto Ráez highlighted the importance of implementing controls throughout mining supply chain in order to formalize this sector and eliminate the illegal mining. It could be through establishment of green market to trade “green gold”. It is a new initiative that Peruvian Ministry is developing together with Swiss Cooperation (SECO).

V. Panel session two: Importance of inventory development

15. The session focused on the importance of developing mercury use inventories in ASGM countries which will be part of the Minamata Convention on Mercury. The session was facilitated by Mr. Anthony Persaud (Artisanal Gold Council).

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<thead>
<tr>
<th>Panelist</th>
<th>Organization/Country</th>
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<tbody>
<tr>
<td>David Piper</td>
<td>UNEP</td>
<td>National Action Planning</td>
</tr>
<tr>
<td>Anthony Persaud</td>
<td>Artisanal Gold Council</td>
<td>ASGM inventory Development</td>
</tr>
</tbody>
</table>

16. Mr. David Piper (UNEP) underlined the importance of inventories in the National Action Plans. Understanding the sector, the size and scope of the problem will contribute to prioritizing actions (such as technical interventions, development of policies, understanding economics of the sector, revealing trends, and/or identifying hotspots and sectors of industry that need highest priority attention). Generally the first inventory does not achieve good quality information. However the first inventory provides a basis of information upon which to build subsequent inventories, and it allows a rough initial ranking of priorities.

17. Mr. Anthony Persaud gave a presentation of the ASGM inventory development process and expressed the challenges surrounding it. He provided information about UNEP’s Mercury Toolkit and Global Mercury Assessments. According to recent UNEP’s evaluation, the amount of mercury emitted from the ASGM sector is over 700 tons more than estimated in 2005. These figures could reflect an increased use of mercury, or could be reflected an improvement in knowledge about mercury use, as every day there is more information about mercury use in the sector. Finally, he emphasized the importance of getting information about the sector from an economic and social context.

18. It was mentioned that the government should ensure trust between mining communities and public servants through incentives (economical and/or social). It is also necessary to build capacities and conduct “training of trainers” to ensure confidence and sustainability of actions.

19. Mr. David Piper commented that the UNEP toolkit for identification and quantification of mercury releases can be a good starting point for developing inventories.

20. Finally, Mr. Anthony Persaud was the moderator of a break out session, where participants were divided in three groups to discuss inventory development. Participants were given information from a variety of sources, regarding ASGM and gold production in a hypothetical community. Participants were asked to make an estimate of mercury use based on this information.
VI. Panel session three: Technical approaches to reducing mercury use

21. The third session focused on technical approaches to reduce mercury use in ASGM. The following table summarizes the panel and presentations regarding technical approaches.

<table>
<thead>
<tr>
<th>Panelist</th>
<th>Organization/Country</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Ludovic Bernaudat</td>
<td>UNIDO</td>
<td>Reducing/replacing Hg in ASGM operations</td>
</tr>
<tr>
<td>Luis Fernandez</td>
<td>University of Stanford</td>
<td>Studies of the effects of mercury on the environment and on health</td>
</tr>
<tr>
<td>Yves Bertran Alvarez</td>
<td>Alliance for Responsible Mining</td>
<td>Sustainable mercury reduction practices</td>
</tr>
<tr>
<td>Richard Gutierrez</td>
<td>Bantoxics / The Philliphines</td>
<td>Mercury Phaseout: The Philippine Experience</td>
</tr>
<tr>
<td>Patience Singo</td>
<td>SDC / Mongolia</td>
<td>Mercury Reduction in Mongolian ASGM</td>
</tr>
</tbody>
</table>

22. Mr. Bernaudat (UNIDO) presented technical alternatives to implement in short, medium or long terms in order to decrease or eliminate mercury use in ASGM. However, it is important to work and choose the correct technology according to each context because what works in a country does not necessarily work in other.

23. Mr. Luis Fernández (Stanford University) highlighted an innovative technology to capture mercury in ASGM which was designed by US EPA and was implemented in Brazil and Peru with good results. This new technology gives economic benefits because it captures up to 80% of mercury, which can then be recycled. It also provides health benefits by reducing significantly human exposure to mercury releases. In addition, this technology is comparatively cheap and easy to implement, operate and maintain.

24. Mr. Yves Bertran from Alliance for Responsible Mining presented sustainable mercury and reduction practices, based on lessons learned in a pilot project in Senegal. He emphasized the importance of considering the social context in developing technical alternatives. The activities must be developed with local miners because they understand and identify their own difficulties. He also told the participants about a new project in West Africa (Burkina Faso, Mali and Senegal) aimed to reduce mercury uses and give technical assistance in formalization issues.

25. Mr. Richard Gutierrez (Bantoxics, The Philliphines) talked about his experience in Philippines which focused on the improvement of health and the environment in ASGM, by working together with mining communities. The project underscored the need to “sit on the table with miners before implementing” mercury reduction activities, and the need to include legal and social context. Finally, to ensure the sustainability of the project the Government played a key role throughout the process.

26. Mr. Patience Singo gave a presentation about Mongolia’s experience in mercury reduction in ASGM describing the implemented actions, success factors, constraints and concerns. He emphasized the importance of promoting formalization to eliminate illegal ASGM.

27. Participants expressed concern about the technologies that require intensive cyanidation because it contributes negatively to health. The creation of new markets in clean technologies is a key factor to contribute economic growth with environmental benefits.

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2 Video: [http://www.youtube.com/watch?v=rg4utXDuf8](http://www.youtube.com/watch?v=rg4utXDuf8)
VII. Panel session four: Legal and social issues

28. This fourth session focused on legal and regulatory issues.

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<thead>
<tr>
<th>Panelist</th>
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<th>Topic</th>
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<tbody>
<tr>
<td>Lina Villa Córdoba</td>
<td>Alliance for Responsible Mining</td>
<td>Key lessons learned in formalization approaches based on experiences in Latin America, Africa and Asia.</td>
</tr>
<tr>
<td>Tamrat Mojo Beyene</td>
<td>Ministry of Mines / Ethiopia</td>
<td>ASGM formalization Case study of Ethiopia</td>
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<tr>
<td>Victor Vargas Vargas</td>
<td>Ministry of Energy and Mines / Peru</td>
<td>Mining in Peru</td>
</tr>
<tr>
<td>Yuyun Ismawati</td>
<td>BaliFokus / Indonesia</td>
<td>Indigenous People and ASGM</td>
</tr>
<tr>
<td>Olinda Orozco Zevallos</td>
<td>Red social / Peru</td>
<td>ASGM in Peru: Challenges and proposal</td>
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29. Ms. Lina Villa Cordoba (Alliance for Responsible Mining) presented the lessons learned in formalization approaches in Latin America, Africa and Asia. Ms. Villa underlined the importance of creating a conducive climate for formalization. This will enable the Government to combat crime associated with ASGM. In this sense, it is important to involve different stakeholders to accelerate formalization process. It is important to realize that formalization is not only the Government’s responsibility, but a responsibility for entrepreneurs. For example, private initiatives regarding "green gold" that permits miners to sell gold to better clients, could be scaled up worldwide. She concluded by saying ASGM should be seen as an opportunity, and not as a source of social problems.

30. Mr. Tamrat Mojo Beyen (Ministry of Mines Ethiopia) presented a case study of Ethiopia in ASGM formalization. He emphasized the government’s strategy through legal, administrative, and social services as well as financial support in order to improve the supply chain of gold. One key factor of this successful model is based on the subsidies offered by the Government to ASGM e.g. The Government pays a higher price for gold than in the international market. An important lesson learned from the experience in Ethiopia is that formalization can be done successfully.

31. Mr. Victor Vargas (Ministry of Energy and Mines Peru) focused on the Government’s efforts in formalization of ASGM in Peru. The process is slow as there are around 70,000 miners who are involved in the process. He added that there is a deadline to accomplish formalization for all miners until April 2014.

32. Ms Yuyun Ismawati (BaliFokus / Indonesia) presented a case study of the participation of indigenous people in ASGM. She underlined the importance of empowerment of indigenous communities to ensure cultural values and indigenous rights are secured.

33. Ms. Olinda Orozco (Red Social, Peru) commented on the current formalization process in Peru. She mentioned that this process should be accompanied by incentives to promote formalization of miners grouped in associations coming from common territories. It was underlined that ASGM is an entrepreneurial activity, rather than basic social subsistence activity. Hence projects should consider ASGM as an entrepreneurial business sector.
VIII. Panel session five: Health issues related to ASGM

34. The fifth session covered issues related to health, labour, gender and small scale gold mining interactions.

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<tr>
<th>Panelist</th>
<th>Organization/Country</th>
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<tbody>
<tr>
<td>Ana Boischio</td>
<td>Pan American Health Organization (PAHO)</td>
<td>Health conditions and services in ASGM settlements and public health strategy.</td>
</tr>
<tr>
<td>Zuleica Castilhos</td>
<td>CETEM / Brazil</td>
<td>Case study of Brazil</td>
</tr>
<tr>
<td>Myrianne Richard</td>
<td>Artisanal Gold Council</td>
<td>Practical approaches to public health in ASGM communities</td>
</tr>
<tr>
<td>Ludovic Bernaudat</td>
<td>UNIDO</td>
<td>Health issues in ASGM, UNIDO’s journey and position</td>
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</table>

35. Ms. Ana Boischio (PAHO) described mercury, methyl mercury and mercury bioaccumulation effects on the environment and health. There is a direct negative impact on miners’ health due to contact and exposure to dust and accidents as part of their work routine. Finally, she presented health aspects of the article 16 considered in Minamata Convention and some pilot projects developed in Mongolia and Indonesia to assess impacts of ASGM activities in health.

