

SUPPORTED BY:



Stakeholders Platform Meeting (Zoom)

'Improving Environmental Management in the Mining Sector of Suriname with Emphasis on Artisanal and Small- Scale Goldmining' (EMSAGS) - Project

Date: 06 July 2022

Time: 10:00 a.m. – 12:00 p.m.

Location: Courtyard by Marriott

Participants

The SP meeting was attended by representatives of:

- Ministries,
- Indigenous and Tribal peoples,
- Private sector,
- Small and large-scale mining organizations,
- NGOs, and
- Anton de Kom University.

The opening was performed by the Project Coordinator, Mrs. S. Bihari. Three presentations were given by respectively the Project Coordinator, Newmont's representative, Mr. W. Wielson and the UNDP's Senior Technical Advisor TSA, Mr. M. Flores.



Agenda

AGENDA	
9:30 – 10:00 a.m.	Registration
10:00 – 10:05	Welcome
10:05 – 10:15	Opening : Permanent Secretary Mining, Ministry of Natural Resources, Mrs. P. Simons
10:15 – 10:45	Status Update EMSAGS Project – By: Project Coordinator, Sandra Bihari
10:45 – 11:15	Presentation ASM strategy Newmont By: Newmont Suriname, LLC
11:15 – 11:45	Targeted Scenario Analysis (TSA) – (Online Presentation) By: Marlon Flores (UNDP)
11:45 – 11:50	Recap and Next meeting
11:50 – 12:00	Closing – Acting General Director NIMOS, Mr. C. Nelom
12:00 p.m.	Lunch

1. Welcome and Opening

The Project Coordinator, Ms. S. Bihari, welcomes the participants at 10:00 and informs that due to unforeseen circumstances, the Director of Mining is unable to open the meeting. The Project Coordinator officially opens the meeting.

2. Presentation 1: Status Update EMSAGS Project

In this presentation the Project Coordinator discusses the:

- Project organization structure,
- Role of the Stakeholder Platform,
- Project Outcomes and activities,
- Goal of the MTECs,
- Project status as of June 2022
- Launch of the Project website: www.emsags.org



See annex 1 for the presentation.

No.	Questions	Answers
1.	<p>Artisanal Gold Council – Marieke Heemskerk: The project started three years ago. Which specific actions have taken place in the interior since then? Which activities will be carried out in the short term?</p>	<p>Project Coordinator: There is indeed a backlog in the project. Some of the reasons for this as indicated in our Midterm Review are:</p> <ul style="list-style-type: none"> • stagnation in attracting expertise for the project, • due to the COVID-19 pandemic, no activities performed in the interior for two years. <p>At the beginning of 2022, a start was made to attract a number of crucial consultants to, among other things, take on stakeholder engagement, make a training needs assessment, identify locations and technology for the demo sites. By hiring these consultants, we will be able to further set out the next steps of the project.</p>
2.	<p>IAMGOLD/ Rosebel Gold Mines – Marijke Agwense: what is the target date for operationalization of the MTECs?</p>	<p>Project Coordinator: According to the timeline indicated in the prodoc, the three MTECs should already have been operational. However, taking into account the backlog, the PMU aims to open at least one MTEC in Brokopondo this year.</p>



<p>3.</p>	<p>Newmont - Winston Wilson:</p> <ul style="list-style-type: none"> • The technology has to match the geological structure of the area where the mining takes place and the benefits also have to be explained to the small-scale miners. How does EMSAGS deal with this? • Currently there are so many environmentally friendly mining initiatives being carried out. Will these initiatives be coordinated by a central organization so that no duplication occurs? 	<p>Project Coordinator:</p> <ul style="list-style-type: none"> • The success of the project depends on the technology that will be identified and supported by the small-scale miners. We are now in discussion with WWF-ARM, who will test the technology in consultation with the small-scale miners at various locations to see to what extent it is supported. If the miners don't accept the technology, there's no point in introducing it, because nobody's going to use it. It must be a technology that offers advantages and the ROI must be enough to convince the miners to make the switch. • The various initiatives will have to be managed by the government. The government is busy defining the tasks and responsibilities of the Minerals Institute, and this could possibly also become
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		one of the tasks of the Institute.
4.	<p>IAMGOLD/ Rosebel Gold Mines - Michiel Raafenberg:</p> <p>If the small-scale miners agree with the technology, they will have to make investments to purchase the equipment. Does the project offer financing options for this?</p>	<p>Project Coordinator:</p> <p>Within the MTEC there will be a workshop where certain equipment can be maintained, repaired or replaced at a reduced price. Also, the MTEC can facilitate the miners in the cooperative purchase of equipment. This will be further elaborated when the MTEC is operational.</p>
5.	<p>Suriname Business Forum - Marion Stekkel:</p> <p>The MTEC focuses more on the technical skills of the miners. Will training in soft skills such as work ethic, problem solving and leadership skills also offered? The miners also need these skills to elevate their business activities.</p>	<p>Project Coordinator:</p> <p>Soft skills training will also be part of the training package.</p>

