



ASMSPOTTER

Monitoring ASM activity from space

A software solution to automatically detect artisanal and small-scale mining (ASM) activities using **satellite data and artificial intelligence**. It helps governments and conservation organizations to monitor ASM activities and deforestation connected to ASM, and save about 25%-50% of field missions by avoiding visiting inactive mine locations.

This **B2B solution** includes a good governance component, that involves working with trusted partners as part of existing initiatives to educate them on the responsible use of this powerful monitoring solution.

MONITORING AND ACTIONABLE DATA

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Problem

Public organizations face a **challenge monitoring illegal ASM activity** since it is very expensive to baseline, hard to track & stay up-to-date, and there is little understanding of the drivers and scale of the problem. For this reason, around 25%-50% of field missions incurred in false positives, visiting inactive mine spots.



Competitive Landscape

Compared to alternatives in Guyana (such as conventional physical patrols) **ASMSpotter offers a more affordable and efficient option**, allows users to receive information before any spot patrol activity, and has an alert system to detect illegal mining activity.

Funding Needs

Solution

- Use artificial intelligence with over 83% accuracy to automatically detect and monitor ASM activities using readily available satellite data.
- Advisory services to provide analysis for government users.
- A user-friendly front-end web based on Geoserver service
- A radar-based ASM change detection software.

Market

Government authorities; donor organizations; conservation organizations; and mining & exploration companies.

There is also significant interest from the public sector in effective and continuous identification to monitor & assess the direct, indirect, and cumulative impacts of ASM.



ASMSpotter tested, explored new features, and discussed potential pricing options with the Ministry of Natural Resources of Guyana through their participation in the <u>Amazon CoLab</u> in 2022.

Key Facts

- Seeking \$30K in funding
- Recognized as one of the top 10 outstanding projects in the Global Top 100 AI solutions by UNESCO's International Research Centre on AI (IRCAI)

Seeking a \$30K investment fund to:

- Improve usability as well as incorporate radar and optical detection in their platform.
- Create use cases as demos (new Aols) for new target groups
- Implement multi-class model, (feature request)
- Provide ASM detection and analysis to developing country governments.



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--- Microsoft

The Artisanal Mining Grand Challenge is a global competition first launched in 2019 by Conservation X 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. ASMSpotter is field-testing its solution in the **Amazon CoLab**, the Challenge acceleration program.

www.artisanalminingchallenge.com

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