



# United Nations Environment Programme

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PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT • PROGRAMA DE LAS NACIONES UNIDAS PARA EL MEDIO AMBIENTE

ПРОГРАММА ОРГАНИЗАЦИИ ОБЪЕДИНЕННЫХ НАЦИЙ ПО ОКРУЖАЮЩЕЙ СРЕДЕ

## Addressing the Social and Financial Challenges of Artisanal and Small Scale Gold Mining

### Meeting Summary

**Geneva, Switzerland  
International Environment House II**

**Thursday, 23 September 2010, 14h30 – 17h00**





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## **Meeting Summary**

Geneva, 23 September 2010

1. The meeting was opened by Mr. David Piper, Deputy Chemicals Branch of the United Nations Environment Programme's Division of Technology, Industry and Economics (UNEP Chemical). Opening the meeting he remarked that approximately twelve percent of the global supply of gold is produced annually by artisanal and small-scale gold miners and with the price of gold reaching new highs, this sector is likely to grow. He commented that this meeting was organized for the international community and stakeholders to highlight changing global policies on mercury in light of the future global mercury treaty. He urged participants to consider their possible role in developing and supporting an effective global solution in the artisanal and small-scale gold mining (ASGM) sector.
2. The first presentation was given by Mr. Kevin Telmer who has 15 years of experience working with artisanal and small gold mining communities in numerous countries. He is the founder of the Artisanal Gold Council (AGC), an organization that promotes sustainable development in artisanal and small scale gold mining communities and is affiliated with the University of Victoria, Canada. The speaker stated that ASGM currently represents one third (approximately 1000 tonnes a year) of mercury demand globally. As mercury is easy to use, accessible and cheap, it is widely used by the miners to extract gold. Discussing the economic aspect of ASGM, he noted that gold is an excellent method of transferring wealth from rich to poor countries indicating that small producers get 70% or more of the international price in remote areas. The presenter recommended that ASGM needs to be brought into formal economy to maximize benefits and for this to happen, improved practices and reputation are essential. He stressed that whole ore amalgamation is a mercury intensive practice that should be replaced. Some technical solutions to decrease the use of mercury in ASGM were presented, including emission control through the use of fume hoods and retorts, mercury re-activation and other non mercury techniques such as gravity separation and chemical leaching. He also indicated that field work is the source of innovation and progress.
3. The next presenter was Ms. Nawal Ait-Hocine who was representing Cartier. She is the manager of Cartier's ethical, social and environmental performance with a particular focus on product manufacturing, supply chain issues and corporate communications. She noted that Cartier is taking a leading role in the advancing exemplary ethical conduct through a 'corporate approach'. Cartier buys gold from Goldlake mine and has signed a unique sourcing deal with the company. Goldlake addresses many social and environmental issues related to gold mining and has a business model, not an 'aid' model, practicing mercury and cyanide-free extraction processes and a zero discharge waste and water management system. Goldlake has an interdependent working relationship with artisanal miners from the local community who supply them with gold extracted by using traditional mercury-free techniques. Cartier is seeking other 'partners' who can demonstrate similar high standards and mutually support the Cartier strong bond with its customers and sustainable development.
4. The next presentation was given by Mr. Patrick Schien. He is a French entrepreneur and has been active in the precious metal industry for 30 years. In 1992 he founded a Precious Metal Trading Company operating its own refinery in Paris and is a member of the executive board of Alliance for Responsible Mining (ARM). He outlined ARM's fair trade label approach and

highlighted some of the important issues which are addressed by the fair trade model. The advantages of the Fair Trade Labeling Organization (FLO) model is that it can directly raises awareness of consumers and campaigns for change about social and environmental challenges associated with ASGM activity. This bottom-up business model is transparent and democratic and ensures a fair price of gold to miners while promoting traceability along the supply chain. The presenter pointed out some of the social challenges faced by the miners and mining community including legal issues, formalization/organization, developing democratic governance, literacy, gender issues, child labor, transparency and accountability in organizations. He also highlighted the following economic development challenges: strengthening administrative capabilities, developing economies of scale, export markets and pre-financing for purchase of gold and cleaner technology. Getting banks, professionals and governments to work with ASGM is a major challenge to the model. Overall, he indicated that the private sector will play a pivotal role in providing the access to credit needed to address these challenges.

5. The last presentation was delivered by Mr. Juan Miguel T. Cuna, Director of Environment Management Bureau of the Department of Environment and Natural Resources, Philippines. The presenter gave a government perspective of ASGM and the challenges faced at a national level. In the Philippines, the sector provides employment to more than 300,000 miners, including 18,000 women and children and supports the livelihood of about one million people. Miners are generally organized in the Philippines and are mostly families and neighbors involved in 'backyard' activities. He identified one of the key issues faced by the government in terms of ASGM is that about 30 permits are issued for small-scale gold mining covering more than 400 hectares of mining areas while the rest of the small scale mines are operating without legal mining titles. The presenter expressed his concern about the large amount of mercury being used in the sector (70 tons of estimated annual mercury release in 2008 alone). The mercury is supplied mostly by the gold dealers to the miners. Some of the social concerns he outlined for this sector include: uncontrolled migration into mining areas, land tenure and resource use conflicts, exploitation of workers especially minors and absence of social security benefits for miners. The presenter explained that in order to understand and solve the issues in the sector the government is developing a National Strategic Plan on ASGM. He indicated that there is a need to approach the issue from a development perspective and focus on the policymakers, making sure they understand the importance of the sector. These changes will require addressing difficult social aspects and long term action will depend on the availability of funding. In conclusion the presenter noted that the strategic plan is a promising work in progress, and it should be kept in mind that there was no silver bullet to fix the problem.

## Discussion

Susan Keane (Natural Resources Defense Council), the co-lead of the Artisanal and small scale gold mining partnership area facilitated the discussion period.

6. There was some discussion around the origin of the gold in Fair Trade labeling schemes. Mr. Schein responded by noting that the only way to fingerprint gold is radioactivity tracing, which is not feasible. The certified miners have reporting obligations to the Fairtrade labeling organization (FLO), and the sites are routinely audited. When asked whether there are any

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specific guidelines or criteria in the selection of the sites where they do gold mining, Mr. Schien responded by saying that environmental considerations are one of four aspects of the FLO standards and environment is addressed in the best way possible.