3. Presentation 2: ASM Strategie Newmont

In this presentation, Newmont's representative, Mr. W. Wielson, gives an overview of the various initiatives that are carried out by Newmont in the areas where the small-scale miners are active. For more information please contact Mr. Wielson (see info in the registration list).



4. Presentation 3: Targeted Scenario Analysis (TSA)

In this presentation, the UNDP Senior Technical Advisor TSA, Mr. M. Flores, explains:

- What the TSA is,
- TSA's 5 Step approach, including results from the small-scale Mining Sector TSA, Ecuador (2020),
- TSA Value Added,
- UNDP's TSA Portfolio.

See annex 2 for the presentation.

No.	Questions	Answers
1.	<p>WWF Suriname – David Singh:</p> <p>How did you deal with confounding factors such as legality issues in the TSA analysis in Ecuador between the business as usual and responsible mining. In Suriname, the ASGM sector is mostly unlawful, while it may be legitimate and the desire with responsible mining is to also regulate the sector.</p>	<p>Marlon Flores:</p> <p>There is a level of uncertainty in the economic projections when we apply each of the indicators that have been chosen. There are different ways of dealing with uncertainty, such as applying discount rates to deal with fluctuations in price changes and cost variations overtime. In general, the methodology is very clear about clarifying the process how uncertainty is dealt with in each scenario.</p>



5. Recap and next meeting

The Project Coordinator proposes to have the next meeting mid-October. SP members are welcome to propose agenda items for the next meeting.

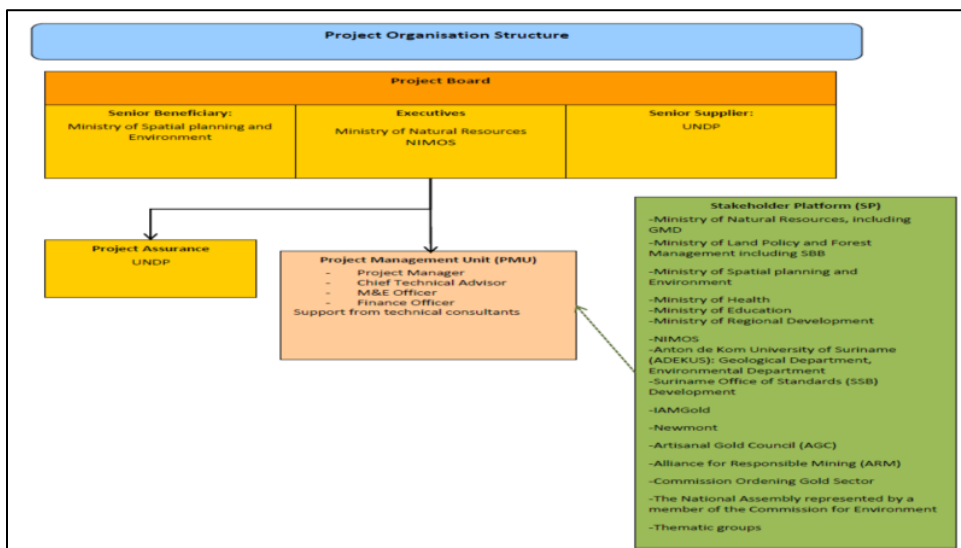
A report of the meeting, including the presentations, will be shared with the members of the SP. The report and presentations will also be shared on the EMSAGS website.

