

MINING IMPACT CALCULATOR

Analyzing the socio-economic costs of ASGM in real time

B2G
B2C



An accessible, online economic valuation tool that calculates and quantifies the social and environmental costs of artisanal and small-scale gold mining (ASGM) in real-time.

The Mining Impact Calculator helps environmental prosecutors impose sanctions and/or fines to prevent and/or mitigate the environmental damages and economic losses caused by illegal mining. In the long-term, this action will disincentivize illegal ASGM and incentivize the adoption of cleaner technologies.

MONITORING AND ACTIONABLE DATA

- Washington D.C., USA
- Conservation Strategy Fund (CSF)
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Problem

There is very little data on the economic costs of ASGM and no standardized approach to evaluate such costs. Each year countries lose economic value and suffer environmental and social costs to illegal ASGM. The United Nations estimates that Ecuador suffers losses of approximately USD\$300M from illegal mining. Government authorities and environmental prosecutors lack the data and understanding of socio-environmental costs to impose appropriate sanctions and fines to prevent and mitigate crime.

Solution

An accessible, online economic valuation tool that allows the social and environmental costs of ASGM to be calculated and quantified in real-time. Through the applications of key determinants (peer-reviewed literature, expert consultation, and satellite and secondary data), the tool assesses deforestation, soil degradation, and health impacts related to mercury contamination from ASGM.

Market

- Governments, public prosecutors and environmental authorities' from +80 countries where ASGM exists.
- NGOs and private organizations interested in understanding the economic costs of ASGM.



Mining Impact Calculator has been adapted to the Ecuadorian context with information from the provinces of Sucumbios, Napo, Morona Santiago and Zamora Chinchipe) through their participation in the Amazon CoLab

Company

CSF sustains natural ecosystems and human communities through strategies powered by conservation economics. It has offices in the United States, Indonesia, Bolivia, Brazil, and Peru.

The Mining Impact Calculator was originally developed for the Brazilian market, and helped determine the average value of socio-environmental damage from illegal mining in indigenous territories, amounting to USD +2.2 M.

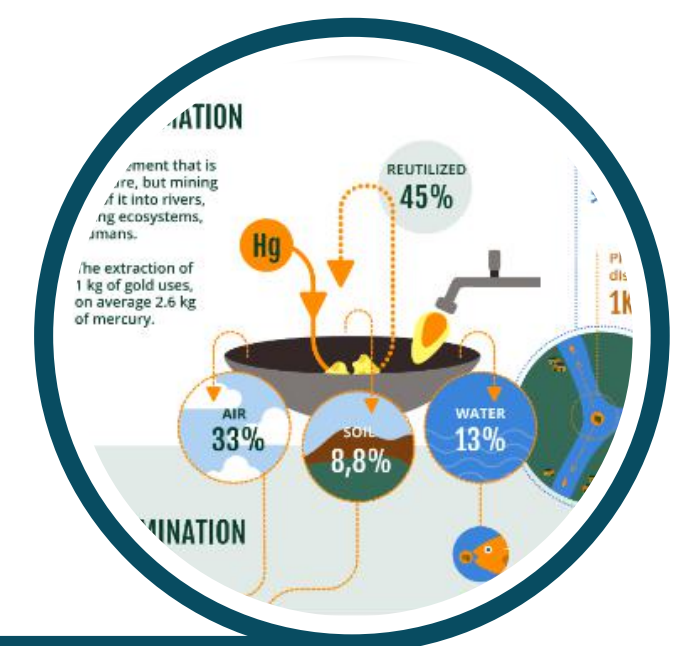
Competitive Landscape

The first tool of its kind in the world, pulling together dispersed literature, research and data on ASGM economic impacts into one robust model and easy-to-use online tool. Competitors are few at the moment as economic thinking is still not an integral part of strategies to address ASGM.

Future Development

In the short term, the team aims to achieve a formal and robust adoption of the tool by Ecuadorian government authorities.

In the long-term, the team proposes to integrate a tool across the Amazon basin and incorporate the economic costs and impacts of other environmental crimes such as illegal logging, wildlife and timber trafficking.



The Artisanal Mining Grand Challenge: The Amazon is implemented by Conservation X Labs in partnership with the United States Agency for International Development (USAID), the Gordon and Betty Moore Foundation, Microsoft, and Esri. The Challenge seeks to advance innovation solutions that make artisanal and small scale mining more environmentally responsible and socially equitable.

www.artisanalminingchallenge.com

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