



ARTISANAL MINING GRAND CHALLENGE

Transforming Artisanal and Small-Scale Mining for Water and Biodiversity Conservation

**A global competition with
\$750,000 in prizes to create
innovative solutions**

INNOVATOR'S HANDBOOK

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WHAT IS ARTISANAL AND SMALL-SCALE MINING? (ASM)

While defined differently across countries, ASM generally refers to mining operations with predominantly simplified forms of exploration, extraction, processing, and transportation. These operations are often labor intensive, low-tech, receive limited investment, and require less expertise than medium and large-scale mining operations. ASM operations can be formal or informal, legal or illegal.



The Problem Description

Artisanal and small-scale mining (ASM) is a critical source of livelihood for an estimated 40+ million people worldwide. While ASM generates wealth in developing countries, ASM practices can cause habitat loss, species' population decline, poor water quality, hydrological changes, and negative human health & livelihood

70-80% of colored gemstones come from artisanal and small-scale mining.

impacts. Mining is among the most significant drivers of deforestation in the world's tropical forests, a leading cause of global biodiversity loss.

While defined differently across countries, ASM generally refers to mining operations with predominantly simplified forms of exploration, extraction, processing, and transportation. These operations are often labor intensive, low-tech, receive limited investment, and require less expertise than medium and large-scale mining operations. ASM operations can be formal or informal, legal or illegal.

The global demand for materials—such as gold, rare earth metals, conflict minerals (tin, tantalum, and tungsten), cobalt, and colored gemstones—continues to grow exponentially due to society's increasing appetite for consumer electronics and jewelry. These materials enter global supply chains through both ASM and large-scale/industrial mining operations. However, ASM is a significant source of many critical minerals and metals. Globally, ASM supplies 15-20% of diamonds, 15-20% of gold, and 70-80% of colored gemstones. Twenty-percent of the global cobalt supply is acquired through ASM. Demand for cobalt is projected to increase substantially as societal demands grow for lithium-ion batteries, which require cobalt, to power our everyday lives.

Artisanal-scale gold mining (ASGM) is responsible for ~40% of the world's mercury pollution.

THE GRAND CHALLENGE

What It Is:

Artisanal and small-scale mining has many environmental and social costs such as water pollution, deforestation, loss of biodiversity, and adverse impacts on human health.

The Artisanal Mining Grand Challenge is built to tackle these growing problems by incentivizing and rewarding the creation and/or adoption of new hardware and software products, platforms, and digital solutions that will make artisanal, small-scale, and informal mining operations more environmentally responsible and socially equitable.

The Artisanal Mining Grand Challenge is a \$750,000 competition to inspire and identify solutions that:

- Demonstrate potential to be financially viable and improve the negative environmental and social impacts within the ASM sector.
- At a minimum, are ready to be piloted in a relevant environment and have proof of potential for adoption by users.
- Are creative & novel. This includes the new application of innovations from other fields.

What It Is *Not*:

- Solutions that are in the concept and research phase.
- Pure policy solutions.

Selection Criteria:



1. IMPACT

Biodiversity Conservation
Water Quality, Quantity, and Hydrology
Human Security
No Inadvertent Impacts



2. DESIGN OF THE INNOVATION

Transformative
Novel
Creative
Technical Feasibility



3. ADOPTION AND SCALABILITY

Adoption
Adaptability



4. BUSINESS AND FINANCIAL VIABILITY

Financial Sustainability

Prize Purse: \$750,000

- This will be divided and distributed to a set of finalists who exceed the criteria and expectations of the judges and reviewers.
- The minimum prize will not be less than \$50,000
- \$100,000 of the \$750,000 is the Microsoft AI for Earth award

The Artisanal Mining Grand Challenge: Sub-challenges

Prevent, Remediate, Restore Sub-Challenge:

ASM on-site solutions. The Prevent, Remediate, Restore Sub-Challenge seeks breakthrough innovations that are implemented at ASM sites to prevent, remediate, or restore impacts from ASM on water, hydrology, land, biodiversity, human health, and/or ecosystems.