6. Closing

In his closing remarks, the Director of NIMOS, Mr. C. Nelom, reiterates that the Stakeholders Platform is here to discuss issues related to a sustainable small scale mining sector. Stakeholders may propose agenda items and if there are projects, they can be shared with other stakeholders during the SP meetings. The Director thanks the attendees for their participation and officially closes the meeting.



Annex 1: Presentation Status Update EMSAGS Project







STAKEHOLDER PLATFORM - VERTEGENWOORDIGERS

SUPPORTED BY:


- Ministerie van Natuurlijke Hulpbronnen/ Geologische Mijnbouwkundige Dienst
- Ministerie van Ruimtelijke Ordening en Milieu
- Nationaal Instituut voor Milieu en Ontwikkeling in Suriname (NIMOS)
- Ministerie van Volksgezondheid
- Ministerie van Onderwijs, Wetenschap en Cultuur
- Ministerie van Regionale Ontwikkeling & Sport
- Stichting Bosbeheer en Bostoezicht (SBB)

- Anton de Kom Universiteit van Suriname, Studierichting Milieu + Studierichting Geologie
- Suriname Standaarden Bureau (SSB)

- IAMGOLD
- Newmont

- Artisanal Gold Council (AGC)
- Alliance for Responsible Mining (ARM)
- Commission Ordening Goud Sector (OGS)
- De Nationale Assemblée, vertegenwoordigd door een lid van de Milieu Commissie
- Thematische groepen (see next slide)



STAKEHOLDER PLATFORM - VERTEGENWOORDIGERS

SUPPORTED BY:


Thematische Groepen:

- Milieu: WWF; CI
- Spatial Planning: SPASU
- Mijnbouw:
 - Paamaka: Associatie SSM Paamaka
 - Brokopondo: Makambo, Camp Mining
 - Stichting Houders Mijnbouwrechten (SHMR)
- Inheemse- en Tribale Volken: KAMPOS; VIDS; OIS
- Industry: VSB; SBF,



ROL STAKEHOLDER PLATFORM (1)



Algemeen: het SP zal het PB en de PMU **ondersteunen** bij specifieke technische zaken op nationaal niveau bij de projectuitvoering.

Kernactiviteiten:

- een forum bieden voor stakeholderconsultatie en informatie-uitwisseling;
- mede-beoordelen van de voortgang van het EMSAGS Project & -indien relevant- adviseren over projectbijstelling;
- kan adviseren over specifieke acties m.b.t. sociaal- economische, milieu- en gender gerelateerde projectactiviteiten;
- Geven van technisch advies voor engagement met gemeenschappen, in het bijzonder gemeenschappen rond mijngebieden en associaties van mijnbouwers en andere stakeholders;
- Proactief zaken betrekking hebbende op safeguards (FPIC) in overweging nemen & adviseren over preventieve of mitigerende maatregelen;



ROL STAKEHOLDER PLATFORM (2)



- mede-beoordelen van documenten ontwikkeld binnen het project;
- ondersteunen met bevordering van de opschaling van de projectresultaten door verspreiding onder relevante personen en/of organisaties;
- kan adviseren over communicatie- en awareness activiteiten;
- ondersteuning geven aan het bevorderen van partnerschappen met relevante instellingen/ organisaties voor informatie-uitwisseling en grotere projectimpact; &
- Participeren in activiteiten m.b.t. kennis- en informatie-uitwisseling.



Suriname en het Minamataverdrag



- Minamataverdrag inzake kwik: in 2017 gesloten om het milieu en de gezondheid van de mens te beschermen tegen de schadelijke gevolgen van kwik
- Dit verdrag is een internationale set voorschriften voor samenwerking en maatregelen om het gebruik van kwik en kwikverbindingen in lucht, water en bodem te beheersen en te verminderen.
- Suriname heeft zich in 2018 aangesloten bij dit verdrag en is daardoor verplicht maatregelen te treffen om kwikverontreiniging tegen te gaan, met name in de kleinschalige goudsector waar dit probleem het grootst is.
- Als eerste stap is een Nationaal Actieplan (NAP) ontwikkeld waarin wordt aangegeven op welke manier Suriname invulling zal geven aan het Minamata verdrag.
- Het streven is om het kwikgebruik in de kleinschalige goudsector met tenminste de helft terug te brengen in 2032.