7. There was a discussion about a global strategy for the production and supply of gold. Mr. Telmer explained that there are no good estimates of how much gold is available to ASGM and that for this reason the formalization and inclusion of the ASGM miners in the society is important. Most miners do not want to become legal as they would have to pay taxes. In order to convince miners to be part of the system, governments must find ways to either increase their productivity or develop innovative taxation systems.
8. Commenting on the implementation of the National Strategic Plan for Philippines, Mr. Cuna noted that the most important aspect at the national level is the understanding of the problems by the members of ASGM communities. The importance of voluntary basis initiative being backed by governments was highlighted and the strategic plan was identified as an important tool for promoting that. It was also recognized that governments have a role to play in the provision of services to this sector
9. Mr. Cuna further commented on the linkage of small scale mining with large scale mining, noting that there are some cases of conflict between the two sectors but usually they get along well.
10. A question was raised about the panel view of ASGM in conflict countries and the links to the informal economy. The presenters explained that for mining, stability is essential because of the investment needs. In the Philippines, certificates are issued to ASGM miners for their operations. Local people usually prefer small scale mining to large scale mining as the revenues are more directly and rapidly redistributed to the local community.
11. One of the participants asked the representative of Cartier about obtaining more 'clean' gold sources. She responded that the problem was with the limited supply. If the supply was to increase, Cartier would be buying more 'clean' gold.
12. There was a concern raised over the issue of human rights in gold mining and the actions taken to bring the miners into the formal economy. Mr. Schein responded by noting that human rights are the first aspects of the FLO standards. He said that the way to get more miners seeking certification is to get more consumers requesting Fairtrade and Fairmined gold hence creating a demand for this gold. ARM hopes to eventually reach 20-25 tonnes of FLO certified gold per year.
13. Responding to a question on International Labor Organization's role in child labor in mining, the representative from ILO, Ms. Susana Gonzalez, noted that the organization had started an international programme for the elimination of child labor which began in 2005.
14. Ms. Veerle Van Wauwe from the Transparence S.A was invited by the facilitator to comment on the ASGM activities going on in Peru, given her organization's experience there. She said that the government lacked the infrastructure to deal with the strong influx of people in the ASGM sector. She noted that the financial sector has to get involved in order to assist with the necessary investment.

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**Concluding remarks**

15. Concluding the session, the ASGM partnership area co-lead, Mr. Ludovic Bernaudat (UNIDO) expressed his gratitude to the participants for taking the time to participate in the meeting. He noted that this session was very informative as they learned about the sector and the innovative market-based approaches that are being implemented and came as a key complement to the more traditional technology transfer and local awareness raising activities. He observed that numerous innovative examples exist, need to be promoted and replicated. These include improvements at the production stage but also acting at all levels of the value chain, all the way to the consumer. Overall, the issues raised by the sector are multifaceted and require multi-stakeholder approaches.



<b>Appendix 1: list of participants</b>
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**Government Representatives**

1. Xhixho Dorina, Albania
2. Ismayil Alakbarov, Azerbaijan
3. Budoor Ahmed, Bahrain
4. Johanne Forest, Canada
5. Gedeón Jaramillo Rey, Colombia
6. Mario Vega Hernández, Costa Rica
7. Raffaele Rainone, Italy
8. Anne Keah, Kenya
9. Seung Hee Kim, Republic of Korea
10. Mady Chababy, Madagascar
11. Victoria Romero, Mexico
12. Bilal Ahmad, Pakistan
13. Jorge Félix Corrales Hidalgo, Panamá
14. Bilal Ahmad, Pakistan
15. Iuti Zevallos, Peru
16. Elizabeth Te, Philippines
17. Leizel Fernandez, Philippines
18. Mohamad Arnous, Syria
19. Pauline Davies, Uruguay
20. Fernando Lugris, Uruguay
21. Boris Richard, Switzerland (Federal Department of Foreign Affairs)
22. Thomas Heimgartner, Switzerland (Federal Department of Foreign Affairs)
23. Chameso Mucheka, Zimbabwe
24. Enos Mafeunba, Zimbabwe
25. Jane Dennison, United States
26. Kenneth J. Davis, United States

**United Nations system, intergovernmental organizations and MEAs**

25. Rizzolio Diana, UNEP/GEN
26. Laura Schibler, UNEP/GEN
27. Gianfranco Caci, UNEP/GEN
28. Robert Bolješić, UNEP
29. Daniel Luka CURNIER, UNEP
30. Hassan Partow, UNEP
31. Ivo Mulder, UNEP/FI
32. Roy Brooke, Joint UNEP/OCHA Environment unit
33. René Nisenhuis, Joint UNEP/OCHA Environment unit
34. Ruth A. Etzel, Department of Public Health and Environment
35. Anida Yupari Augado, UNCTAD
36. Ludovic Bernaudat, UNIDO
37. Stefano Sensi, OHCHR
38. Joanna Tempowski, WHO
39. Celia Solari, University for Peace
40. Monica Zavagli, Ramsar Convention on Wetlands Secretariat
41. Cathleen Cybèle, Ramsar Convention on Wetlands Secretariat
42. Alexander Kasterine, ITC
43. Martin Georg Hahn, ILO

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44. Susana Gonzalez, ILO

### **Non-governmental organizations**

- 45. Otto Simonett, Zoï Environment Network
- 46. Nickolai Denisov, Zoï Environment Network
- 47. Victor Novikov, Zoï Environment Network
- 48. Stephan Robinson, Green Cross Switzerland
- 49. Andrea Walter, Green Cross Switzerland
- 50. Jean-Baptiste Ronat, Médecins Sans Frontières
- 51. Alexander N.S. Mabelle, Iqsensato
- 52. Margo Kowalczyk, Business & Human Rights Resource Centre
- 53. Helmut Lubbers, Ecoglobe
- 54. Yves Lador, Earthjustice
- 55. David Azoulay, Ciel

### **Academic institutions**

- 56. Meg Harbourd, University College, Oxford
- 57. Peter Larsen, IHEID
- 58. Annika Oskarson

### **Private sector**

- 59. Fouad Farfara, Momitrad Sarl Salé Maroc
- 60. Van Wauwe Veerle, Transparence s.a
- 61. Christopher H. Cordey, Wholebeauty
- 62. Christophe Joner, Metalor Technologies SA
- 63. Zeto Steiner, Metalor Technologies SA