36. Ms. Zuleica Castilhos from CETEM Brazil, provided information about human health risk assessment by mercury in Sao Chico-Brazil and the results of CETEM research. According to CETEM research, Sao Chico’s miners showed high mercury levels in hair, urine and blood in comparison with non-miners. Besides, miners showed high frequency of tremors and stand problems. Miners are the most susceptible stakeholder to negative effects of mercury. For that reason, she highlighted the importance of collecting epidemiological information on mercury-based health impacts in ASGM in order to design proper health care solutions.

37. Ms. Myrianne Richard from Artisanal Gold Council mentioned that it is critical to understand the mining context to elaborate a correct diagnosis and ensure sustainable interventions. Research activities should be complemented with practical sustainable development projects. According to Artisanal Gold Council successful experiences are those that implement changes in the entire ASGM chain value. There is a need to align Minamata Convention articles with the sector’s own priorities and expectations. The ASGM sector needs a proper platform to share current ASGM information.

38. Mr. Bernaudat presented UNIDO’s projects to contribute mercury reduction in the sector such as ASGM projects in Tanzania (1994), the Philippines (1998) and Ghana (2002), and the production of guidelines for health and environmental assessment. UNIDO shares the vision of reducing or eliminating the use of mercury, and there is renewed the institutional commitment of UNIDO on this issue.

39. In response to discussion of health concerns, participants suggested that health monitoring and research should continue to design preventive actions and treatment options. Since indigenous communities are exposed to mercury contamination, it is necessary to involve them in the national and local action plans.
IX. Panel session six: Financing the transition away from mercury

40. The session focused on financing a transition away from mercury.

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<tr>
<th>Panelist</th>
<th>Organization/Country</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Anil Sookdeo</td>
<td>Global Environment Facility</td>
<td>How to Access the GEF Trust Fund</td>
</tr>
<tr>
<td>Jane Dennison</td>
<td>United States Department of State</td>
<td>Criteria for selecting partners Bilateral funding of ASGM projects</td>
</tr>
<tr>
<td>Ludovic Bernaudat</td>
<td>UNIDO</td>
<td>How to finance mercury-reducing projects in ASGM</td>
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</tbody>
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41. Mr. Anil Sookdeo (Global Environment Facility) provided information of GEF Trust Fund. He said that sound management of Chemicals is an important issue for GEF and especially now that the Minamata Convention has been signed, projects related to mercury would be given priority. An important information for countries is that GEF funds can be used for the development of National Action Plans and to support the formalization process of ASGM.

42. Jane Dennison (United States Department of State) explained the key issues for successful fund raising. She highlighted a donor is likely to be much more receptive to a project idea if the government has considered the issue deeply and has a strategy for addressing the issue (in this case reducing mercury use in ASGM). A carefully thought out request for assistance can be very persuasive. However, each donor has preferred kinds of projects, depending on size, capacity, and specialization.

43. Mr. Bernaudat described UNIDO’s mechanisms to support projects worldwide. He highlighted that donors are not interested in duplicating projects hence, sharing information is important through for example ASGM partnership platform.

44. In response to questions, Mr. Sookdeo indicated each project proposal for GEF is treated separately; hence, the specific information and requirements depends on the type of projects. To get more information, he recommended visiting the following website: www.thegef.org

X. Panel session seven: Creation of new platforms for coordination, cooperation and reporting

45. The seventh session covered issues related to new platforms for coordination, cooperation and reporting.

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<thead>
<tr>
<th>Panelist</th>
<th>Organization/Country</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Antonio Restrepo</td>
<td>Amazon Cooperation Treaty Organization – ACTO</td>
<td>Mercury Surveillance themes in the Amazon Region</td>
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<tr>
<td>Francisco Sánchez</td>
<td></td>
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</tr>
<tr>
<td>Ernesto Ráez Luna</td>
<td>Ministry of Environment / Peru</td>
<td>Collaborative platforms control for illegal mining to ASGM sustainability.</td>
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</table>
Salvador Mondlane  | Communities and Small Scale Mining (CASM) Africa regional representative | Platforms for coordination cooperation and reporting

46. Mr. Antonio Restrepo introduced the Amazon Cooperation Treaty Organization (ACTO) activities since 1978 in the Amazon Region. Mr. Francisco Sanchez (ACTO) gave additional information of ACTO working on mercury assessments. He explained different actions in the Amazon Region to achieve an integrated management system. These actions include activities to create a group on cooperation not only in technical issues, but also in social, health and environmental topics in ASGM.

47. Mr. Ernesto Ráez (MINAM) provided a summary of platforms to control illegal mining and to ensure the sustainability of ASGM in Peru. He indicated Peru is involved in sub-regional and binational platforms to control mining in the Amazon Region. ASGM is a priority in the country. Therefore, the Government of Peru has designed a national agreement against illegal mining aiming to develop responsible mining and develop actions for mercury’s remediation.

48. Mr. Salvador Mondlane (Communities and Small Scale Minin (CASM) Africa representative presented the platforms for coordination cooperation worldwide. He showed different examples of platforms in ASGM sector, sharing lessons learned. He indicated the importance of considering the involvement of government in the design of platforms because they are a key actor to ensure the sustainability of the platform.

XI. Morning Regional Consultation

49. Participants were requested to join one of three regional working groups: Africa, Asia and Latin America. Government participants answered a series of questions in order to facilitate regional dialogue. Each participating Government discussed their sectoral, environmental, legal and social national situation. Moreover, there were other questions related to Minamata Convention (obligations and ideas to achieve objectives, etc.). After the regional working groups, the participants provided their summaries and conclusions to UNEP (see annex 3).

XII. Break out group on cooperation, technical assistance and info exchange

50. The participants were divided into two break-out sessions (Africa and Asia, and Latin America). During each session participants discussed how to facilitate follow-up and develop new platforms to work together and exchange experiences. The summary of discussions are available in annex 2.

51. Mr. David Piper highlighted the importance of sharing experiences and information through regional platforms. He indicated that UNEP has started with some initiatives to establish a platform which provides information not only to Global Mercury Partnership, but also people interested and/or working in the ASGM sector.

XIII. Concluding remarks

52. Mr. David Piper thanked participants for their active involvement in the Forum and he highlighted key message from the forum to consider for the future.
53. Finally, Mr. Mariano Castro, Deputy Minister of Environment of Peru, declared closed the Second Forum of ASGM at 17.00 hrs on Thursday, 5th September 2013. Additionally he expressed his gratitude to UNEP for organizing this important Forum.

Annexes

Annex 1

Final Agenda

Second Global Forum on Artisanal and Small Scale Gold Mining
Lima, Peru
3 – 5 September 2013
Meeting Location: Hotel Meliá
Av. Salaverry 2599, Lima – Peru

DAY 1

8:15 – 9:00 Registration
9:00 – 9:15 Welcomed remarks
9:15 – 9:45 Participant introductions
9:45 – 10:15 THE ASGM CHALLENGE GLOBALLY
Moderators: Natural Resources Defense Council (NRDC) and United Nations Industrial Development Organization (UNIDO)
10:15 – 11:15 OUTCOME OF INTERGOVERNMENTAL NEGOTIATION PROCESS: MINAMATA CONVENTION
Moderator: UNEP
11:15 – 11:30 Break
11:30 – 13:00 SESSION 1: EXPERIENCES IN DEVELOPING NATIONAL ACTION PLANS
Moderator: Natural Resources Defense Council
Panelists:
- Representatives from Asia and the Pacific (Government of The Philippines)
- Representatives of the Latin America and Caribbean region (Government of Colombia and the Government of Peru)
13:00 – 14:00 Lunch
14:00 – 16:30 SESSION 2: IMPORTANCE OF INVENTORY DEVELOPMENT
Moderator: Artisanal Gold Council
Panelists:
- UNEP
- Artisanal Gold Council
14:30 – 17:30  SESSION 5: HEALTH ISSUES RELATED TO ASGM  
**Moderator:** Artisanal Gold Council  
Panelist:  
- CETEM, Brazil  
- Pan American Health Organization (PAHO)  
- UNIDO  
- Artisanal Gold Council  

Panel session and discussion
9:45 – 10:00  OPENING DAY 3  
Summarize previous day and map out current day

10:00 – 10:30  SESSION 6: FINANCING THE TRANSITION AWAY FROM MERCURY  
Moderator: UNEP  
Presenters:  
- Global Environment Facility  
- UNIDO  
- United States Department of State  

Discussion and questions (including summarized results of answers to morning regional consultations relevant to this panel session)

10:30 – 11:45  Break

11:45 – 13:00  SESSION 7: CREATION OF NEW PLATFORMS FOR COORDINATION COOPERATION AND REPORTING  
Moderator: Sustainable Artisanal Mining (SAM) Project  
Panelists:  
- Amazon Cooperation Treaty Organization (ACTO)  
- Government of Peru  
- World Bank communalities and small scale mining program (CASM)

13:00 – 14:00  Lunch

14:00 – 15:30  BREAK OUT GROUP ON COOPERATION, TECHNICAL ASSISTANCE AND INFO EXCHANGE  
Discussion and questions (Why do we need new platforms for coordination and cooperation?)