PROJECTDOELSTELLING




- Verbeteren van het milieumanagement van de mijnbouw in Suriname, met name in de kleinschalige goudmijnbouw.




- Stimuleren van milieuverantwoorde mijnbouwtechnologie.







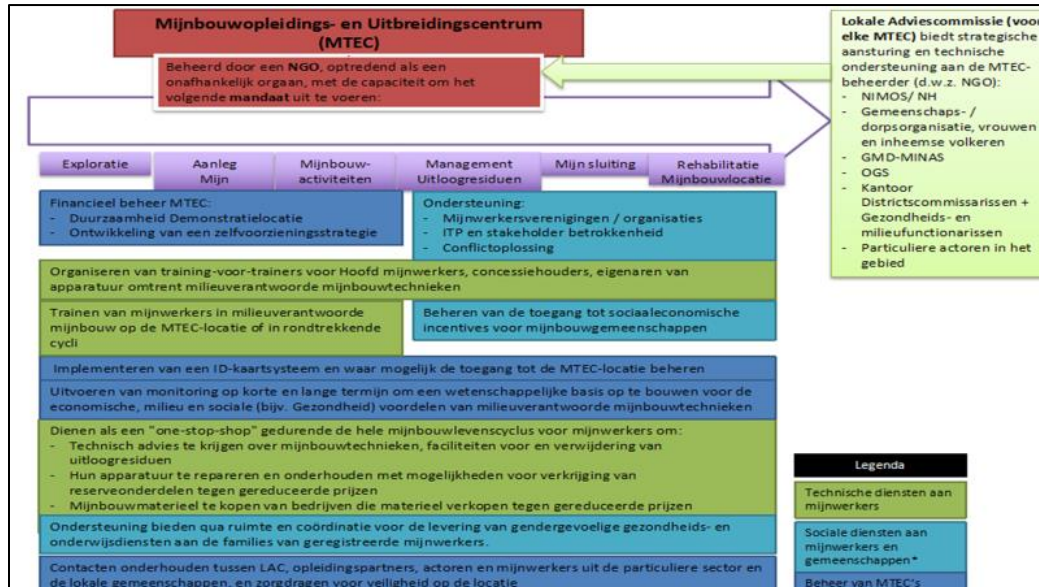
Project Outcomes

SUPPORTED BY:





- Versterking van institutionele en technische capaciteit van stakeholders.
- Versterking van overheidsbeleid en planning voor beheer van de milieu effecten van de kleinschalige goudwinning.
- Introduceren en stimuleren van milieuverantwoorde mijnbouwtechnologie.
- Kennisuitwisseling over milieuverantwoorde mijnbouwtechnologie op nationaal en regionaal niveau.

 SUPPORTED BY: 		Projectactiviteiten	
Outcome 1	Outcome 2	Outcome 3	Outcome 4
Versterking van institutionele en technische capaciteit van stakeholders.	Versterking van overheidsbeleid en planning voor beheer van de milieu effecten van de kleinschalige goudwinning	Introduceren en stimuleren van milieuverantwoorde mijnbouwtechnologie	Kennisuitwisseling over milieuverantwoorde mijnbouwtechnologie op nationaal en regionaal niveau
<ul style="list-style-type: none"> Trainings Needs Assessment Ontwikkelen van trainingsmateriaal Training van alle relevante stakeholders Monitoring van ASGM impacts op bossen en biodiversiteit 	<ul style="list-style-type: none"> Nationale stakeholderconsultaties ihkv herziening mijnbouwwetgeving Assessment en ontwikkeling van uitvoeringsbesluiten ihkv de mijnbouwwet Monitoring van naleving mijnbouwrechten Opzetten structuur voor de monitoring en controle op de naleving van milieurichtlijnen door de LSM Ontwikkelen mijnbouwstrategie en actieplan. 	<ul style="list-style-type: none"> Opzet van "Mining Training & Extension Centers (MTECs) Demonstratie van milieuverantwoorde mijnbouwtechnologie Training en verspreiding van informatie 	<ul style="list-style-type: none"> Communicatie en awareness Monitoring en Evaluatie Netwerken en verspreiden van opgedane kennis nationaal/regionaal