### **Others**

- 64. Nicolas Hofer
- 65. Andrea Barahona
- 66. Evelyn Mütze
- 67. Rachel Grisendi
- 68. Juliana Galan

### **Speakers**

- 69. Kevin Telmer, Artisanal Gold Council (AGC)
- 70. Nawal Aït-Hocine, Cartier International SA
- 71. Patrick Schein, S&P Trading /Alliance for Responsible Mining (ARM)
- 72. Juan Miguel Cuna, Philippines Department of Environment & Natural Resources
- 73. Ludovic Bernaudat, United Nations Industrial Development Organization
- 74. Susan Keane, Natural Resources Defense Council

<b>Appendix 2: Program</b>
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## **Addressing the Social and Financial Challenges of Artisanal and Small Scale Gold Mining**

**Geneva Briefing - Thursday 23 September 2010 from 14.30 – 17.00,  
IEH II**

**Purpose of briefing:** To raise awareness, foster a dialogue and build collaboration with international organizations, the private sector and non-government organizations of the issue and challenges associated with artisanal and small scale gold mining.

14h30 – 14h45     **UNEP Welcome and Introduction**

14h45 – 15h05     **Introduction to the issue of Artisanal and Small Scale Gold Mining**  
(Presenter: Kevin Telmer, Artisanal Gold Council)

15h05 – 16h15     **What are possible solutions to the ASGM financial and social challenges?** (Panel presentations)

Proposed Presentations (10-15 minutes each):

- i)     Supply chain approaches – Jewelry example  
(Presenter: Ms. Nawal Ait-Hocine, Cartier)
  
- ii)    Gold branding – Fairtrade and Fairmined gold example  
(Presenter: Mr. Patrick Schein, President S&P Trading /  
Executive Board Member - Alliance for Responsible Mining (ARM))
  
- iii)   Government approaches at the national level  
(Presenter: Mr. Juan Miguel Cuna, Philippines Department of  
Environment & Natural Resources)
  
- iv)    Independent local initiatives  
(Video presentation: Crispin Clean T Mine)

16h15             **Panel Questions and Answers**  
(Facilitated by Ms. Susan Keane, Natural Resources Defense Council)

Facilitated discussion on ASGM and the role of the various stakeholders  
Discussion on possible next steps / areas for collaboration

17h00             **Close**  
(Mr. Ludovic Bernaudat, United Nations Industrial Development Organization)

## **Background - Social and financial challenges in artisanal and small scale gold mining**

### **Gold plays a central role in the global economy.**

- Gold is a reserve asset, accounting for 10% of reserves held by central banks. Gold is also used as an investment tool. In 2008, the overall gold market saw inflows of US\$ 106 billion, of which US\$ 32 billion represented investment flows.<sup>1</sup>

### **Artisanal and Small Scale Gold Mining (ASGM) is an informal but globally significant industry.**

- Twelve percent of the global supply of gold is produced annually by ASGM.<sup>2</sup> This sector is likely to grow due to the sustained high price of gold, which reached \$1,250 an ounce in June 2010.
- ASGM is broadly described as the extraction of gold by miners working in small or medium sized operations, using rudimentary techniques. Simple practices with little economic investment are used.
- ASGM directly employs around 10 million, and indirectly as many as 50 to 100 million people globally, almost all of whom live in developing countries. The sector provides an important mode of employment and income where alternatives are not easily found, and often forms the basis for a relatively sophisticated but informal local economy.
- This sector is extremely decentralized and generally informal. It often takes place in remote areas with little or no government presence.

### **Serious social and environmental challenges are associated with ASGM.**

- ASGM cuts across many development issues, including poverty, economic development, gender, child labor and environment. For example, child labor, environmental damage and human rights abuses often arise from marginalized ASGM activities and can affect the reputation and operational capacity of corporations and their investors.
- Regulatory approaches tend to have limited effectiveness in addressing challenges associated with this informal sector.

### **A global mercury treaty is a mechanism for engaging with the ASGM sector.**

- Governments unanimously agreed at the UNEP Governing Council in 2009 to the negotiation of a global legally binding instrument on mercury to protect human health and the environment from the harmful effects of mercury. Negotiations, facilitated by UNEP, began in June 2010 and are to be completed by 2013.
- Global treaty negotiations for mercury are raising the profile of the ASGM issue because this sector is the largest demand sector for mercury globally. Mercury is used to extract gold because it is cheap, easily accessible, quick and easy to use.
- The future convention on mercury is likely to restrict the supply and trade of mercury. Limiting supply of mercury could compel miners to change their practices. At the same time however, the mercury treaty itself will not fix all of the other challenges linked to the ASGM issue. It will be imperative to provide other types of social support to miners to avoid creating a black market for mercury, negatively impacting the income of miners and increasing the transparency of the gold supply chain.
- It is important for the international community and financial institutions to be aware of changing (global) regulation on the use of mercury in the ASGM sector and consider their possible role in supporting an overall effective global solution, and many worthwhile initiatives are underway.
- Involvement of a broad network of stakeholders from the outset can help tackle some of the challenges associated with ASGM. A market-based approach is needed to complement the ongoing intergovernmental negotiations process.

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<sup>1</sup> World Gold Council data.

<sup>2</sup> "Squeezing Gold from a Stone" available on the UNEP Hazardous Substances website: [www.unep.org/hazardoussubstances/](http://www.unep.org/hazardoussubstances/)

**Appendix 4: Presentations**

Introduction to the issue of Artisanal and Small Scale Gold Mining  
 Presenter: Kevin Telmer, Artisanal Gold Council

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**Introduction to Artisanal and Small Scale Gold Mining:  
 Who is Involved and Approaches to Solutions**



Kevin Telmer,  
 Executive Director, Artisanal Gold Council  
 Prof. University of Victoria



Slide 2

**Outline**

- Artisanal and Small Scale Gold Mining
  - What it is
  - History and Background
  - Why it is important
- Types of Solutions
- Future Scenarios

