

PROJECT INAMBARI

Early alert system for tropical forest mining

B2B



An open mapping platform to detect artisanal and small-scale mining with an accuracy of 94%, using satellite imagery and automatic detection algorithms.

Thanks to its model, government regulators, communities, and conservation groups can detect illegal mining activity in a timely manner, and thus protect Amazon tropical forests more efficiently and effectively.

This B2B solution uses satellite radar imagery with information from the European Space Agency's Sentinel-1 and Sentinel-2 satellites; computer models for early alerts of mining activity; and synthetic aperture radar technology that penetrates clouds to provide a continuous stream of input data.

MONITORING AND ACTIONABLE DATA

 United States

 SkyTruth

 2001 <

 15

 Bjorn Bergman
bjorn@skytruth.org

www.skytruth.com

Problem

Conservation groups, government regulators, and local community leaders **lack the resources to routinely survey remote areas for environmentally damaging illegal mining**. As a consequence countries face costs of USD 3M* to completely recover a single hectare (2.47 acres) degraded by mercury and cyanide from artisanal and small-scale gold mining (ASGM).

*SERFOR (Peruvian Forest Service)

Solution

- A free open mapping platform integrating mining detection and analysis (measuring, annotation, & sharing).
- A mining activity detection model with an average accuracy of 94%.
- Daily satellite images, to access updated information.

Market

Local or international funding agencies, public or private, interested in preventing or mitigating illegal mining activity in tropical forests at high frequency.

Users

Government regulators, communities, and conservation groups who want to detect illegal mining activity in a timely manner, and thus protect tropical forests.



Competitive Landscape

Project Inambari **offers a unique set of high resolution imagery sources and analysis tools not available on any other open monitoring platform**. It is also unique in specifically identifying landscape disturbance related to mining, which was identified by SERNANP as their primary conservation management concern in the region.

Funding Needs

Seeking \$250K in funding to:

- Automate the Inambari pipeline to create a live monitoring map with continuous updates of mining activity in the Amazon.
- Scale operations to support monitoring of additional protected areas in the region.
- Deliver training to park rangers and other forest monitors to ensure a seamless user experience.

Project Inambari validated its technology with Peru's National Service of Natural Areas Protected by the State (SERNANP) at the Amaraeri Communal Reserve and Tambopata National Reserve (Madre de Dios, Peru) through its participation in the Amazon CoLab and its solution is readily available.



Key Facts

- +300 accesses to the Project Inambari platform demonstrate its user adoption.
- Skytruth has +20 years as a successful nonprofit supported by foundations.
- Makes their products publicly accessible to promote environmental protection.
- Minimizes costs with free government satellite data; primary cost is staffing.



The Artisanal Mining Grand Challenge is a global competition first launched in 2019 by [Conservation X Labs](http://ConservationX.Labs). This Challenge seeks to advance innovative solutions that transform artisanal and small-scale gold mining into a more environmentally responsible and socially equitable practice. Project Inambari is field-testing its solution in the **Amazon CoLab**, the Challenge acceleration program.

www.artisanalminingchallenge.com

Supported by:



CONSERVATION X LABS



Microsoft