The environmental and health impacts of ASM activities differ by commodity and location. ASM operations tend to use the most accessible (i.e. inexpensive, readily available, traditional) methods to mine materials. These methods are not always environmentally responsible, healthy, safe, cost-effective, or efficient. This sub-challenge seeks solutions that prevent anthropogenic sources of toxic contaminants such as mercury and other heavy metals from entering the environment; remediate or restore the land; reduce changes to hydrological functions and water quality; reduce habitat loss for terrestrial and aquatic species in core biodiversity regions such as dry and wet tropical forests in the Amazon, sub-Saharan Africa, and Southeast Asia; and reduce negative human health impacts and other social costs.

Reform Supply Chains Sub-Challenge:

Solutions downstream from ASM sites. The Reform Supply Chains Sub-Challenge seeks innovations that significantly reduce the social and environmental costs of commodities sourced through ASM, downstream from the ASM sites.

ASM materials are common in our devices, jewelry, and many other everyday products. Demand for these materials is predicted to continue to grow substantially. Innovations in this Sub-Challenge may be applied at any point along the ASM supply chain. For example, they may increase transparency along the supply chain, transform the financing mechanisms for ASM, or drive consumer demand and behavior toward responsibly sourced materials. Innovations should demonstrate measurable, attributable impact on reducing or eliminating harm to water resources, soil, biodiversity, and/or human health and well-being.

The Global Data Sub-Challenge:

Solutions on-site and downstream from ASM sites. The Global Data Sub-Challenge seeks solutions that measure the environmental and social impacts of ASM and equip people with tools to improve the environmental and social outcomes of ASM practices.

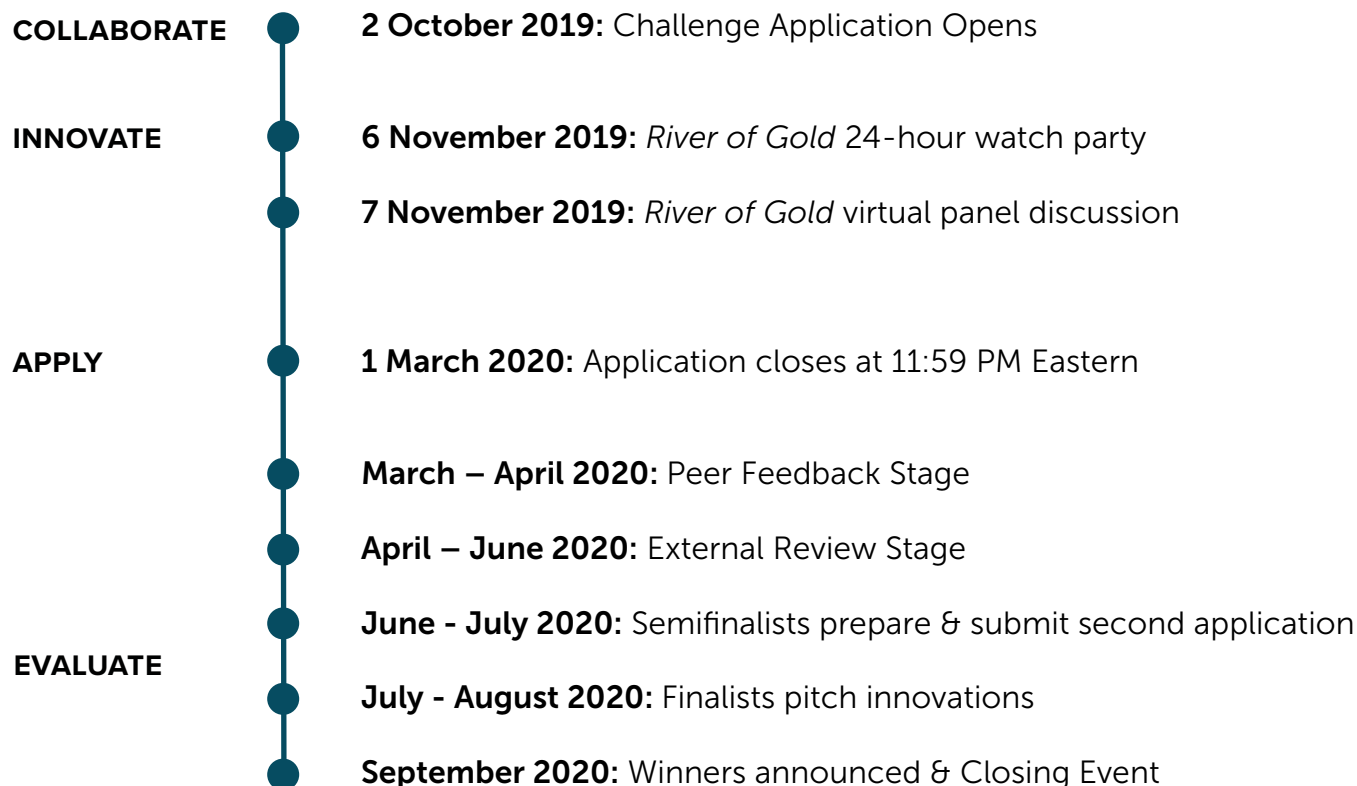
This Sub-Challenge seeks solutions to improve the process of collecting and communicating data regarding who, what, where and how different commodities are being mined along the supply chain. Solutions should drive ASM toward being a more environmentally and socially responsible industry and focus on at least one of the following: decreasing the cost of data collection, increasing the ease of data collection, enhancing the accessibility of data, and/or improving the actionability of the data. In all cases, the data must be directly relevant to improvements in ASM practices and/or impacts.