Slide 3

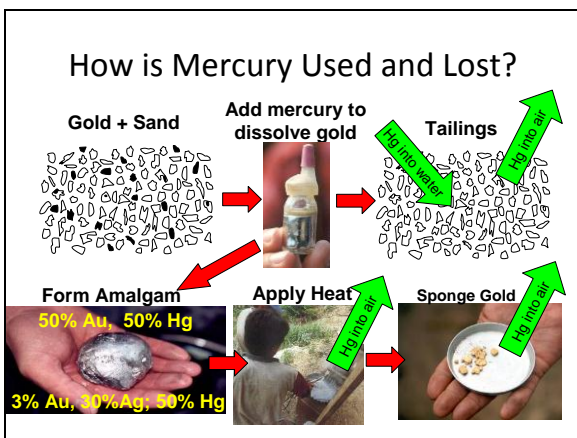
**ASGM**

- Exploitation of small deposits
- Low capital input
- Labour-Intensive
- Poor Access to Markets and Support Services
- Low Standards of Occupational Health and Safety
- Significant Environmental Impact

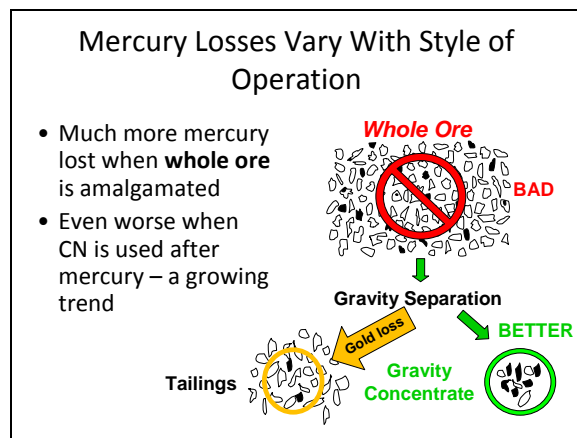
Slide 4



Slide 5




Slide 6



Slide 7


### Why is Mercury Used?

- Very easy
- Very independent – 1 person can do it
- Highly effective under field conditions
- Accessible
- Cheap
- Facilitates precise transactions
- Produces quick capital (1 day)
- Divides profits
- Miners are not aware of the risks
- No choice




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### Alluvial ASGM



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### Gold Shop Processing - Cupellation (Fire Assay)



Slide 12



5.100 GR  
0.200 GR  

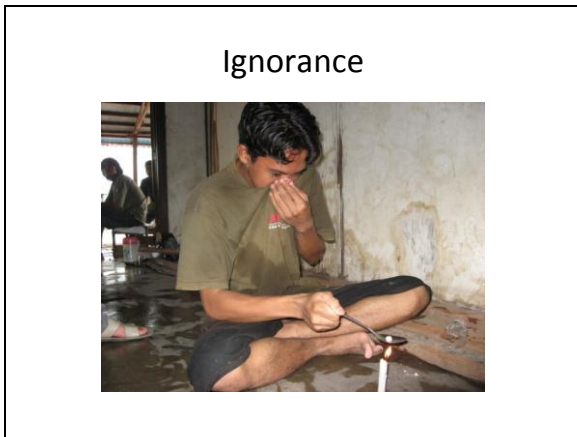
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4.900 GR

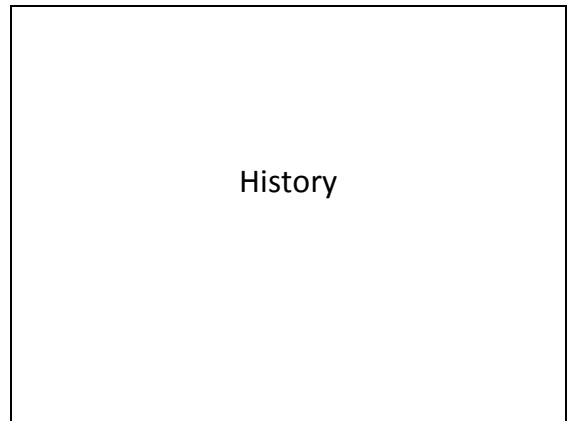
**24K**  
Internationally  
Tradable

99.9%

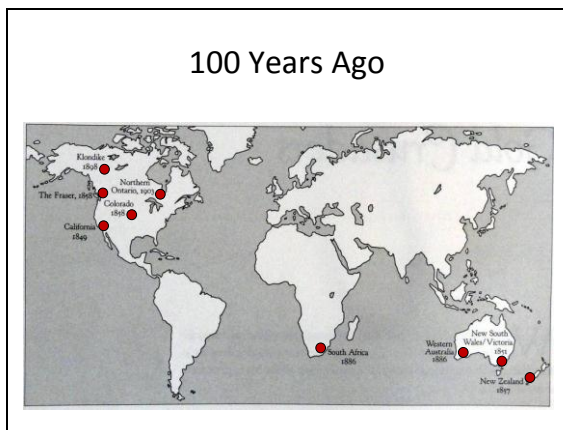
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Slide 14



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Slide 18



Slide 19

### Toronto

- **Beginning of modern mining sector based on ASM**
- King Edward Hotel Stock Exchange 1903
- Royal Canadian Mint 1903
- Railway to Cobalt Ontario built
- Newspapers, the Financial Post & Northern Miner were created
- Geological Knowledge began to be heavily employed
- Ontario and Quebec Mineral Sectors were born
- Inco, Noranda, Placer Dome...



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### Modern Times:

Serra Pelada (The Naked Hill), Brazil, 1979




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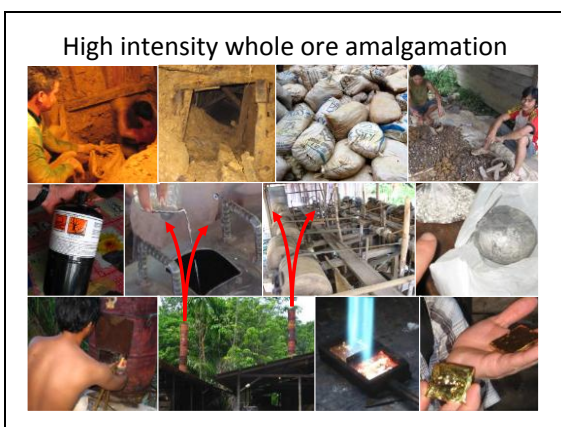
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### High intensity whole ore amalgamation