 <h2 style="margin-left: 100px;">Projectstatus</h2> <div style="text-align: right;"> <small>SUPPORTED BY:</small>  </div>	
Outcome 1 Versterking van institutionele en technische capaciteit van stakeholders	Outcome 2 Versterking van overheidsbeleid en planning voor beheer van de milieu effecten van de kleinschalige goudwinning
<ul style="list-style-type: none"> Consultants aangetrokken voor Trainings Needs Assessment en ontwikkelen van trainingmateriaal Q3 + Q4: Aanvang training van relevante stakeholders Werkplan in voorbereiding voor carbon stock assessment en biodiversity assessment met SBB, Herbarium en Zoologische Collectie ihkv Monitoring van ASGM impacts op bossen en biodiversiteit 	<ul style="list-style-type: none"> Q3 2022: start nationale stakeholderconsultaties ihkv herziening mijnbouwwetgeving Q4: Assessment en ontwikkeling van uitvoeringsbesluiten ihkv de mijnbouwwet Q2- Q4: Capaciteitsversterking monitoring van naleving mijnbouwrechten Q3 – Q4: Opzetten structuur voor de monitoring en controle op de naleving van milieuriichtlijnen door de LSM Q3: TOR voor ontwikkelen mijnbouwstrategie en actieplan.

 <h2 style="margin-left: 100px;">Project status</h2> <div style="text-align: right;"> <small>SUPPORTED BY:</small>  </div>	
Outcome 3: Introduceren en stimuleren van milieuverantwoorde mijnbouwtechnologie	
<ul style="list-style-type: none"> IHKV opzet van “Mining Training & Extension Centers (MTECs): assessment van locaties (Grassalco te Brokopondo/ SMMP te Snesi Kondre) TAV opzet MTECs + demo-sites voor demonstratie van milieuverantwoorde mijnbouwtechnologie: discussies met WWF/ARM voor partnerschap. 	



Project status

Outcome 4: Kennisuitwisseling milieuverantwoorde mijnbouwtechnologie op national en regional niveau

- Awareness raising strategy
- Communicatiemateriaal ontwikkeld (nieuwsartikelen, posters, radioprogramma's, brochures etc).
- Broadcasting: Q2 – Q4
- Heractivering Stakeholder Platform
- Website

Launch url is <https://emsags.org/launch>

Website is <https://emsags.org/>

PROJECT WEBSITE

SUPPORTED BY:



 **EMSAGS**
LOBI YU LIBI, WROKO KRIN GOWTU



Project Management Unit
EMSAGS Project
Mr. J. Lachmonstraat 93bv



**LOBI YU LIBI
WROKO KRIN GOWTU**

SUPPORTED BY:



Annex 2: Presentation: Targeted Scenario Analysis



Food
Agriculture and
Commodity
Systems
FACS

**Improving Environmental Management in the Mining Sector of
Suriname, Artisanal and Small-scale Gold Mining (EMSAGS) Project,
Suriname, July 6, 2022**



Targeted Scenario Analysis (TSA):
A practical approach for capturing, presenting and converting
sector-centered economic data into sustainable sector development policy

**CASE STUDY: MAKING THE CASE FOR POLICY REFORM AND INVESTMENT IN ECOSYSTEMS MANAGEMENT
IN THE ARTISIAN AND SMALL-SCALE GOLD MINING SECTOR IN ECUADOR**

Marlon Flores, Senior Technical Advisor TSA, FACS - UNDP



Content

- What is TSA
- TSA's 5 Step approach, including results from the Small-scale Mining Sector TSA, Ecuador (2020).
- TSA Value Added
- UNDP's TSA Portfolio overview

What is Targeted Scenario Analysis (TSA)

Is an answer to a public or private decision-maker's question:

Is there a compelling reason to reform a particular policy or business management approach that ensures the long-term function of the ecosystem services that sustain sector productivity?



What is Targeted Scenario Analysis (TSA)

TSA is a balanced presentation of evidence, weighting the pros and cons of

- continuing with business as usual (BAU) or
- following a sustainable development path in which ecosystems are more effectively managed (SEM).