Microsoft AI for Earth Award

As part of the Grand Challenge, Microsoft's AI for Earth initiative is awarding \$100,000 for solutions that utilize or deploy artificial intelligence (AI), including machine learning, to address ASM in any of the Sub-Challenge categories.

Solutions submitted to the Grand Challenge may be eligible to receive the Microsoft AI for Earth Award. To be eligible, solutions must have access to a labeled dataset, identify a user-base, and have an implementation plan. Winner(s) will also have the opportunity to engage with Microsoft AI for Earth regarding the availability of the solution's algorithm, APIs, and access to data.

Challenge Timeline



Why a challenge?

A challenge is a new approach to an old problem. At the highest level, it is an open process that expands the pool of talent, creativity, and disciplines to find, create, incubate, and accelerate effective and impactful solutions to complex problems. With this approach, openness and participation are the catalysts for innovation.

At Conservation X Labs, our philosophy of open innovation is to a) harness prestige and intellectual curiosity to develop challenges, prizes, and crowdsourcing that will inspire individuals and teams to push past conventional limits and thinking and break down intractable barriers to change; b) encourage the development of new breakthrough innovations and solutions for artisanal scale mining; c) entice new innovators from outside of the field to bring their ideas to bear on critical challenges and challenge traditional views and biases; and d) create new communities of practice that are focused on small-scale mining and attract new solvers and solutions to particular problems, opening the door for new entrants and building momentum for new industries.

By thoughtfully opening up organizational and industry-wide challenges to the masses, we can unleash the creative potential that has the promise to make a lasting positive impact as people contribute their talents to issues they care deeply about.

The Global Coalition: Who's Involved?

The Gordon and Betty Moore Foundation

Funding Partner

The Gordon and Betty Moore Foundation is an American foundation established by Intel co-founder Gordon E. Moore and his wife Betty I. Moore in September 2000. The Moore Foundation supports path-breaking scientific discovery, environmental conservation, patient care improvements and preservation of the special character of the San Francisco Bay Area.

Microsoft

Funding Partner

Microsoft AI for Earth empowers organizations and individuals working to solve global environmental challenges. AI for Earth awards grants to projects that use artificial intelligence to address four critical areas that are vital for building a sustainable future: climate, agriculture, biodiversity, and water.

Wake Forest University's Centro de Innovación Científica Amazónica - CINCIA

Operational Partner

The Center for Amazonian Scientific Innovation (CINCIA) is the leading research institution for environmental research and the development of technological innovation for biological conservation and environmental restoration in the Peruvian Amazon region.

Delve

Collaborator

Delve is a global platform for artisanal and small scale mining data developed by the non-profit Pact and the World Bank. Delve is open source and aims to eliminate the global data gap in the artisanal and small-scale mining sector by leveraging extant reports as well as collaborator contributions. <https://delvedatabase.org/>

Conservation International

Scaling and Amplification Partner

Conservation International (CI) is an American nonprofit environmental organization headquartered in Arlington, Virginia. Its goal is to protect nature as a source of food, fresh water, livelihoods and a stable climate. CI's work focuses on science, policy, and partnership with businesses and communities.