Slide 23

### High intensity whole ore amalgamation



Slide 24

### Canada, 1890s





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Slide 26

### Gold in Development / Poverty Relief

- Gold represents an excellent method of transferring wealth from rich to poor countries
- Small producers often get 70% or more of international price in remote areas - This is not true for any other product
- Gold mining is a good development opportunity
- ASGM needs to be brought into formal economy to maximize benefits – but can be a complex problem (*Hernando de Soto problem*)
- Improved practices and reputation are essential to make this happen
- **Reducing mercury use is key to realizing this opportunity, particularly in light of UNEP's forthcoming Global Mercury Treaty**

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### Scale and Economy of ASGM

- 330 tonnes of gold from 70 countries
- 10 billion USD at 900\$/ozt
- 10 million miners (3 million women and children)
- \$1000/miner - unevenly distributed
- Secondary economy, perhaps 50 million people at 50 billion USD/a
- Roughly double the population of Canada at a GDP PPP 40 times lower

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### Consumption/Emission Intensity ASGM vs LSGM

- The Formal Mining Sector out performs the ASGM sector in some areas and vice-versa
  - More energy efficient (joules/unit gold)
  - Release less greenhouse gasses (CO2e/unit gold)
  - Produce less waste rock and tailings per unit gold
  - Release 5 times more mercury
  - 40 times more mercury per unit of gold produced
  - Those who use CN use about twice as much per unit of gold
  - Do not practice waste management

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### Remaining ASGM Gold Resources

- Not well known but at least 20 years, likely much more

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Perspectives

- The breadth of society that interacts with Artisanal and Small Scale Gold Mining (ASGM) is much broader than is generally recognized
- Current ASGM production is around 12% - larger than any single producer
- Risk (reputational and operational) for LSGM (Large Scale Gold Mining ) is increasing due to ASGM

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Solutions

- Technology Transfer
- Financial Mechanisms
- Enabling Policy

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Approach to Solutions

- Profit is an important incentive for creating sustainable change in any ASGM operation.
- Asking miners to change their behaviour in a way that induces a pay cut has been universally unsuccessful
- Interventions where better practices have come along with increased profits have thrived
- **Field work is the source of innovation and progress**

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Technical Solutions

- Alternative processing:
  - Lower mercury (step 1) - **Mercury Recycling**
    - emissions control (fume hoods, retorts)
    - mercury re-activation
  - Zero mercury (step 2)
    - Gravity separation and or chemical leaching

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Alternative Processing: Concentration vs whole ore

Whole ore amalgamation replaced by concentration;  
500 times mass reduction; Au recovery of 65% => CN



Slide 36

Who can be Involved in the transition to cleaner gold?

- ASM communities and their local governments
- Multiple national government stakeholders
  - Mining
  - Environment
  - Health
  - Trade
  - Education
  - Treasury (federal gold reserves)
- Gold industry from bottom to top (producers, traders, buyers, nations heavily involved in gold mining)
- Jewellers and luxury goods market

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Questions

- Are there practical solutions to the ASGM problem and how much do those solutions cost?
- What have been some successful approaches?
- Where are the problems most severe in the world?
- Do these correspond to places companies work?
- Does work on ASGM align with other Agency priorities?
- How could involvement be tied to the development of the UNEP mercury treaty?
- What Countries should Canada consider taking a lead role developing treaty mechanisms for ASGM?

Supply chain approaches – Jewelry example  
 Presenter: Ms. Nawal Ait-Hocine, Cartier

Slide 1




**Addressing the Social and Financial Challenges of Artisanal and Small Scale Gold Mining**

**Supply chain approaches – Jewelry example**

UNEP - Geneva Briefing  
 Thursday 23 September 2010

Slide 2

**OVERVIEW : WHO IS CARTIER?**

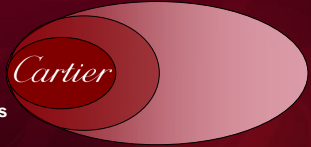


- For more than 160 years, the image of the precious
- A tradition of excellence in particular in creativity and craftsmanship
- Long-lasting creations with a patrimonial value

Slide 3

**WHAT DOES CARTIER REPRESENT?**

- Most issues associated with precious materials happen upstream of Cartier and its suppliers
- Cartier accounts for a tiny proportion of the total precious materials used ...



- ... Yet, people aspire to Cartier, a brand with broad symbolic value...
- And a leader in jewellery design
- ...that means we have a responsibility to reassure our customers of the ethical provenance of our pieces

Slide 4


« Every activity and issue connected with the precious materials supply chain is a concern for CARTIER »



Slide 5

**THE SCOPE OF OUR RESPONSABILITIES**

- Our own practices
- Those of our suppliers and our supply chain, which may have an impact on our reputation
- By extension, the practices of the entire industry, that have an impact on the reputation of jewellery products



Slide 6

**THE APPROACH CHOSEN BY CARTIER**

1. An « industry » approach, promote responsible business practices
2. Concrete action through our purchases
3. A « corporate » approach vs. A product approach



Slide 7

### THE APPROACH CHOSEN BY CARTIER

1. An « industry » approach, *promote responsible business practices*
2. Concrete action *through our purchases*
3. A « corporate » approach *vs. A product approach*



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### RESPONSIBLE JEWELLERY COUNCIL



- Since 2005
- Ethical, social, environmental
- For all companies, from mine to retail
- Worldwide
- Develop a label of good practices that anyone can use
- Anticipate new regulations
- A unique system designed by the industry
- A voluntary system

Watches and Jewellery gold, platinum and diamonds  
... future extensions: colored gemstones, silver

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### RESPONSIBLE JEWELLERY COUNCIL



- 240 members
- Adherence to a Code of practices (with a specific mining supplement) *Internal practices Impact on the supply chain*
- Members commit to be independently verified by RJC accredited auditors in order to be certified



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### THE APPROACH CHOSEN BY CARTIER

1. An « industry » approach, *promote responsible business practices*
2. Concrete action *through our purchases*
3. A « corporate » approach *vs. A product approach*



Slide 11

### BURMESE GEMSTONES

October 5, 2007: a leadership stance on Burmese gemstones

No more gemstones from Burma

Before the USA JADE Act (July 2008)


A decision in conformity with our policy

Slide 12

### REAL ISSUES

#### Artisanal gold mining

- 10-15 million people of which 30% are children
- 20 to 30 per cent of world production
- *Mercury*
- *Working conditions*
- *Conflict gold*



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**REAL ISSUES** **Large scale gold mining**

- Gigantic operations
- Cyanide
- Tailings
- Lack of community consent and benefits to the community
- Mine closure: what's left?