15:30 – 16:30  PLENARY  
Report back from break – out groups and ideas for future information exchange / cooperation

16:30 – 17:00  SUMMARY FINAL DISCUSSION
Annex 2  Regional Sessions

AFRICA

Sectoral profile questions:

1. How many people are engaged in ASGM in your country?
   - Ethiopia: 300,000 – 350,000
   - Ghana: 1’000,000
   - Senegal: 20,000 – 50,000
   - Sudan: 1’000,000
   - Tanzania: More than 800,000
   - Rough numbers by ARM: Mali 400,000, Senegal 70,000, Burkina Faso 400,000
   - DRC: 600,000

2. Where does mining take place within the country?
   - Ethiopia: Throughout the country
   - Ghana: Concentrated geographically
   - Senegal: South East (región Jéodougou and Tambacounda)
   - Sudan: 5 states out of 17 states
   - Tanzania: Concentrated geographically (12 regiones)
   - Rough numbers by ARM: Mali: disseminated practically through the whole country, Senegal: Specific region, Burkina Faso: Specific region, DRC: disseminated practically through the whole country

3. Who does the mining?
   - Ethiopia: Family landowners, migrant workers, immigrant workers, workers hired by landowners, women and children are involved in the work.
   - Ghana: Family landowners, migrant workers, immigrant workers, workers hired by landowners, women and children are involved in the work.
   - Senegal: Migrant workers, immigrant workers, women and children are involved in the work.
   - Sudan: migrant workers.
   - Tanzania: Migrant workers, immigrant workers, workers hired by landowners, women and children are involved in the work.
   - Rough numbers by ARM: Western Africa: family landowners, migrant workers, immigrant workers, workers hired by landowners, women and children are involved in the work and DRC family landowners, immigrant workers, workers hired by landowners, women and children are involved in the work.

4. How many women and children are involved in the sector?
   - Ethiopia: 25% of the total ASGM communities are women
   - Ghana: Up to 50% women
   - Sudan: None women – none children
   - Tanzania: 1,000 women not know children
   - Western Africa: 20 – 30% women and 10% children
   - DRC: 15% women and 15% children

5. How much gold do these miners produce each year?
   - Ethiopia: 7 – 8 MT
   - Ghana: 31.31 MT
6. What price do miners get for gold?
   - Ethiopia: 1,400-1,500 USD per ounce, it fluctuate based on the daily world gold price
   - Ghana: 1,250 USD per ounce, averagely 1-2% below spot price
   - Senegal: 1,364 USD per ounce, 25% below spot price
   - Sudan: 1,300 USD per ounce
   - Tanzania: 24-42 USD per gram, Not known % below spot price
   - Western Africa: 65-85% of the spot price
   - DRC: USD 992.2 per ounce, 29.16% below spot price.

7. How do the miners get access to mercury?
   - Ethiopia: Do not use mercury.
   - Ghana: Gold shop, mine owner and individual vendors and/or importer.
   - Senegal: Bordering countries (Burkina Faso).
   - Sudan: Gold Shop and traders.
   - Tanzania: Mine owners, not know illegal importation through porous border
   - Western Africa: Gold shop, mine owner, bold buyer.
   - DRC: Intermediary persons.

8. How much do the miners pay for mercury?
   - Ghana: 2,020 USD to 2,286 liter or 127.43 - 145.55 per kg
   - Sudan: Not know
   - Tanzania: Not know

9. Are miners sensitive to price of mercury? (Would they use less if it cost more?)
   - Ghana: No
   - Senegal: No
   - Sudan: No
   - Tanzania: No
   - Western Africa: Yes
   - DRC: Yes

10. Do you have an estimate of how much mercury miners use to produce gold
    - Ghana: Yes. 0.57 gr. Hg/1gr. gold produced 3
    - Senegal: No
    - Tanzania: No
    - Western Africa: Yes. 1.3 – 1.4 gr. Hg/1 gr. Gold produced
      - They work exclusively on concentrate ore. The loose amalgams are usually 60% Hg – 40% Au. To that it was added 10 – 20% loss in the ore.
    - DRC: No

10. What are the common technologies and practices used by the miners?

<table>
<thead>
<tr>
<th>Country</th>
<th>crushing and grinding</th>
<th>crushing and grinding, mercury-free, chemical-free</th>
<th>chemical leaching</th>
<th>chemical leaching</th>
</tr>
</thead>
</table>

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3 This estimation was done by University of Mines and Technology in Ghana
grinding with mercury (e.g. whole ore amalgamation) | with mercury (e.g. whole ore amalgamation) | followed by concentration, with mercury added to concentrates | processes such as gravity concentration (using sluices, centrifuge, shaking table etc) | process (such as cyanide leaching) on ore | process (such as cyanide leaching) on tailings
---|---|---|---|---|---
Ethiopia | | | X | | X
Ghana | X | X | X | X | X
Senegal | X | X | X | X | X
Sudan | X | | | | |
Tanzania | X | | | | |
Western Africa | X | | | | X
DRC | X | X | | | |

11. If mercury is used, how is amalgamation performed? How is the amalgam burnt?
- Ghana: The concentrate from panning is mixed with the mercury to form an amalgam and this is squeezed through a cloth to remove excess mercury, the amalgam is then heated in an open fireplace, open hearth or in a retort to leave the spongy gold behind. This is then sold to gold dealers.
- Sudan: Pan open burning.
- Tanzania: Miners remove rocks from pits (digging). They crush the ore followed by concentration of gold by pouring water over the powder and pass it through sluice box (sluicing). Mercury is used for the separation of fine gold particles from dirt and other minerals (amalgamation). The amalgam is then burned to evaporate the mercury and recover the gold. This operation is mostly carried out in closed areas such as residential rooms and sometimes in the field in open air.
- Ghana: Sometimes
- Senegal: Sometimes
- Sudan: Sometimes
- Tanzania: Sometimes
- Western Africa: Sometimes. Rarely
- DRC: Sometimes. Commonly.

12. What is the level of local knowledge about alternatives to mercury?
- Ghana: Low.
- Senegal: Low
- Sudan: Low
- Tanzania: Low
- Western Africa: Low

13. Are programs or trainings available regarding alternatives available?
- Ghana: Yes
• Sudan: Yes
• Senegal: No
• Tanzania: Yes
• Western Africa: Yes
• DRC: Yes

14. If so, what are the adoption rates for these alternatives?
• Ghana: Low
• Sudan: High
• Tanzania: Low
• Western Africa: High
• DRC: Low

15. How well do miners understand the dangers of mercury?
• Ghana: Know but don’t care
• Senegal: Know but don’t care
• Sudan: Don’t know
• Tanzania: Know but don’t care
• Western Africa: Don’t know.
• DRC: Know but don’t care / Know but have no alternative

16. Who buys the gold from the miners?
• Ethiopia: Licensed and legal gold traders buy gold at the mining site and sell to the national bank of Ethiopia
• Ghana: Owners, gold shops, certified gold buyers, and business men. Both in the field and at gold shops
• Sudan: from gold buyers in the field
• Tanzania: Brokers and dealers buy gold from miners who have a mining license. Small brokers buy gold directly at the mines or from miners in gold shops.
• Western Africa: Mainly gold buyers onsite or in villages
• DRC: Les négociants, les Mini-marchés and les comptoirs agréés

17. Do the gold buyers purify the gold?
• Ethiopia: Gold traders/buyers only melt dust gold and make gold bars.
• Ghana: Yes. They use any mercury capture methods when purifying the gold: Yes
• Sudan: No
• DRC: No.

Environmental questions:

1. What are the kinds of impacts you know about or have observed?

<table>
<thead>
<tr>
<th>Country</th>
<th>Deforestation</th>
<th>Mercury contamination</th>
<th>Cyanide contamination</th>
<th>Sedimentation or other impact on water bodies</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
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<tr>
<td>Ghana</td>
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<tr>
<td>Senegal</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>VIH proliferation, ca</td>
</tr>
</tbody>
</table>
2. Are there any special studies or data collected on environmental contamination or health impacts from ASGM performed in your country?

- Ghana: Effect of mercury on people of Dumasi, a “galamsey” (illegal ASGM) village- A study sponsored by UNIDO- Results have been included.
- Senegal: No
- Sudan: No
- Tanzania.
  - From 2002 to 2007, the Global Mercury Project (GMP) launched the biggest initiative in Tanzania funded by UNIDO, GEF and UNDP. Implementation of the UNIDO Global Mercury Project took place in areas adjacent to Lake Victoria in Rwamagaza area Geita District. The project aimed to reduce mercury pollution, introduce cleaner gold extraction methods by introduction of retorts to the artisanal and small scale gold miners in order to recover mercury from gold mercury amalgam. The project also monitored mercury pollution and promoted awareness to miners on hazardousness of mercury.
  - The National Mercury Inventory for the United Republic of Tanzania conducted by the Vice President’s Office in January 2012.
- Western Africa: No
- DRC: No.