World Wildlife Fund

Scaling and Amplification Partner

World Wildlife Fund (WWF) works in 100 countries and is supported by more than one million members in the United States and close to five million globally. WWF's unique way of working combines global reach with a foundation in science, involves action at every level from local to global, and ensures the delivery of innovative solutions that meet the needs of both people and nature.

Wildlife Conservation Society

Scaling and Amplification Partner

Wildlife Conservation Society (WCS) envisions a world where wildlife thrives in healthy lands and seas, valued by societies that embrace and benefit from the diversity and integrity of life on Earth. It saves wildlife and wild places worldwide through science, conservation action, education, and inspiring people to value nature. WCS's goal is to conserve the world's largest wild places in 16 priority regions, home to more than 50% of the world's biodiversity.

Andes Amazon Fund

Scaling and Amplification Partner

The Andes Amazon Fund (AAF) conserves the biodiversity, ecosystems, and environmental health of the Andes and Amazon. It establishes and expands protected areas so that the indigenous cultures and nature can flourish. Its team of devoted experts works arm-in-arm with indigenous peoples and other communities to advance AAF's vision.

Amazon Conservation Association

Scaling and Amplification Partner

The Amazon Conservation Association (ACA) works to protect biodiversity where the Andes Mountains meet the Amazon rainforest in Peru and Bolivia. The organization has grown to protect over 4 million acres of rainforest, establish Peru's first conservation concession, host thousands of scientists and tourists at their three premier biological stations, empower indigenous communities to develop forest-friendly livelihoods, and so much more.

RESOLVE

Scaling and Amplification Partner

RESOLVE envisions a less polarized world with a shared commitment to transforming ambitious ideas into real benefits for people, communities, and ecosystems. RESOLVE forges sustainable solutions to critical social, health, and environmental challenges by creating innovative partnerships where they are least likely and most needed.

Levin Sources

Scaling and Amplification Partner

Levin Sources is a consultancy and social venture that moves more minerals through systems where good governance and better business are the norm. Levin Sources drives performance mineral economies, creating and optimizing the operating conditions that make responsible business conduct possible. They help corporate clients deliver positive outcomes for society through improving their strategies, systems, and suppliers. They also help governments improve integrity, sustainability performance, and governance in minerals sectors.

Pan American Development Foundation

Scaling and Amplification Partner

The Mission of the Pan American Development Foundation is to assist vulnerable and excluded people and communities in the Americas to achieve sustainable economic and social progress, strengthen their communities and civil society, promote democratic participation and inclusion, and prepare for and respond to natural disasters and other humanitarian crises, there by advancing the principles of the Organization of American States and creating a Hemisphere of Opportunity for All.

Water, Environment and Human Development Initiative (WEHDI)

Scaling and Amplification Partner

WEHDI is a Swiss-based not-for-profit development membership organization that works with partners to promote transformational change for all, through joint action, while respecting the environment. WEHDI's vision is a water and environmental development practice in which policy actions and decisions on planning, management, and monitoring are based on evidence and realize inclusive, transformative and sustainable human development.

The Tech Interactive

Amplification Partner

The Tech Interactive is a family-friendly science and technology center in the heart of downtown San Jose. Its hands-on activities, experimental labs, and design challenge experiences empower people to innovate with creativity, curiosity and compassion.

Partners are critical to the Grand Challenge. Let us know how you can help by providing funding, advertising the challenge, or supporting the innovators. Contact Conservation X Labs about a partnership: water@conservationxlabs.org

Join a Community of Practice

Want to discuss your innovation or ideas with a Community of Solvers?

Join the Digital Makerspace, the Conservation X Labs online community, to find collaborators and share ideas while you are preparing your application for the Artisanal Mining Grand Challenge. The Digital Makerspace is an online open community working toward creating tech solutions for conservation's greatest problems. Find collaborators and peers, and iterate on your ideas in the Digital Makerspace.