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**PROMOTE THE DEVELOPMENT OF EXEMPLARY PRACTICES**



Slide 15

**PROMOTE THE DEVELOPMENT OF EXEMPLARY PRACTICES**

- Cartier has signed a unique sourcing deal
- An Italian company operating in Honduras: GOLDLAKE
- An innovative company
- With an alluvial mine: EUROCANTERA



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**GOLDLAKE'S MISSION**

- Our mission is to deliver gold to the market with the assurance that at every step in the value chain we have a positive impact on the people, communities and the natural environment touched by our operations.
- We believe that in business, innovation, coupled with an ambition to make a difference in people's lives and to protect our natural world, results in benefits for all.

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**DUAL, INTEGRATED PRODUCTION**

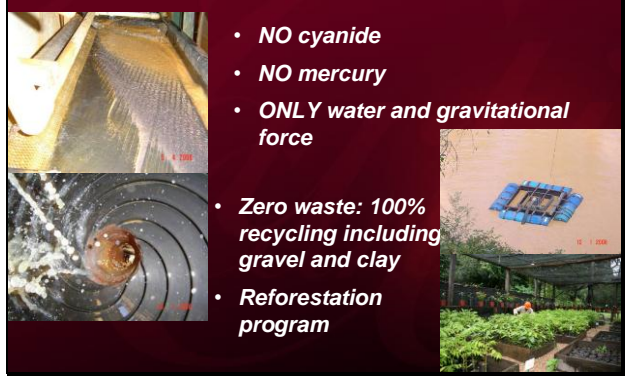
70% mining company  
30% artisanal



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**KEY POINTS: environment**

- NO cyanide
- NO mercury
- ONLY water and gravitational force
- Zero waste: 100% recycling including gravel and clay
- Reforestation program



Slide 19

**KEY POINTS: social**

- Free clinic for 8 villages
- 4000 consultations/year
- 80 km of roads to break isolation
- Disease prevention campaigns
- Equipment, training and assistance for artisan miners



Slide 20

**THE AGREEMENT**

- 3 years
- Year 1: all production
- Year 2 and 3: Cartier can buy 50% of excess production above year 1



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**WHY THIS STEP IS IMPORTANT**

**A SMALL FRACTION OF OUR GOLD SUPPLY BUT ....**

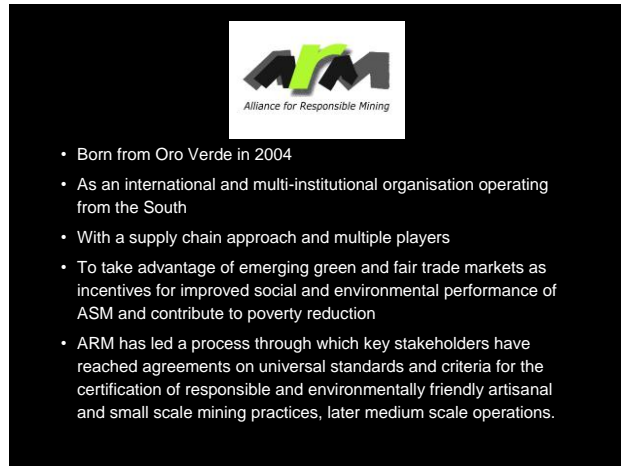
- Supports Goldlake's development - rewards leaders and forward thinkers
- A strong signal to the market that practices must change?
- An incentive to develop yet more solutions?

Gold branding – Fairtrade and Fairmined gold example  
 Presenter: Mr. Patrick Schein, President S&P Trading /  
 Executive Board Member - Alliance for Responsible Mining (ARM)

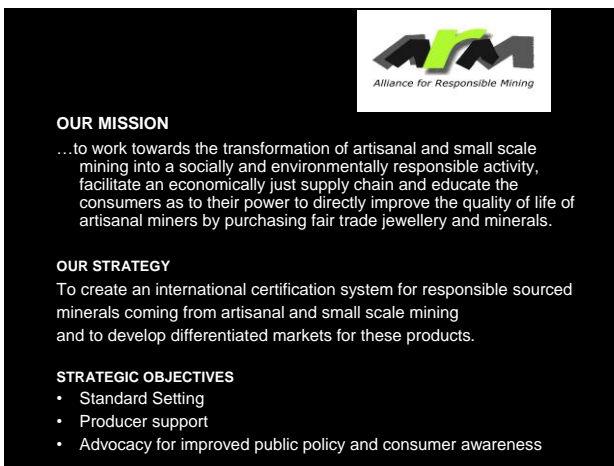
Slide 1



Slide 2



Slide 3



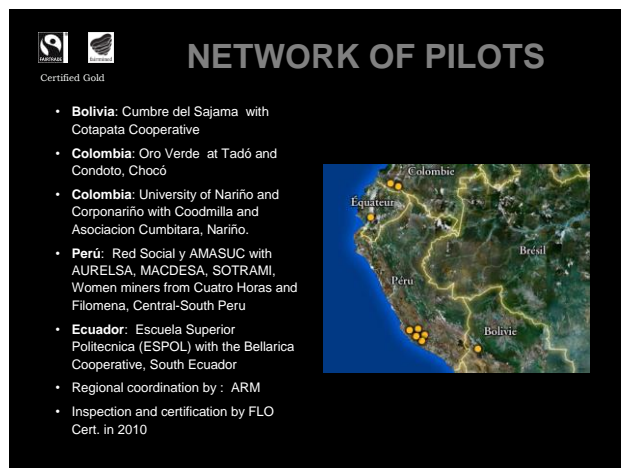
Slide 4



Slide 5



Slide 6





Slide 7

**Social Development Challenges**

- The right to be legal
- Getting organised
- Developing democratic governance
- Literacy and numeracy
- Getting women miners in the picture
- Transparency and accountability in organisations
- Political incidence



Slide 8

**Economic Development Challenges - 1**

- Strengthening **administrative capabilities**: strategic planning, risk management, accounting and democratic governance practices
- Capacity to develop an **annual plan for the use of the premium**- long term shared vision.
- Developing **economies of scale** and exporting directly
- Access to **credit and pre-financing** for purchase of Au and cleaner technology



Slide 9

**Economic Development Challenges - 2**

- Getting banks to work with ASM - **credit (formal, semi-formal and informal)**
- Getting governments to work with ASM - **enabling legislation and public policy**
- **Getting LSM to work with ASM** as part of the local community and a strategic aspect of closure planning.
- Getting professionals to work with ASM - where is the academia? in **knowledge creation, technology, organisation, business models**