Legal questions:

1. What is the legal/regulatory status of small scale mining?

- Ethiopia: Legal
- Ghana: Legal
- Senegal: Legal / illegal
- Sudan: Legal
- Tanzania: Legal
- Western Africa: Legal / extra-legal
- DRC: illegal

2. What is the legal status of mercury use in your country?

- Ethiopia: Not legal
- Ghana: Legal

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<tbody>
<tr>
<td>Sudan</td>
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<td>Noting observed</td>
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<tr>
<td>Tanzania</td>
<td>x</td>
<td>X</td>
<td>X</td>
<td>Air pollution and health impacts. Difficult to estimate numbers of acres or hectares</td>
</tr>
<tr>
<td>Western Africa</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DRC</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
• Senegal: Not legal
• Sudan: not legal
• Tanzania: According to the National Environmental Management Act No 20 of 2004 (EMA) and the Mining (Environmental Protection for Small Scale Mining) Regulations both address the use of mercury in licensed small scale Mining. The EMA stipulates that any one generating hazardous waste will be responsible for its disposal and liable for any damage to human health, living beings and the environment.
• Under the Mining Regulations requires any Primary Mining License (PML) holder to conduct an environmental and social investigation and submit Environmental Management Plan to zonal mines office prior starting mining work. The Plan must describe mining and processing methods, emissions and discharge, waste disposal strategy and how he/she will use and store chemicals. The Regulations also provides for disposal of tailings in a manner approved by inspector. The regulations emphasize: the use of retort when burning mercury gold amalgam; provision of employees with protective gears and construction of washing or settling ponds areas where amalgamation may take place at least 50 metres from water sources.
• Western Africa: Senegal (legal), Burkina Faso (not legal) and Mali (not legal)
• DRC: not legal

3. How are miners typically organized?

<table>
<thead>
<tr>
<th>Country</th>
<th>individuals or family groups</th>
<th>owners with paid labor or shared profit model</th>
<th>cooperatives</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td></td>
<td></td>
<td>X</td>
<td>micro and small enterprise</td>
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<tr>
<td>Ghana</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Senegal</td>
<td>X</td>
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<td>Sudan</td>
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<td>Tanzania</td>
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<tr>
<td>Western Africa</td>
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<td>DRC</td>
<td>X</td>
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<td>X</td>
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</tr>
</tbody>
</table>

3. How do miners typically access capital?
• Ghana: From gold buyers, banks and financial institutions, sponsors
• Senegal: Self-funding.
• Sudan: No understood.
• Tanzania: Some access capital through individual efforts including bank loan
• Western Africa: Private loans at high rate
• DRC: Very difficult to access

4. Besides the artisanal and small scale miners, who are the key stakeholders at national regional and local levels, including government and community-based organizations active in mining communities?
• Ethiopia: Civil society organizations: AID organization, Micro finance institutions, Health Ministry, Education Ministry, Industry Ministry, Ministry of Mines, Regional mining agencies, Cooperative and Micro and small scale enterprise agencies, National bank of
Ethiopia, Geological survey of Ethiopia, Ministry of women, youth and children, Customs and revenue authority, Regional and Local Government, Provincial Government.

- Senegal: Organizations Non-governmental, Organizations de la social society, Ministry of Health, Ministry of mines and local government.
- Sudan: Ministry of Health and Ministry of Mines.
- DRC: Ministry of Mines

Questions related to Minamata Convention obligations:

1. Has your countries developed a national inventory of mercury use in ASGM:
   - Mali, Senegal and Burkina Faso: Yes
   - Tanzania: Yes
   - Sudan: No
   - Ghana: No
   - DRC: No

2. Was the "UNEP toolkit to estimate the releases of mercury to air, land and water from various sources?"
   - Mali, Senegal and Burkina Faso: Yes
   - Tanzania: Yes

3. What do you see as the gaps in the inventory?
   - Tanzania: Other coal uses, use of pipelines gas (Consumer quality), biomass fired power and heat production, pulp and paper production, incineration of Municipal/general waste incineration of hazardous waste, incineration of medical waste and open fire waste burning (on landfills and informal. They are very large uncertainties in the approach, especially in the evaluation of the number of miners and their production (on which the inventory is based). It is recommend much more specific evaluations on pilot site for each typical setting in order to reduce uncertainty (ARM).

4. What activities has your Government initiate to prepare for the Minamata Convention? Specifically, what activities address obligation under ASGM Article 7.
   - Ghana: None
   - Sudan: NIP underdevelopment
   - Tanzania: Revising and launching the National Strategic Plan on Mercury Management.

Ideas for assistance

<table>
<thead>
<tr>
<th>What specific kinds of assistance would be most helpful to your country in implementing obligations under the Convention?</th>
<th>Need NOW</th>
<th>Need in future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical assistance</td>
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<tr>
<td>Training on doing mercury inventories</td>
<td>Ghana</td>
<td>Senegal</td>
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<td>--------------------------------------------</td>
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</tr>
<tr>
<td>Training on alternative mining techniques to reduce or eliminate mercury use and release</td>
<td>Ghana</td>
<td>Ethiopia</td>
</tr>
<tr>
<td>Training on mercury capture during purification</td>
<td>Ghana</td>
<td>Sudan</td>
</tr>
<tr>
<td>On-line training of miners and processors</td>
<td>Senegal</td>
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</tbody>
</table>

**Policy development**

<table>
<thead>
<tr>
<th>Setting up formalization system</th>
<th>Ghana</th>
<th>Senegal</th>
<th>Tanzania</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Land tenure/property rights/cadastre system</td>
<td>Tanzania</td>
<td></td>
<td>Senegal</td>
<td></td>
</tr>
<tr>
<td>Facilitation of National Action Plans</td>
<td>Ghana</td>
<td>Senegal</td>
<td>Tanzania</td>
<td></td>
</tr>
</tbody>
</table>

**Marketing approach**

<table>
<thead>
<tr>
<th>Developing supply chains to maximize mercury-free</th>
<th>Ghana</th>
<th>Senegal</th>
<th>Sudan</th>
<th>Tanzania</th>
<th>Senegal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressing health impact issues</td>
<td>Ghana</td>
<td>Senegal</td>
<td>Sudan</td>
<td>Tanzania</td>
<td></td>
</tr>
<tr>
<td>Training for environmentally-sound management of mercury</td>
<td>Ghana</td>
<td>Senegal</td>
<td>Sudan</td>
<td>Tanzania</td>
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</table>

**Mercury storage**

<table>
<thead>
<tr>
<th>National Action Plan on storage- facilitation</th>
<th>Ghana</th>
<th>Senegal</th>
<th>Sudan</th>
<th>Tanzania</th>
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</thead>
<tbody>
<tr>
<td>Training, technical criteria of facilities</td>
<td>Ghana</td>
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</tbody>
</table>
ASIA

**Sectoral profile questions:**

1. **How many people are engaged in ASGM in your country?**
   - Indonesia (NGO): Approximately 1 million people directly and 5 million people indirectly
   - Philippines 300,000 (Government), (NGO): 350,000
   - Cambodia 5,000-6,000
   - Vietnam 3000-4000 (Government)
   - Mongolia (Government) 30,000, (NGO) more than 30,000

2. **Where does mining take place within the country?**
   - Indonesia (NGO): In 2010 more than 800 hotspots spread all over the country and identified in 23 provinces out of 33 provinces of Indonesia, including in small islands.
   - Philippines 30 provinces (Government), (NGO): in at least 30 provinces
   - Cambodia: concentrated to the northern part of Country where nearby border, forest and mountain areas.
   - Vietnam: North East, North West, North Central, South Central and Highlands
   - Mongolia (Government)Mining operations take place in rural areas of 20 provinces of Mongolia, (NGO): Almost throughout rural areas of Mongolia

3. **Who does the mining?**
   - Indonesia: Family landowners, Migrant workers, immigrant workers, workers hired by landowners, women, children involved in the work, indigenous peoples
   - Philippines: Family landowners, Migrant workers, immigrant workers, workers hired by landowners, women, children involved in the work
   - Cambodia: migrant workers, immigrant workers, women, children
   - Vietnam: No information
   - Mongolia: Migrant workers, women, rural people, herders, ex-herders, individuals organized into partnership, herders, ex-herders

4. **How many women and children are involved in the sector?**
   - Indonesia (NGO): No exact data yet
   - Philippines 18000 Women and children (Government)
   - Cambodia
   - Vietnam 400 Women, O children (children might be involved in illegal mining) (Government)
   - Mongolia (Government) 9.000 women, (NGO): 1. 000 womens, no information for childrens.

5. **How much gold do these miners produce each year?**
   - Indonesia (NGO): about 65-130 MT (metric tones) per year
   - Philippines 30 MT (Government), (NGO): 20 MT
   - Cambodia
6. What price do miners get for gold?
- Indonesia (NGO): 20-60% below spot price – depending on the quality of gold
- Philippines 1800/gram (Government)
- Cambodia
- Vietnam 500-900 USD/ounce (Government)
- Mongolia (Government) 1028$/ounce, (NGO): 1030$/ounce, 27% below spot price.