<https://conservationx.com>

Applying to the Challenge

Application Timeline and Structure

Grand Challenge competitions are not only opportunities to source and reward the best innovations, but they are also opportunities to build Communities of Practice and facilitate collaboration between different stakeholders. Therefore, to help build a Community of Practice in the Artisanal Mining Grand Challenge, all eligible applicants will be asked to PROVIDE FEEDBACK to a small number of other applications (your peers) in the competition. For each application that you submit, you will have the opportunity to decide if you want to open up your application to other applicants in a Peer Feedback & Revision Stage. If you and your co-authors agree to open up your application to peer review, then you will have a chance to REVISE your application over one week after the deadline (March 1, 2020) and before the external Reviewers and Judges evaluate your application. If you do not open up your application to other applicants in the challenge, you (or someone on your team) still need to PROVIDE feedback to your assigned applications; however, you will not get the chance to REVISE your application like the teams that open up their applications.

The FEEDBACK will not be anonymous. In addition, you are encouraged to give constructive, high quality feedback. Recipients of feedback will score the quality of the feedback. The average feedback score will go towards the final score of your application. If you don't GIVE feedback or if you give poor-quality feedback, then your overall application score may be lower.

Timeline

- **Stage 1:** Submit your application. Oct 2, 2019 - March 1, 2020 (11:59 PM EST).
- **Stage 2:** Feedback stage – 2 weeks. March 16-30, 2020.
- **Stage 3:** (optional) Revision stage – 1 week. March 31 - April 7, 2020.
- **Stage 4:** External Evaluation of Applications
 - Top ~25-30 Semi-finalists notified in early June, 2020. Prepare second application
 - Top ~10-15 Finalists notified in July, 2020.
- **Stage 5:** Finalists pitches & interviews, late July - early Aug 2020.
- **Winners selected and announced at the closing event, September 2020.**

Structure

Stage 1: Apply

You must submit your application by March 1st, 2020, 11:59 PM Eastern Standard Time (New York).

Please make sure you are adhering to our eligibility requirements, as your application will not move on to Stage 2 if it is determined to be ineligible.

Basic eligibility criteria:

- A. The application is complete: All of the required information is provided and submitted through the online application platform by the deadline.
- B. The application is in response to the Grand Challenge: Applicants must make a direct or very compelling indirect link as to how their innovation addresses the Grand Challenge. If the innovation does not address the Grand Challenge, then it may be disqualified.
- C. The application is in English.
- D. The innovation is a physical, tangible, actual thing or process by the closing of the application deadline. The innovation needs to be more than an idea on paper or a theoretical concept. If the development stage is unclear from what is provided in the application, the application may be disqualified.

In Stage 1, you will need to decide if you will participate in Stage 3, the REVISION stage. You will be randomly assigned to one of two groups – automatically opted-in to Revision Group or automatically opted-out of Revision Group. No matter what group you are assigned you, you can change your status to the alternative.

(1) Opt-in to Revision Group: Choose to share your technical application with at least one other team within the competition. If you select this option, you will receive peer feedback on your application in Stage 3, and you will have one week to improve and revise your application.

(2) Opt-out to Revision Group: Choose to keep your application private and receive no feedback. You will not be given any additional time to revise or improve your application.

For both options, applicants are required to read and provide feedback to a set number of applications.

Stage 2: Give Feedback

On Monday, March 16th, all applications that are eligible will be notified to move forward to Stage 2, the feedback stage.

Details

Our goals for the impacts of this challenge are to provide a larger community of practice that can help support and accelerate innovations and to help improve the overall quality of the applications that are being submitted. To achieve these goals, and harness the science of innovation itself, we have been working to design a feedback mechanism that allows applicants to receive useful feedback on their proposals if they would like. The applicants are also required to provide useful feedback to others, and the quality of that feedback will also be considered as part of their overall application. Although prizes and challenges are powerful as tools of competition, we can also use cooperation, such as peer feedback as a way of helping us solve this challenge.

Your team will have 2 weeks to provide feedback on a set number of competing applications. We expect that your team will receive somewhere between 3-5 applications (the exact number will be determined after the application window closes).

Your comments should be as constructive and helpful as possible to help improve the quality of the application. The feedback should focus on how to strengthen the application around the key criteria, impact, design, adoption and financial viability. Anyone who is listed as a collaborator (co-author) on your application may provide the feedback.

You will be asked to provide half a page to a page of feedback per application, with a limit of 350 words. We are looking for 1-2 key insights that may be most helpful to improving the application, and quality is more important than quantity.