A TSA is conducted for

- a particular productive sector, and
- with a specific decision maker in mind (government official or business executives)

Five Steps of a TSA

1. Defining the client, purpose and scope of TSA

1. Decision maker: Minister of Mining and/or Minister of Environment. TSA will provide evidence-based sector economic data to support informed policy reform to improve ASGM.

2. Defining BAU baseline & SEM intervention

2. Determining BAU baseline under existing unsustainable sectorial production practices and the SEM intervention that may be used to change the status quo.

3. Selecting criteria & indicators

3. Choosing financial and economic criteria that are used as indicators to compare BAU and SEM scenarios.

4. Constructing BAU/SEM Scenarios

4. Projecting outcomes by estimating how ecosystem services/productivity/net benefits will be affected, considering functional linkages between indicators, and projecting changes caused by BAU and SEM interventions.

5. Making evidence-based recommendations

5. Prepare recommendations based on scenarios analysis, and support decision makers in choosing among the **policy pathways** by reviewing the scenario projections, the magnitude of the outcomes, and the assessment of the criteria.



Step 1: Defining the client and scope of the TSA

- Identify the **sector** (e.g., ASGM)
- identify the key **decision maker** (s) and her/his objectives for the analysis;
- together with this decision maker, refine the targeted **policy reform or management question**;
- together with the decision maker, define the **scope of the analysis**, including spatial scale, time frame and indicators, regulatory scale; and
- assess and **verify available data**.

Step 2 (a): Defining BAU requires 3 related questions

1. What are the current policies, actions and technologies being used in ASGM under BAU?
2. What are the reason current ASGM practices are leading to ecosystem degradation and loss of productivity output?
3. What technical, non-ecosystem-based strategies are being used by relevant actors to address the negative impacts of BAU?



Step 2 (b): Defining SEM requires 3 related questions

1. What package of policy reforms (policy mix), actions and technologies can be used to change the status quo and reduce and reverse the effects of ASGM under BAU on the relevant ecosystems/production systems?
2. What will be the consequences associated with adopting the SEM intervention?
3. What are the investment costs associated with shifting to the SEM intervention?

Step 3: Selecting criteria and indicators

Criteria	Indicators
Financial	<ul style="list-style-type: none"> • Change in productivity • Annual revenues, net profits • Costs, investment costs • Debt-to-capital ratio • Cost of natural resources degradation
Economic	<ul style="list-style-type: none"> • Consumer surplus (total willingness to pay) • Producer surplus • Marginal external costs • Net benefits • Hard currency flows • Tax revenue to Treasury
Employment	<ul style="list-style-type: none"> • Number of newly employed people • Salary levels • Ratio of formal versus informal employment • Number of part-time jobs • Ratio of high-paying versus low-paying jobs
Equity and fairness	<ul style="list-style-type: none"> • Ratio of salaries by gender • Ratio of benefits by ethnic group • Employment by demographic category



Step 3: Selecting criteria and indicators

TSA example: Artesian and Small-scale Gold Mining in Ecuador

1. Total annual net revenue
2. Net revenue per metric ton of raw material (extracted and processed)
3. Mercury discharges to the environment
4. Economic impact linked to mercury pollution
5. Income to treasury (royalties) from new processing plants

Step 4: Constructing BAU/SEM Scenarios

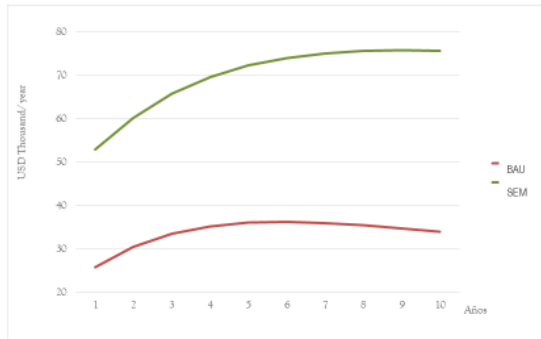
Constructing credible scenarios of the projected outcomes of implementing the BAU and SEM interventions involves three basic steps:

1. Estimate how ecosystem services will be affected by the BAU and SEM interventions over time;
2. Consider how these changes in ecosystem services affect the chosen indicators (for example, between water pollution and net profits); and
3. Construct projections of the changes in the chosen indicators that are due to changes in the ecosystem services which were caused by the BAU and SEM interventions.