7. How do the miners get access to mercury?
- Indonesia: mine owners, gold mining auxiliaries shops and individual
- Philippines: Gold shop, dentist, mine owner
- Cambodia: gold shops, mine owners
- Vietnam: From authorized shops trading in chemicals
- Mongolia: middle man, goldsmith, Boroo river where LSM used to operate, individuals, middlemen

8. How much do the miners pay for mercury?
- Indonesia (NGO): between USD 50-100 per kilo – depending on the mercury market price
- Philippines: (Government) 4-10 USD/gram, (NGO): US150 or more
- Cambodia
- Vietnam 160 USD/liter (Government)
- Mongolia (Government) 500$/kilo, (NGO): 350-400 / liter of per kilo

9. Are miners sensitive to price of mercury? (Would they use less if it cost more?)
- Yes  Vn, Ph, Ph(NGO), Ind(NGO)________  No __Mon, Mon(NGO)____
  - Indonesia: Yes
  - Philippines: No
  - Cambodia:
  - Vietnam: Yes
  - Mongolia: No

10. Do you have an estimate of how much mercury miners use to produce gold
- Indonesia (NGO): about 500 to 1500 grams mercury / 1 gram gold produced
- Philippines 10-25 (with WOA), 1-3 (with amalgamation after grinding), (NGO): Whole Ore: 1:10-25Panning 1:1-3
- Cambodia
- Vietnam 15g HG: 1g Gold (Government)
- Mongolia (Government) 50g mercury / g of gold, (NGO): 2g mercury / g of gold

   How did you make this estimate?
   - Ind(NGO): observations and interview with miners/owners of ballmills plants.
   - Mon(NGO): got information from miners.
   - Ph(NGO): Interviews and Field research
11. What are the common technologies and practices used by the miners?

<table>
<thead>
<tr>
<th>Country</th>
<th>crushing and grinding with mercury (e.g. whole ore amalgamation)</th>
<th>crushing and grinding with mercury (e.g. whole ore amalgamation), followed by concentration, with mercury added to concentrates</th>
<th>mercury-free, chemical-free processes such as gravity concentration (using sluices, centrifuge, shaking table etc)</th>
<th>chemical leaching process (such as cyanide leaching) on ore</th>
<th>chemical leaching process (such as cyanide leaching) on tailings</th>
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</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>X</td>
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<td>Indonesia</td>
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<td>Cambodia</td>
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<td>Vietnam</td>
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<td>Mongolia</td>
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</tbody>
</table>

12. If mercury is used, how is amalgamation performed? How is the amalgam burnt?

- Indonesia: The amalgam burnt on the sites near the sluices box, at the ballmills plant (which located near the rice fields and agriculture lots), at the gold shops which usually near food stalls and where children are around, at the backside of the houses, etc.
- Philippines: various means
- Cambodia
- Vietnam
- Mongolia: processing plant owners sell tailings to mining companies for processing Amalgam burn in stove.

13. Are retorts used when amalgam is burned?

- Indonesia: rarely and never in most hotspots
- Philippines: rarely
- Cambodia: Never
- Vietnam
- Mongolia (Government) usually, (NGO): rarely

14. How do miners purify the gold (if they do)?

- Indonesia: open direct burning.
- Philippines: blow torching (Government) Direct Smelting and/or acid(NGO)
- Cambodia
- Vietnam Export it (Government)
- Mongolia (Government) Miners use diluted nitric acid, (NGO): Heat concentrates and smelt when use mercury
15. What is the level of local knowledge about alternatives to mercury?

- Indonesia:
- Philippines: Low
- Cambodia: Low
- Vietnam: Low
- Mongolia: High

16. Are programs or trainings available regarding alternatives?

- Yes for all countries

17. If so, what are the adoption rates for these alternatives?

- Indonesia: Low
- Philippines: Low
- Cambodia:
- Vietnam:
- Mongolia: Low

18. How well do miners understand the dangers of mercury?

- Indonesia: Know but do not care
- Philippines: Know but do not care
- Cambodia: Know but have no alternative
- Vietnam: Know but do not care
- Mongolia: Know but have no alternative

19. Who buys the gold from the miners?

- Indonesia: Goldshops, gold financiers, mercury traders, and individual brokers
- Philippines: At gold shops/field, bought by gold shops and jewellers
- Cambodia: The Mine owners, gold shop and in the field
- Vietnam: Exported abroad
- Mongolia: Middle men in the field, Mongol bank

20. Do the gold buyers purify the gold?

- Indonesia: Yes
- Philippines: Yes
- Cambodia: Yes
- Vietnam: Yes
- Mongolia: No
Legal/social questions

1. What is the legal /regulatory status of small scale mining?
   - Indonesia: illegal
   - Philippines: legal
   - Cambodia: illegal
   - Vietnam: legal
   - Mongolia: legal

2. What is the legal status of mercury use?
   - Indonesia: legal
   - Philippines: illegal
   - Cambodia: illegal
   - Vietnam: illegal
   - Mongolia: illegal

3. How are miners typically organized?

<table>
<thead>
<tr>
<th>Country</th>
<th>individuals or family groups</th>
<th>owners with paid labor or shared profit model</th>
<th>cooperatives</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>informal group working together under one leader/financier.</td>
</tr>
<tr>
<td>Cambodia</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mongolia</td>
<td>X</td>
<td>X</td>
<td></td>
<td>Partnerships</td>
</tr>
</tbody>
</table>

3. How do miners typically access capital?
   - Indonesia: From the leaders/bosses of the group and from the financiers
   - Philippines: gold dealers/buyers
   - Cambodia: borrow the money and pay back by gold latter for surviving
   - Vietnam:
   - Mongolia: through mining operations, miners acces capital by doing mining for the Mon

4. Besides the artisanal and small scale miners, who are the key stakeholders at national regional and local levels, including government and community-based organizations active in mining communities?
• Indonesia: BaliFokus. Indonesia Toxics-Free Network, Aliansi Masyarakat Adat Nusantara (AMAN), Yayasan Tambuhak Sinta (YTS), Blacksmith Institute, WALHI ICEL (Indonesian Center for Environmental Law), Lead Coalition. Directorate General of Disease Control and Environmental Health, Prof. dr. Tjandra Yoga Aditama, Sp(K), MARS, DTM&H, DTCE, Directorate of Coal and Environmental issues, Dr. Lana Saria. LGs of West Lombok, Central Lombok, Lebak Regency, Sumbawa Regency, Palu City, Gorontalo Regency, Solok Regency, Bombana Regency, West Nusa Tenggara Province, Central Kalimantan Province, West Kalimantan Province, Aceh Province, West Sumatra Province, Central Sulawesi Province, Gorontalo Province, North Sulawesi Province and many more. Newmont Batu Hijau, Southern Arc, Aneka Tambang, Bandung Institute of Technology, Universitas Mataram, Universitas Indonesia, Universitas Tadulako, Universitas Palangkaraya, Lembaga Ilmu Pengetahuan Indonesia/Indonesian Science Institute (LIPI), Badan Pengkajian dan Penerapan Teknologi (BPPT), Puslitbang Tekmira (Research and Development of Mineral and Resources Technology).

• Philippines: Ban Toxics – Atty. Richard Gutierrez, Environmental Management Bureau – Atty. Juan Miguel Cuna (Director, EMB), Dir. Leo Jasqreno – DENR-MGB

• Cambodia:

• Vietnam:

• Mongolia: Mongolian small-scale miners’ national federation, Step without borders NGO, Development solution NGO, MONFEMNET Mining trade union, Center for human rights and citizens, Health Ministry, Ministry of Health, Toxicology center, Mineral Resources Authority, ASM unit, Ministry of Mining, Mineral Resources Authority of Mongolia, Aimag and soum governors (aimag and soum mean administrative units at local level), National operator company, Altan Dornord Mongol company, Special Mines LLC.

Questions related to Minamata Convention obligations

1. Has your countries developed a national inventory of mercury use in ASGM:
   • Indonesia: Yes
   • Philippines: Yes
   • Cambodia: Yes
   • Vietnam: No
   • Mongolia: No

2. Was the ‘UNEP toolkit to estimate the releases of mercury to air, land and water from various sources’ used for this estimate?
   • Indonesia: Yes
   • Philippines: Yes
   • Cambodia: Yes
   • Vietnam: No
   • Mongolia: No

3. What do you see as the gaps in the inventory?
   • Indonesia: Mercury trade and export-import of mercury data are not available
   • Philippines: illegal sources of mercury, might be conservative
   • Cambodia: needs to be updated
   • Vietnam:
• Mongolia:

4. What activities has your Government initiate to prepare for the Minamata Convention? Specifically, what activities address obligation under ASGM Article 7.
• Indonesia: Indonesia is in the process of developing the National Implementation Plan to Eliminate and Phase-out Mercury
• Philippines: National Strategic Plan on ASGM is completed
• Cambodia: National Strategic Plan on ASGM is completed
• Vietnam:
• Mongolia:

Ideas for Assistance, information exchange or regional coordination

Is sustainability or replicability of successful projects an issue in your country?
• Indonesia: Yes
• Philippines: Yes
• Cambodia: Yes
• Vietnam:
• Mongolia: Yes

If so, how can this be encouraged?
A project implemented by BaliFokus, Indonesian NGO, with the funding from US Department of States. It was about the development of the Local Action Plan as part of the implementation of the National Action Plan on ASGM and mercury and the development of the technical informed choices catalogue of sustainable ASGM practices from the upstream level to the downstream level. Still ongoing. Another project by Ban Toxics, NGO based in Philippines with the community of Balbalan, Kalinga.