The feedback is not anonymous. Research has shown that transparent peer feedback can lead to significant outcomes in your work. This is an opportunity to capitalize on the power of collaboration with your peers to improve your innovation. At Conservation X Labs, we will be studying how it influences outcomes and let you know what we find. This feedback could lead to new team-members, mergers with similar projects, and new approaches that significantly improve your solution

Your peers will be scoring the quality of your team's feedback as part of your overall score. Giving feedback is required of all applicants, and the feedback score will be worth 5% of your total application score. So it is in your interest to make your best efforts to help others.

You have a chance to win additional funding through your feedback. If your feedback is highly ranked, and the application in which you provide feedback wins the competition, your team will receive an additional \$2,500.

Stage 3: Revise

On Tuesday, March 31st, all competing teams that opted-in to the Revision Group will receive the written feedback on their applications from 3-5 reviewers, and have one week to make final revisions to their applications. All revisions and feedback scores must be completed by Tuesday, April 7, 2020 11:59 PM EDT. Those who have opted-out of the Revision Group will not have that opportunity.

Details

At this stage, you will receive feedback that your peers submitted in Stage 2.

First, you will need to provide an evaluation of all the feedback that you receive on a score from 0-10. It is very important that you do so honestly and fairly, and we will review the feedback scores in the case of any irregularity. We will provide a scoring rubric for you to follow. This score is considered as part of the applicant's overall score. You are required to submit feedback scores before you submit your final, revised application.

Second, you may use this feedback to revise and improve your application before it is submitted to the external reviewers during this one week revision period.

Stage 4: External Evaluation of Applications

After April 7, 2020, 11:59 PM EDT, teams that opted-in to the Revision Group will no longer be able to make revisions to applications. All applications will be forwarded to panels of external reviewers and judges. Your applications will be reviewed and scored based on the selection criteria.

Details

The reviewers and judges will select the top 20-25 semi-finalists to advance to the next application round (the exact number will depend on the overall numbers of applicants).

Semi-finalists will be notified in early June, 2020. Semi-finalists will gain access to a second application. They will have about 3 weeks to prepare and submit the second application.

Reviewers and judges will evaluate the semi-finalists' applications and select the top 10-15 finalists. Finalists will be notified in July, 2020.

Stage 5: Finalists' pitches & interviews, late July - early Aug 2020

Ten to fifteen finalists will be notified in July, 2020, and allowed a short period of time to prepare for virtual presentations and interviews with Grand Challenge judges. Judges will evaluate the applications, pitches, and interviews to select a set of prize-winning applications. Winners will be selected and announced at the closing event in August - September 2020.

Application Questions

Access the online application form at the following URL:

https://conservationxlabs.smapply.io/prog/artisanal_mining_grand_challenge/

You must create an account with Survey Monkey Apply to start an application. The person creating the account and application is the "Lead Author." As the Lead Author, you may add "collaborators" to your application. Collaborators will also be able to edit the application. You may add other team members to the application without adding them as "collaborators" in Survey Monkey Apply.

The application questions are provided below as a *resource* for applicants to help prepare applications. Everyone must submit applications through the online **application form** by the closing date and time, March 1, 2020 by 11:59 pm eastern. Challenge administrators will **not accept** digital applications submitted outside of the official application form online, nor will they accept paper applications.

Application name: Enter the title of your innovation

In the application platform, you will have three "Tasks" to complete before you are able to submit your application.

1. Demographic Information Form - four sections
2. First Round Technical Submission - six sections
3. Short Video / Image upload - one section

Demographic Information

The following responses are NOT provided to peer reviewers, external reviewers, or judges. Challenge administrators at Conservation X Labs will use the demographic information to better understand the applicant pool. In addition, the Challenge administrators may use this information to help design programs and opportunities for applicants during and after the competition.