Slide 10

**Labour Development Challenges**

- Informal work arrangements
- Women's and disadvantaged groups' rights
- Child labour - AIDS orphans dilemma specially in Africa
- Perception of risk - health and safety issues
- Mining rescue and equipment cost
- Social security



Slide 11

**Environmental Development Challenges**

- Access to clean technologies and efficient processing to end whole ore amalgamation
- Technological solutions to separate the Hg and Cn circuits
- Sanitation and access to drinking water
- Tailings management
- Top soil management for rehab
- Access to credit to improve efficiency of operations and get cleaner technologies
- Access to the appropriate retorts for Hg recovery
- Use of Hg by women and children



Slide 12


**Environmental requirements and Ecological Gold**

**Mercury and Cyanide:**  
miners must use safe and responsible practices for management of toxic chemicals in gold recovery and tailings, following UNEP/UNIDO guidelines  
Where possible, no mercury or cyanide should be used for gold recovery

**FT and FM Ecological GOLD:**  
No mercury or cyanide and strict ecological restoration practices  
Ecological gold is scarce because without chemicals there is a drastic reduction in gold recovery



Slide 13




**FAIRTRADE** **fairmined**

Proposition\*: Guarantees a better deal for small-scale mining communities.

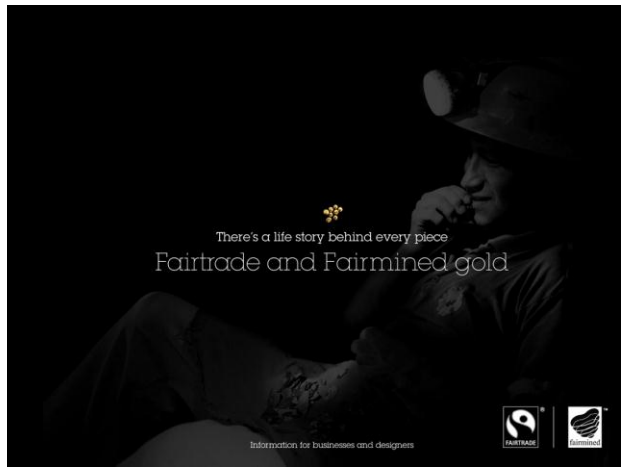
Promise: When you buy Fairtrade and Fairmined jewellery, you are supporting well managed community mines that are environmentally and socially responsible.

Benefit: Precious jewellery with a proven impact and a positive story

Reason to believe: The jewellery has a certified stamp of origin showing it's been carefully extracted from a limited number of small scale mines, so it can be traced right from the miner to the jeweler. You can access the unique story of every mining community that is 'fairtrade and fairmined' certified.




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There's a life story behind every piece

**Fairtrade and Fairmined gold**

Information for businesses and designers




Slide 15

## Passion

that's forged the world's first ethical choice for precious metals

Fairtrade and Fairmined certified gold is the world's first independent ethical certification system for gold and associated precious metals from artisanal and small-scale miners. This certification enables businesses, from designers and retailers to fabricators and distributors, to offer their customers the guarantee of a product which has been responsibly mined.



Chiganga district, Peru

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## Commitment

to actively demonstrate fair sourcing practices

With jewellery, it's the thought that counts. Research reveals that people believe buying jewellery for a special occasion holds greater value and significance if it carries the Fairtrade and Fairmined marks. It is a gesture which shows that the giver, the receiver and the business they bought the jewellery from are all committing to giving the miners a better deal.

Businesses that sell Fairtrade and Fairmined certified gold products will be at the cutting edge of industry trends. By pro-actively demonstrating their commitment to fair sourcing practices they will be acknowledged as leaders, seen to be shaping supply chains of the future by their customers, suppliers and wider stakeholders including trade bodies and government. They will be uniquely placed to fulfil the currently untapped market demand for responsibly mined gold.

An industry survey of 96 companies across 11 countries identified wedding rings, dress rings, necklaces, earrings and bracelets as consumer products with potential in this market.

\*Globescan, January 2010  
\*\*Jewellery survey: Market Report, Fairtrade Foundation, 2009



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## A future

in which miners can improve their livelihoods

Fairtrade and Fairmined gold is exclusively available from artisanal and small-scale mining organisations. Globally there are 100 million people who depend directly or indirectly on this type of mining. Artisanal and small-scale miners produce just 15% of global gold supplies yet account for 90% of labour in gold extraction. They are characterised by high levels of poverty, trapped in unfair supply chains and struggling to get a fair price for the gold they mine. Owing to the number of middlemen between the miner and exporter, once everyone takes their percentage the miner very rarely gets a fair price.

Fairtrade and Fairmined certification offers an opportunity for small-scale and artisanal miners to earn a fair price for the gold they mine, gaining dignity and rights by being involved in a recognised certification system.





Putuquesaca (artisanal mineral sorters) work outside the mine, Peru

Chiganga district, Peru

Slide 18

Fairtrade and Fairmined certification enables miners to:

- Earn their living with **dignity** by participating in a system that gives them better access to their rights
- Gain more **security** from knowing there is a minimum price for the gold they mine
- Invest the Fairtrade premium in **community development** projects such as education, health and environmental restoration
- **Empower** themselves, gaining bargaining power with the traders and more control in the supply chain by developing democratic, collective organisations
- Improve their **working conditions** through the mandatory use of protective gear and safer use of chemicals
- Address **gender equality** through creating better access to mineral sources for women

La working, Peru

Mining tools, Tado, Colombia

Slide 19

  
Certified Gold

### Next Steps & Challenges ?

- > FT & FM Gold launch Feb 2011 for: UK, Canada, Finland
- > Expansion in the 20 other countries where FLO Labelling initiatives are present with an objective of 5% of the jewelry market
- > Mining communities: expansion in LATAM and introduction in Africa and Asia

**Challenges:**

- > Mercury ban => Criminalization of its use => Is it the good way ?
- > Public Policy: get the ASGM miner into the picture : Legalization of the ASGM sector



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FAIRTRADE



fairmined™

## Fairtrade and Fairmined Gold

Thank you !