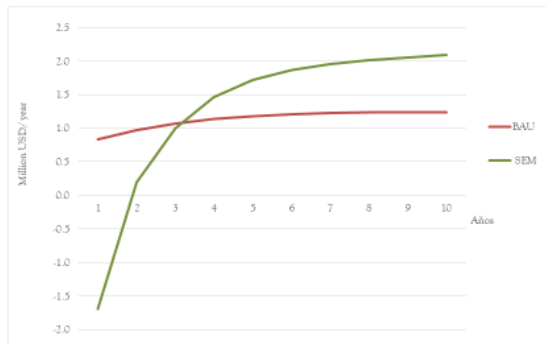
Step 4: Constructing BAU/SEM Scenarios

TSA: Artesian and Small-scale Gold Mining in Ecuador, 2020
 Indicator: Annual revenue per ton of raw material for small miners
 SEM (Responsible Mining Program -RMP)



Step 4: Constructing BAU/SEM Scenarios.

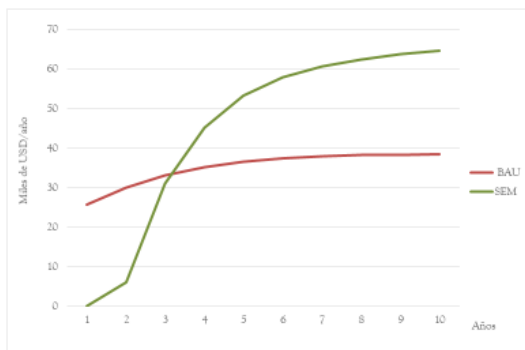
TSA: Artesian and Small-scale Gold Mining in Ecuador, 2020
 Indicator: Annual revenue per ton of processing plants





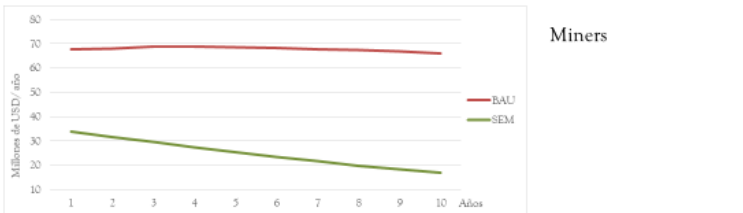
Step 4: Constructing BAU/SEM Scenarios.

TSA: Artesian and Small-scale Gold Mining in Ecuador, 2020
Indicator: Royalties from processing plants



Step 4: Constructing BAU/SEM Scenarios.

TSA: Artesian and Small-scale Gold Mining in Ecuador, 2020
Indicator: Economic impact of reducing mercury discharges: miners / processing plants



Processing plants





Step 5: Making evidence-based policy or management recommendations

Some decision makers may seek the analyst's opinion or direct recommendations based on the TSA results.

Some may encourage debate among their advisors in support of one policy intervention over another.

But others may prefer a more "factual" presentation of the results and they may come with their own conclusions.

In any cases, the TSA should present the results of all selected indicators with their respective policy links

Step 5: Findings and selected recommendations (ASGM TSA, Ecuador)

1. RMP is the most convenient path to achieve the National Mining Policy's objectives.
2. Moving the separation process to updated processing plants is key to achieve RMP.
3. On average, at the end of the ten years, the RMP model will give **small miners** USD 40,000 more per year, USD 25,000 more per year for medium miners, USD 134,000 more per year for the mineral processing plants, and USD 65,000 per processing plant per year as royalties for the State.
4. The RMP proposes that the Central Bank of Ecuador increases its annual purchasing of gold. Therefore, RMP can increase gold reserves. Estimated at USD 4,000,000 per year for each processing plant.
5. RMP will reduce mercury use by 80% in ASGM, the cost of avoiding contamination could reach USD 80,000,000 per year.