Do you see coordination of assistance as important in your country?
• Indonesia: Yes
• Philippines: Yes
• Cambodia: Yes
• Vietnam:
• Mongolia: Yes

If so, what is the best mode for coordination, in your view?
• Indonesia: Through bilateral and or multi-lateral cooperations facilitated by UN agency(ies).
• Philippines:
• Cambodia:
• Vietnam:
• Mongolia: workshops, trainings

Are regional workshops truly useful?
Indonesia: Yes
Philippines: Yes, but are expensive
Cambodia: Yes
Vietnam: yes
Mongolia: Yes

Would on-line coordination be more cost-effective and useful?

Indonesia: Yes
Philippines: Not sure
Cambodia: Yes
Vietnam:
Mongolia: Yes

Are there coordination networks in place now that could be expanded to include ASGM?

Indonesia: We can use the existing mercury technical working group but need to be expanded to include health practitioners, civil society representatives, local government representatives, provincial government representatives, miners representatives and large scale mining representatives. Some Indonesian agencies, universities and NGOs are in the consultation process to establish a knowledge platform on ASGM which will cover the technical, social, economy and health issues.
Philippines: National Steering Committee on ASGM
Cambodia: it’s very week
Vietnam:
Mongolia:

LATIN AMERICA
Responses provided by 6 governments (Bolivia, Brazil, Colombia, Ecuador, Peru, Suriname) and 1 NGO (University of Sao Paolo, USP)

Sectoral profile questions:

1. How many people are engaged in ASGM in your country?
   - Brazil: 150,000 (formal/informal) [USP: 300,000-500,000]
   - Colombia: at least 100,000 (mining census - ASGM)
   - Peru: 250,000-300,000 (total estimate) - 77,000 ‘units’ (juridic/individuals) in process of formalization
   - Ecuador: 10,000
   - Suriname: 20,000 miners (40,000 service providers)

   General comments:
   - Uncertainty levels are still very high
   - It is very important to have more complete information, updated, develop census

2. Where does mining take place within the country?
   - Brazil : Concentrated - Amazonia mostly, and some other state (Minias Gerais)
   - Bolivia: Throughout the country
• Colombia: Concentrates (95%) on 13 department (Antioquia, Chocó, Bolívar, Caldas)
• Peru: Throughout the country, particularly in South (2/3) (Madre de Dios, Puno, Arequipa, Ayacucho)
• Ecuador: concentrated in southern region (3 provinces: Zamora Chinchipe, El Oro y Zamora)
• Suriname: concentrated around the Green Stone Belt Area, South-East (50,000km2)

3. Who does the mining?

<table>
<thead>
<tr>
<th>Country</th>
<th>family landowners</th>
<th>migrant workers</th>
<th>immigrant workers</th>
<th>workers hired by landowners</th>
<th>women</th>
<th>children involved in the work</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Garimpeiros</td>
</tr>
<tr>
<td>Brazil-USP</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Ecuador</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suriname</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

• Peru: the modalities can vary between alluvial mining and Philo
• Suriname: all modalities exist, except women and children; lot of migrant workers from Brazil (garimpeiros)

4. How many women and children are involved in the sector?

Women:
- Colombia: 3,681
- Peru: 1,500
- Brazil: little amount

Children:
- Colombia: no official data – Colombia has a special program named “programa de erradicación trabajo infantil”
- Ecuador: is difficult to quantify – Some practices include children
- Bolivia: in some cases you can find children involved
- Suriname: no children or women

The group concludes that: It is important to determine the social structure of the sector and the relations of production. E.g. Peru: if they are organize for family groups or individuals, average age, etc., it is conditioned by the type of mining, and variables such as the level of violence.

5. How much gold do these miners produce each year?

- Bolivia: 7MT (oficial) –(7-8MT?)
- Brazil: 20MT - oficial
- Colombia: 50MT (80% by small-scale miners) –excluding illegal
Ecuador: 15MT (legal and informal)  
Peru: >40MT (legal and informal)  
Suriname: 20-30MT (includes mechanized/not only artisanal)

- In general, governments have official data of legal miners, but the volume of illegal and informal mining is difficult to quantify.

6. What price do miners get for gold?

Colombia: reference price from national Central Bank  
Brazil: price set by the London Stock Exchange (USP: 7-10% below spot price)  
Ecuador: depends of mineral (980USD/ounce; 15% below spot price)  
USP: not agree to sell for less than 10% below market value  
Peru: depending on international price (6-7% deduction); depends on quality of the mineral  
Suriname: 10% below spot price (in the field); 4-1% below (in the city)

7. How do the miners get access to mercury?

<table>
<thead>
<tr>
<th>Country</th>
<th>gold shop</th>
<th>dentist office</th>
<th>mine owner</th>
<th>other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td></td>
<td></td>
<td></td>
<td>illegal trade</td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
<td></td>
<td></td>
<td>commerce is not reported to the government / USP: clandestine buyers; gold shop from other States</td>
</tr>
<tr>
<td>Colombia</td>
<td>X</td>
<td>x</td>
<td></td>
<td>authorized importers</td>
</tr>
<tr>
<td>Peru</td>
<td>X</td>
<td></td>
<td></td>
<td>mining materials suppliers</td>
</tr>
<tr>
<td>Ecuador</td>
<td></td>
<td></td>
<td>X</td>
<td>Hardware store (‘ferreterias’)</td>
</tr>
<tr>
<td>Suriname</td>
<td></td>
<td></td>
<td></td>
<td>Smuggle</td>
</tr>
</tbody>
</table>

- Ecuador: The miners get access to mercury through borders  
- Colombia: pipetas 34kg/2500usd – the miners get access to mercury through borders and legally.  
- Suriname: need a permit to import; legal but governments are not giving permits– informal imports from Guyanas taking place

8. How much do the miners pay for mercury?

<table>
<thead>
<tr>
<th>Country</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>NA</td>
</tr>
<tr>
<td>Brazil</td>
<td>$ 404.00 /kg($300 / kg – USP)</td>
</tr>
<tr>
<td>Colombia</td>
<td>$ 5.000.000 / 34.5 kg</td>
</tr>
<tr>
<td>Ecuador</td>
<td>USD120/liter</td>
</tr>
<tr>
<td>Peru</td>
<td>500-600 Soles / kg</td>
</tr>
<tr>
<td>Suriname</td>
<td>USD250/liter</td>
</tr>
</tbody>
</table>

9. Are miners sensitive to price of mercury? (Would they use less if it cost more?)

- Colombia: Yes  
- Brazil: No  
- Bolivia: No  
- Ecuador: No  
- Peru: Yes (but limited, as far as gold price is high)
Suriname: Yes

10. Do you have an estimate of how much mercury miners use to produce gold

Colombia: 5:8:1 (mineria veta); 3:1 (alluvial)
Brazil (USP): 2:5:1
Bolivia: 7:1
Peru: 2:1
Suriname: 1:1

10. What are the common technologies and practices used by the miners?

<table>
<thead>
<tr>
<th>Country</th>
<th>crushing and grinding with mercury (e.g. whole ore amalgamation)</th>
<th>crushing and grinding, followed by concentration, with mercury added to concentrates</th>
<th>mercury-free, chemical-free processes such as gravity concentration (using sluices, centrifuge, shaking table etc)</th>
<th>chemical leaching process (such as cyanide leaching) on ore</th>
<th>chemical leaching process (such as cyanide leaching) on tailings</th>
<th>other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>X</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil (USP)</td>
<td>X</td>
<td>Sometimes</td>
<td>no</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Columbia</td>
<td>X</td>
<td>x</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ecuador</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>X?</td>
<td>x</td>
<td>x</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Suriname</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. If mercury is used, how is amalgamation performed? How is the amalgam burnt?