[www.communitymining.org](http://www.communitymining.org) | [www.fairtrade.net](http://www.fairtrade.net)

Government approaches at the national level

Presenter: Mr. Juan Miguel Cuna, Philippines Department of Environment & Natural Resources

Slide 1

**ASGM IN THE PHILIPPINES:  
Initiatives to Overcome Social  
and Financial Challenges**

Atty. JUAN MIGUEL T. CUNA  
Director, Environmental Management Bureau  
Department of Environment and Natural Resources  
23 September 2010, UNEP/IEH II  
Geneva, Switzerland

Slide 2

**Outline**

- Quick Context of ASGM in the Philippines
- Key Issue 1: Understanding the Magnitude of the Problem
- Key Issue 2: Identify key stakeholders and bring them together
- Key Issue 3: Mainstreaming
- Conclusion

Slide 3

**Distribution of Gold Deposits in the Philippines**

Abra	Marinduque
Agusan del Norte	Misamis Oriental
Agusan del Sur	Misamis Oriental Mountain Province
Albay	Nueva Ecija
Apayao	Nueva Vizcaya
Bataan	Occidental Mindoro
Batangas	Oriental Mindoro
Benguet	Quezon
Behol	Quirino
Bukidnon	Rizal
Cagayan	Romblon
Camarines Norte	Sorsogon
Camarines Sur	South Cotabato
Cebu	Sultan Kudarat
Compostella Valley	Surigao del Norte
Davao del Norte	Surigao del Sur
Eastern Samar	Zambales
Iloilo Sur	Zamboanga del Norte
Isabela	Zamboanga Sibugay
Kalinga	Zamboanga del Sur
Leyte	

Slide 4

**Philippine Annual Gold Production, 1997 – 2008 (in kilograms)**

Year	Total	Small-Scale	Large-Scale
1997	31,199	14,062	17,137
1998	34,038	19,859	14,179
1999	31,050	17,045	14,005
2000	36,540	21,193	15,347
2001	33,841	22,656	11,185
2002	35,848	27,993	7,855
2003	37,843	31,473	6,370
2004	35,464	29,473	5,991
2005	37,488	32,117	5,371
2006	36,141	29,361	6,780
2007	38,792	31,193	7,599
2008	35,568	28,198	7,370

Sources: U.S. Geological Survey Minerals Yearbook Mines and Geosciences Bureau

Slide 5

**The Artisanal and Small-Scale Gold Mining Industry**

- More than 30 permits issued for small-scale gold mining covering more than 400 hectares mining areas; the rest are operating without legal mining titles
- Provides employment to more than 300,000 miners including 18,000 women and children
- Comprises traditional and gold rush miners
- Supports the livelihood of about one million people

Slide 6

**Mercury Use and Emission in ASGM**

Year	Estimated Annual Mercury Release
2008	70 tons (Philippine Government estimate)
2007	5 tons from small-scale mining communities in Zamboanga del Norte and Camarines Norte (Appel, Perez)
2001	140 tons from small-scale gold mining in Northern Mindanao (DOH assessment submitted to UNEP)
Early 90s	25 tons (Greer, 1993)
1986-1988	A total of 140 tons in 3 years from 53 mining communities (Appleton et al., 1999)

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**Mercury Trading in ASGM**

- Mercury used by miners is supplied mostly by gold dealers
- Prices of mercury vary: price of mercury ranges from P6.00 per gram to P6,000 per kilo
- Some gold dealers who supply mercury either operate dental clinics or are traders of dental supplies

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**ASGM Social Concerns**

- Unregulated migration in mining areas especially in “gold rush areas” causes strain in local resources
- Land tenure and resource use conflicts
- Exploitation of workers especially minors
- Absence of social security benefits for miner-labourers

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**ASGM Financial Concerns**

- Low-priority
- Sourcing funds
- Intermittent
- Lack of Focus

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**Key Issue 1: Understanding the Issue**

- Developing a National Strategic Plan on ASGM (NSP)
- NSP provides framework
- Organize and rationalize

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**Key Issue 2: Bring Stakeholders**

- Artisanal and small-scale gold miners
- ASGM communities and adjacent villages
- Government Agencies
  - DENR-Mines & Geo-Sciences Bureau (MGB)
  - DENR-Environmental Management Bureau (EMB)
  - Local Government Units (LGUs)
  - Other government agencies
    - Department of Health (DOH)
    - National Commission on Indigenous People (NCIP)
    - Bangko Sentral ng Pilipinas (BSP)
    - Department of Labor and Employment (DOLE)
    - Department of Trade and Industry (DTI)
    - Cooperative Development Authority (CDA)

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**Key Issue 2: Bring Stakeholders**

- d. Multi-sectoral Boards (e.g. P/CMRB\*)
- e. Church
- f. NGOs and other caused-oriented groups
- g. Gold and mercury traders (including jewellers)
- h. Large-scale mining companies
- i. Research and academic institutions

\*Provincial/City Mining Regulatory Board

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**Key Issue 2: Bring Stakeholders**

- ASGM Project funding from bilateral and multilateral donors and local funding institutions
  - The World Bank
  - United Nations Industrial Development Organization (UNIDO)
  - United Nations Environment Programme (UNEP)
  - Geological Survey of Denmark and Greenland (GEUS)
  - United States Agency for International Development (USAID)
- Implementation of Quick Start Programme (QSP) for Artisanal and Small-scale Gold Mining (ASGM) under UNEP

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**Key Issue 3: Mainstreaming**

- ASGM Conferences, Meetings and Consultations
  - March 2007 : Forum on Small-scale Mining in the Philippines, Makati City
  - June 2005: Community and State Interests in Small-Scale Mining - Sharing Experiences from the Asia-Pacific Region, Manila
  - March 2004 : International symposium on the diversity of mining and sustainable local development: A Meeting to Study the Business Practices of Small-scale Gold Mining in Benguet, Philippines, Baguio City.
  - Benguet Federation of Small-scale Miners Annual Mining Congress

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**Key Issue 3: Mainstreaming**

(Continued)

- Inception Meeting – Jan. 19-21, 2010
- ASGM Global Forum
- NSP Plan:
  - ✓ Approach from development perspective
  - ✓ Popularize the issue - targetted IEC Campaign
  - ✓ Focus on policymakers

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**Conclusion**

- ✓ Work in progress
- ✓ No Silver Bullets
- ✓ Immediate Actions Needed

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**Thank You.**