Step 5: Findings and selected recommendations (ASGM TSA, Ecuador)

6. Engage processing plants in shifting to RMP through a RMP program, including incentives such as tax breaks, preferential credit and co-financing (from public and international cooperation sources).
7. Expanding the Central Bank's gold purchasing program. This program will help provide security for the value chain, apply traceability measures, and follow sound production standards.
8. Enhance the current legal and regulatory framework by introducing secondary norms to make it possible to reinvest royalties, taxes, and fees from mining activities.
9. Establish a coordination mechanism, led by the Ministry of Mining, and development of a pilot program for shifting to RMP to accelerate achieving the National Public Mining Policy's objectives; and facilitate scaling up to the national level.

TSA's Value Added

Country-level client (government/private sector):

- Improve sector policy design and fiscal reform.
- Increase quantity and quality of public and private investment in SDGs, CC mitigation, and reduction of CO₂ emissions.
- Increase sustainable sector productivity and long-term profitability.
- Increase GDP at the sector and national levels.
- Increase direct net benefits for sector producers and value-chain stakeholders.
- Increase other financial, economic, social, and environmental benefits.



TSA's Value Added

Institutional: TSAs increment UNDP and its implementing partners' credibility vis-a-vis government partners, private sector, and producers.

Technical capacity: TSA combines the capacity of UNDP, high-profile companies specializing in TSA valuation, and academia.

Funding donor: Improves cost-effectiveness of the interventions, and their support to achieving SDGs, and new commitments to tackle climate change.

UNDP's TSA Portfolio 2022 - 2024

Colombia	Small scale mining
Cuba (Five TSA)	Multiple sectors: Livestock; Sustainable tourism; Protected Areas; Coastal Management-Climate Chance; Non-renewable Energy; and Sustainable fisheries.
Indonesia (Five TSA)	Sustainable agriculture – Palm oil (five regions: Aceh, N. Sumatera, W. Kalimantan, W. Papua and S. Sulawesi)
Dominica Republic	Deforestation-free agriculture sector (Coffee/Cacao)
Peru	Deforestation-free livestock sector
Peru	Sustainable agriculture - Coffee sector
PNG	Sustainable forest management/agriculture – Palm oil sector
Suriname	Phasing out mercury in small-scale gold mining sector
Central America Dry Corridor (Regional)	Water resources management in high migration corridors.



UNDP's TSA Portfolio 2019 - 2021

Table 2: TSA completed in 2019-2021 (8 TSA)

Country	Sector
Colombia	Deforestation-free livestock/conservation of jaguar habitat
Ecuador	Phasing out mercury in artisanal and small-scale Mining
Kazakhstan	Sustainable forestry/Forest management
Liberia	High value conservation forest and deforestation-free palm oil
Paraguay	Deforestation-free livestock and high value conservation forest
Peru	Deforestation-free cacao
Peru	Deforestation-free palm oil
Thailand	Finance to combat and eliminate Illegal Wildlife Trade

UNDP's TSA Portfolio before 2019

Table 1: Pilot Targeted Scenario Analysis, before 2019 (6 TSA)

Country	Sector
Azerbaijan	Sustainable water management and hydropower
Costa Rica	Sustainable pineapple production
Guatemala	Sustainable fisheries
Mongolia	Protected areas and sustainable use of natural resources in multiple productive sectors
Republic of Georgia	Protected areas and sustainable use of natural resources in multiple productive sectors
Romania	Protected areas and sustainable use of natural resources in multiple productive sectors



For more information on policy reform and TSA please contact:
Marlon Flores
marlon.flores@undp.org

<https://www.undp.org/greencommodities/targeted-scenario-analysis>

<https://www.undp.org/publications/targeted-scenario-analysis>

TARGETED SCENARIO ANALYSIS
A NEW APPROACH TO CAPTURING AND PRESENTING ECOSYSTEM SERVICE VALUES FOR DECISION-MAKING

TEA STUDY ON THE ARTISANAL AND SMALL-SCALE GOLD MINING SECTOR IN TIMOR-LESTE

KEY FACTS

- The estimated total economic benefits of the TEA study are estimated at US\$ 1.2 billion per year.
- The TEA study is the first of its kind in Timor-Leste, providing a comprehensive assessment of the economic, social, and environmental impacts of the artisanal and small-scale gold mining sector.
- The TEA study provides a clear and concise overview of the sector, highlighting the key challenges and opportunities for the future.