Bolivia: Mostly manually (also with fine cloth), or in “tolocas”; open burnt
Peru: manually or with specialized amalgamation equipment
Brazil (USP): mostly via carpets and mixers
Ecuador: crushing and grinding; mercury is added to concentrates
Colombia:
Suriname: open air/torching

Retorts are used when amalgam is burned:

Bolivia: yes
Peru: sometimes
Brazil: sometimes
Colombia: yes, usually
Ecuador: yes, usually
Suriname: sometimes

11. How do miners purify the gold?

  Brazil: by burning it (USP: mostly sold without purification)
  Colombia: melting with Au and Cu + acid solution
  Ecuador: Panela, detergent, petrol, among other
  Peru: no

12. What is the level of local knowledge about alternatives to mercury?

  Bolivia: low
  Brazil: low
  Ecuador: low
  Peru: low
  Suriname: low

13. Are programs or trainings available regarding alternatives available?

  Bolivia: Yes
  Brazil: No
  Colombia: yes
  Peru: yes
  Suriname: yes, but not yet implemented

14. If so, what are the adoption rates for these alternatives?

  Bolivia: Low
  Colombia: high
  Peru: Low
  Suriname: low

15. How well do miners understand the dangers of mercury?

  Bolivia: Know but don’t care / know but no alternative
  Brazil: know but have no alternative / know but don’t care
  Colombia: know but have no alternative
  Ecuador: know but have no alternative
  Peru: Know but don’t care / know but no alternative
  Suriname: Know but don’t care / know but no alternative

16. Who buys the gold from the miners?

  Brazil: “houses of gold”, accredited by the Central Bank, and cooperatives (USP: also clandestine buyers)
  Colombia: gold shops, and direct buyers or intermediates at the mine
  Ecuador: negociantes y pequeñas tiendas en ciudades cercanas
  Peru: initiates at mine
  Suriname: licensed buyers in the city (Paramaribo)

17. Do the gold buyers purify the gold?

  Brazil: yes. Capture methods: yes.
  Colombia: yes. Capture methods: yes
**Environmental questions:**

1. *What are the kinds of impacts you know about or have observed?*

<table>
<thead>
<tr>
<th>Country</th>
<th>Deforestation</th>
<th>Mercury contamination</th>
<th>Cyanide contamination</th>
<th>Sedimentation or other impact on water bodies</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Gases producto de la purificación del oro</td>
</tr>
<tr>
<td>Ecuador</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>eliminación directa de relaves y efluentes en los ríos, contaminación del suelo, desvió cauce natural de ríos (área aluviales), modificación del paisaje, alteraciones componente biótico, manejo inadecuado de desechos peligrosos.</td>
</tr>
<tr>
<td>Peru</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Soil disturbance</td>
</tr>
<tr>
<td>Suriname</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

2. *Are there any special studies or data collected on environmental contamination or health impacts from ASGM performed in your country?*

   Bolivia: Yes (Estudio del Banco Mundial sobre Minería Artesanal en Bolivia)
Brazil: Yes [Although the studies are isolated among themselves, the researches conclude about 100% increasing of mercury concentration with time peacock bass (Cichia sp.) collected in the Tapajós River and Lake Maica from 1992 to 2001. Therefore, since the species of high tropic level are affected, entire food chains may also be affected (Source in Protaguese).]

Colombia: na
Ecuador: Yes
Peru: Yes
Suriname: Yes

Legal questions:

1. What is the legal /regulatory status of small scale mining?

   Bolivia: illegal
   Brazil: Legal
   Colombia: legal / extra-legal / illegal
   Ecuador: illegal
   Peru: legal (formal ASGM miners)
   Suriname: extra legal / illegal

2. What is the legal status of mercury use in your country?

   Bolivia: not legal
   Brazil: Legal
   Colombia: legal
   Ecuador: not legal
   Peru: legal (formal miners)
   Suriname: not illegal (need permit to import, but permits given by Ministry of Trade – not being issued)

3. How are miners typically organized?

<table>
<thead>
<tr>
<th>Country</th>
<th>individuals or family groups</th>
<th>owners with paid labor or shared profit model</th>
<th>cooperatives</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>X</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>X</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ecuador</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>“Cachorro” – en especie</td>
</tr>
<tr>
<td>Suriname</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
3. How do miners typically access capital?
   Bolivia: Self-funding.
   Brazil: The “garimpeiros” access credit through investors (USP – they use own funds)
   Colombia: loans by national banking institutions; private investors and/or multinationals
   Ecuador: By means of associations, they ask for credits, or in many situations money that is given in illegal form

4. Besides the artisanal and small scale miners, who are the key stakeholders at national regional and local levels, including government and community-based organizations active in mining communities?
   Bolivia: NGOs, Min of Mining, large scale mining
   Brazil: Min of Mining, Min of Environment (USP: provincial govt and large scale mines: detractor to the activities).
   Peru: Min of Mining
   Colombia: NGOs, Central and regional governments
   Suriname: NGOs – WWF Guianas; Ministry of Public Health; Ministry of Natural Resources
   Ecuador: NGOs, Min of Health, Min of Industry, local and regional government

Questions related to Minamata Convention obligations:

1. Has your countries developed a national inventory of mercury use in ASGM:
   Yes: Bolivia (not at national level);
   No: Colombia (but Register being developed); Brazil (not-concluded); Suriname; Ecuador (but a general inventory using the UNEP toolkit was conducted)

2. Was the “UNEP toolkit to estimate the releases of mercury to air, land and water from various sources?
   Yes: Colombia;
   No: Brazil; Bolivia;

3. What do you see as the gaps in the inventory?
   Brazil: some gaps in raw data and weakness in coordination at state level
   Brazil-USP: miners and cooperatives not aware of the inventory initiative
   Bolivia: inventory is currently limited to a specific region

4. What activities has your Government initiate to prepare for the Minamata Convention? Specifically, what activities address obligation under ASGM Article 7.

Ideas for assistance

<table>
<thead>
<tr>
<th>What specific kinds of assistance would be most helpful to your country in implementing obligations under the Convention?</th>
<th>Need NOW</th>
<th>Need in future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training on doing mercury inventories</td>
<td>Bolivia</td>
<td></td>
</tr>
</tbody>
</table>
| **Training on alternative mining techniques to reduce or eliminate mercury use and release** | **USP Suriname** | **Brazil**  
**USP**  
**Colombia**  
**Ecuador**  
**Peru**  
**Suriname** |
|---|---|
| **Training on mercury capture during purification** | **Brazil**  
**USP**  
**Peru**  
**Ecuador**  
**Suriname** | **Bolivia** |
| **On-line training of miners and processors** | **Suriname**  
**Colombia**  
**Ecuador**  
**Peru**  
**USP**  
**Brazil** | **Bolivia** |

**Policy development**

| **Setting up formalization system** | **Bolivia**  
**Brazil**  
**Ecuador**  
**USP**  
**Suriname** |
|---|---|
| **Land tenure/property rights/cadastre system** | **Bolivia**  
**Brazil**  
**Ecuador**  
**USP**  
**Suriname** |
| **Facilitation of National Action Plans** | **Bolivia**  
**Brazil**  
**Ecuador**  
**USP**  
**Suriname** | **Colombia** |

**Marketing approach**

| **Developing supply chains to maximize mercury-free** | **USP**  
**Colombia**  
**Ecuador**  
**Peru**  
**Suriname** | **Brazil**  
**Suriname** |
|---|---|
| **Addressing health impact issues** | **Bolivia**  
**Brazil**  
**USP**  
**Colombia** | **—** |
### Annex 3

**Summary of the Break-out Session**

<table>
<thead>
<tr>
<th>Region</th>
<th>What is the best platform in your region?</th>
<th>What are the common areas of collaboration?</th>
<th>How do we get platforms functional and sustainable?</th>
<th>How will finance platforms?</th>
</tr>
</thead>
</table>
| **Latin America** | The region identified two types of platforms:  
- International platform which allows exchange information worldwide.  
- Regional platform which allows discuss, exchange information of similar conditions.  
Finally, the group | - Formalization ASGM  
- Development of policies  
- Clean technologies and equipment  
- Environmental Legislation  
- Environmental Education  
- Training Centers  
- Chemical analysis laboratories to strengthen | - Creating synergies or/and getting advantage the actual ones  
- Easy access to users  
- Leadership and management responsibility to an entity, agency or program with expertise  
- Development Regional and international levels  
- Development working with Communities | - International cooperation  
- Free online platforms |
highlighted the importance of working in different spacious to create synergies and avoid duplication of efforts

| monitoring activities | - Health
- Smuggling
- Development technical guide |
<table>
<thead>
<tr>
<th></th>
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<td>- Institutionalization</td>
<td>- Create national implementation mechanisms to scale-up experiences.</td>
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| Asia / Africa | Platform, network or pull of experts on ASGM hosted by a regional institution e.g UNECA, UNEP, African Union, etc. reporting back to the global platform, which consists of Africa, Latin America and the Caribbean and Asia and the Pacific.
- Asian platform linked with the current projects
- On-line discussion forum / network |
|----------------|---------------------------------------------------------------|
| - Transboundary water pollution by ASGM
- Market structure and prevention of illegal flows of “conflict” and/or chemicals
- Information exchange on ASGM issues-Knowledge sharing on technology, environment, legal, social issues, etc.
- Study tours
- Formalization and strategic plans including the preparation of the implementation of the Minamata Convention (e.g. workshops for capacity building for countries in preparation of the action plans). |
| - Incorporate activities of the network within the sustainable development plans in each country
- Host platform in regional bodies
Relate platform to already established sub-regional structures |
| - Platform will be funded by: GEF, UNEP, UNIDO, Governments and private sector e.g. miners and related industries.
- Incorporate development partners since the beginning of the process
Government to be involved since the beginning of the process both financially (e.g. taxes from the mining industries, mineral development funds, etc.) and with human resources
Platforms will be coordinated by: Regional coordination and focal points with linkages with sub-regional structures.
Institutionalization of activities e.g. steering committees usually led by Ministries in charge of the environment
Using already existing platforms rather than creating new ones. |
Annex 4
Mass Media impacts

In the following information there are some evidence about Peru’s mass media impacts after Second Global Forum on artisanal and small scale gold mining.

Source: El Comercio - Peru, September 7th, 2013.
“El mercurio de la minería ilegal afecta más a los indígenas”


Source: El Comercio - Peru, September 7th, 2013.
Annex 5

Intervención

del Sr. Djumakadyr A. Atabekov,
Embajador en Misión Especial
y Representante de Kirguizistán
ante el Segundo Foro Global de Excavación
de Oro Artesanal y de Pequeña Escala.

Lima, Perú
3-5 de septiembre de 2013

Sr. Presidente,
Distinguidos delegados,
Sras. y Sres.:

Primeramente quisiera que me permitieran pronunciar algunas palabras introductorias, ya que para un oriundo del lejano Kirguizistán de Asia Central es una circunstancia fuera de lo común encontrarse en la hermosa tierra de los incas y poder extender en nombre de su Gobierno y su pueblo un saludo fraternal al Gobierno y al pueblo del Perú y a los delegados de este Segundo Foro Global de Excavación de Oro Artesanal y de Pequeña Escala y desechar exitos creativos de importancia. Es al mismo tiempo un placer para el expresar el agradecimiento del Gobierno Kyrgyz al PNUMA por querer invitar a dicho Evento Internacional a una delegacion de Kyrgyzstan, la que junta su voz a la de los delegados que valoran altamente al Gobierno pernano por la magnífica organizacion del Foro.

Nuestro Gobierno le expresa su satisfacción a los gobiernos de EE.UU, Noruega y España por su aporte financiero.

El llevar a cabo nuestra conferencia apenas haber pasado unos breves meses de haberse aprobado el <Convenio de Minamata sobre mercurio> hay que considerarlo como un gran interés en los acuerdos alcanzados por CIN-V en Ginebra, en el mes de enero pasado.

Además este Foro adquiere un sentido muy particular como víspera de la Conferencia Diplomática de Plenipotenciarios, los que se proponen a echar “humo blanco” al Convenio de Minamata”. El Gobierno del Japon el amable anfitrion de la misma, que tendra lugar dentro de un mes de aqui merece todo respecto.

Sr. Presidente,

Los ultimos dos a tres decenios de anos los esfuerros del PNUMA, del Fondo Global Ecologico y de varios Gobiernos han resultado en ampliacion de la actividad Internacional proambiental relacionada con ensuciamiento del medio ambiente. En una cierta medida a ello contribuye la actividad práctica del hombre en diversas esferas de su vida y su
existencia, especialmente en el sector productivo. Esto sucede en los trabajos con oro artesanal, ya que este proceso en un principio tampoco se realiza sin el uso de mercurio. Dicho de otra manera el quehacer humano y de los estados con fines del desarrollo ulterior entran en una situación contradictoria entre sí, siendo esta la razón por lo que el PNUMA y FEG en el espíritu y sus principios ecológicos están haciendo un llamado a la comunidad mundial a la búsqueda conjunta de las vías para superar tales contradicciones. Quisiéramos entre tanto prestar atención a que dichas contradicciones no son tales en esencia, pero no dejan de ser factores objetivos interdependientes de promoción del desarrollo progresivo de la sociedad, la que en su camino a la siguiente fase tiene que evitar las consecuencias desfavorables que surjan eventualmente.

En este sentido el Convenio de Minamata sugiere direcciones donde se puede emprender la mencionada búsqueda, incluso en lo que concierne al oro artesanal. Siendo el Convenio el fruto de la conciencia y actos colectivos del PNUMA, FGE, de delegaciones gubernamentales y del CIN, preocupándose por la salud y bienestar del hombre y en mantener nuestra flora y fauna y el medio ambiente en general limpios.

El Gobierno kirguiz comparte los objetivos y tareas expuestas por el Convenio. Sin embargo quiere indicar que sigue estando atento a razones de sus consecuencias en cuanto a la situación de los productores de mercurio, teniendo en cuenta el carácter estratégico del documento. No en vano el problema de todos los organismos vivos y recursos naturales está explícitamente marcado por la Declaración del Milenio de la NNUU como uno de los seis valores fundamentales del siglo XXI.

Sr. Presidente,

A nuestro entender la Agenda del Foro previamente centra su atención en el problema del medio ambiente y no es lo más significativo, pero aun así no deja de ser menos importante. Las circunstancias de la excavación de oro artesanal están expuestas en el Artículo 7 del Convenio, cuya esencia está bien clara a todos. En cuanto a nosotros quisiéramos solo señalar en este artículo la idea relacionada con el Plan de Acción Nacional y del derecho a mantener la colaboración con otras partes del Convenio.

Acogiendo positivamente dicha idea Kirguizistán es partidario de todo el curso negociador sobre mercurio en el sentido positivo de la elaboración de las seguras alternativas de garantía de la producción primaria de mercurio. Es realmente vital para los empleados y productores del mismo y para la población en general porque al fin y al cabo la estabilidad político social del país es de prioridad. Entendemos que este problema propone obligaciones para todas las partes en acción.
Sr. Presidente,

En cuanto al oro artesanal en la República de Kirguizistán y su porvenir hay que decir lo siguiente. El territorio de la República se caracteriza por el alto grado de presencia del oro. Se han detectado y se han marcado cerca de mil puntos de hallazgos de oro en todo el país, o sea que en un área de 90 km$^2$ hay un punto o lugar. Funcionan siete minas, quince están en procesamiento, dos pozos en construcción. El volumen de oro producido anualmente es de 20 toneladas aproximadamente.

El procesamiento de oro informal se lleva a cabo en Kirguizistán desde principios del siglo XX. Antes dela independencia este tipo de actividad humana estaba sometida a las leyes soviéticas y al sistema centralizado de la URSS.

Actualmente la búsqueda de oro informal en Kirguizistán está un poco más privilegiada. Se aprobó una nueva Ley-<Sobre yacimientos naturales>, la que regula este tipo de actividad humana. Según esta ley los derechos de dicho proceso se les otorgan a las Administraciones Locales a las que se les da el poder de chequear y registrar a hombres y lugares de búsqueda, entregar licencias. La Ley junto con la Disposición Gubernamental de 2008, tomada a su raíz prevé medidas para poner fin al comercio ilícito del metal dorado, así como también cerrar los canales de su tráfico. Además se ha promulgado el método de excavación que es solo por gravitación. En principio esta labor se efectúa en las cercanías de minas en acción. El concentrado con oro obtenido por buscadores se entrega a las llamadas <cajas de recibo de oro> (CRO) en el mismo sitio o en los puntos de recogida, creados oportunamente.

El uso de sustancias venenosas fuertes, o sea acido ciánico, amalgamación, etc., está prohibido. Los violadores responden ante la Ley.

El sistema de oro artesanal y de pequeña escala. al igual que toda la rama de minería en Kirguizistán , requieren un perfeccionamiento. Partiendo de tal necesidad las organizaciones publicas, estructuras interesadas, así como la Agencia de Geología y Recursos Minerales, el órgano apoderado en esta área, hoy se ven más activos: se efectúa un trabajo informativo educativo con los administradores locales, se han organizado entrenamientos profesionales sobre la peligrosidad del empleo de la amalgamación, etc.

En 2003 los organismos no comerciales, junto con la Agencia de Geología, llevaron a cabo importantes investigaciones de la actividad de los buscadores de oro y de pequeñas compañías individuales. El objetivo era ayudar al Gobierno en determinar tipos y escala de trabajo de estos, ver la posibilidad de ligar este sector con la economía nacional del país, estimar el carácter y calidad del perjuicio infligido a la naturaleza, hacer un análisis profundo
de la coyuntura del medio ambiente. Los datos obtenidos fueron publicados en cooperación con el BM y distribuidos entre los interesados y comunidades locales. Consideramos que dichos emprendimientos pueden formar una base inicial para crear el Plan de Acción Nacional mencionado anteriormente. El intercambio de información y experiencia con Uds., Sres. Delegados, nos permitirá dar una nueva ojeada a esta tarea.

Sr. Presidente,

El Gobierno de Kirguizistán tiene pleno entendimiento y comparte la preocupación de la comunidad internacional por la situación creada en torno al oro artesanal y al destino del mercurio, y se propone a contribuir hasta que pueda a la causa común pro-ambiental. Al mismo tiempo quisiéramos ser bien claros, que consideramos con muy serio interés los métodos de trabajo en dicho entorno ya discutidos con otros países.

Finalizando estas palabras quisiéramos subrayar una vez más que el Convenio de Minamata sobre el mercurio y el asunto que está aquí presente sobre el tapete son de sentido estratégico para todos nosotros, particularmente para las economías vulnerables como lo es la de la República de Kirguizistán. A raíz de ello estamos dando al mismo un razonamiento más, hasta llegar a una idea de que el lapso de tiempo hasta 2025 como punto de sugerencia para la restructuración de la producción primaria de mercurio, no es suficiente. A nuestro juicio la realización de más consultas e intercambio de experiencias, basándose en el principio de obligaciones y tareas comunes no serán inutiles.

¡Muchas gracias!