A. BACKGROUND

1. What is the lead author's affiliated organization? Please list the name of the organization.
2. Title of lead author

3. Is the lead at least 18 years old? Please confirm (Yes/no)
4. Type of organization of affiliation for the lead
 - a. NGO (non-governmental organization)
 - b. Government organization
 - c. SME (small and medium enterprise, 10-250 employees)
 - d. Micro-company (< 10 employees)
 - e. Individual / Independent
 - f. Academic organization
 - g. Multinational corporation
 - h. Professional Association
 - i. Company with > 250 employees
 - j. Nonprofit organization
 - k. Other
5. What is the native language of the person preparing the application?
6. What was the inspiration for this innovation? Provide a brief explanation (100 word or less).
7. Is your solution, or an earlier version of your proposed solution, posted in Conservation X Labs' Digital Makerspace? If yes, enter the project URL(s).
8. What is the legal structure supporting the innovation described in this application?
 - a. Unincorporated (sole proprietorships or partnerships)
 - b. Corporation (C Corporations and S Corporations)
 - c. B-Corporation
 - d. Limited Liability Company (LLC)
 - e. NGO (non-governmental organization)
 - f. Nonprofit organization
 - g. Government organization
 - h. Academic organization
 - i. Other
9. Briefly explain any capital raised to date and terms (150 words or less).
10. Have you received any awards for this innovation? If so, please list (100 words or less).
11. Have you previously attended any accelerators, incubators, or other business-support programs? If so, which one(s)? (100 words or less)
12. Why did you apply to this challenge? (100 words or less)
13. Do you have any patents or have any IP that you would like/are in the process of getting patented relevant to this innovation? Does anyone else have rights to your IP? (150 words or less)

B. EXPERTISE

1. Is the lead author an expert in the ASM* field? yes/no
*ASM stands for Artisanal and small scale mining
2. How many years of experience does the lead author have in the field of ASM?
 - a. Less than 1 year
 - b. 1-2 years
 - c. 2-5 years
 - d. 5-10 years
 - e. More than 10 years
3. How many years has the lead author been working on this innovation? Enter the number of years.
4. Since the lead author started working on this innovation, what percent of their time has been dedicated to this work? Enter a percent between 0-100%
5. Please provide a URL for the lead author's LinkedIn page if available.
6. Please include details about the expertise of all of the team members on this application. (Table with up to 10 rows to list team members. Column headings: Team member name; Are they an expert in the ASM field?; How many years of experience do they have in the field of ASM?; Since they started working on this innovation, what percent of their time has been dedicated to this work?; Provide a URL for their LinkedIn page if available.)
7. Upload the CVs for the lead author and team members (minimum of 1 file, maximum 11 files. file size maximum 3 MB. Accepted formats .pdf, .doc, .docx)

C. SOURCE OF DATA ABOUT CHALLENGE

1. Where did you hear about the Artisanal Mining Grand Challenge? Select all that apply.
 - Twitter
 - Instagram
 - Facebook
 - LinkedIn
 - Through newsletters or emails sent by Conservation X Labs
 - Newspaper

- My colleagues or friends, word of mouth
 - I attended the Grand Challenge Launch Event in San Jose, CA
 - Other, please list
2. Did you hear about the Artisanal Mining Grand Challenge through representatives or any media created by the partners and collaborators? Check all that apply.
- Gordon and Betty Moore Foundation
 - Microsoft / Microsoft AI for Earth
 - Conservation International
 - WWF
 - Wildlife Conservation Society
 - Andes Amazon Fund
 - Wake Forest University, CINCIA
 - Amazon Conservation Association
 - Delve
 - WEHDI
 - Mongabay
 - The San Jose Tech Interactive
 - Amazon Aid Foundation / River of Gold movie
 - Levin Sources
 - Pan American Development Foundation
 - RESOLVE
 - Other, please list

D. DEMOGRAPHIC INFORMATION AND TEAM

1. Postal address of the lead author
2. Country where the lead author is based

Conservation X Labs is dedicated to diversity, equity, and inclusion in its open innovation programs like Grand Challenges. The information on gender, race and ethnicity is useful to

help us at Conservation X Labs evaluate our current program design and improve future programs. For these questions, you may select the option “prefer not to answer.” Your responses will not be provided to peer reviewers, external reviewers, or judges.

3. Select the gender identify that best applies to the lead author:

- ☐ Male
- ☐ Female
- ☐ Non-Binary
- ☐ Prefer Not to Answer

4. Select the race/ethnicity of lead author:

- ☐ White / Caucasian
- ☐ Spanish / Hispanic / Latino
- ☐ Black / African American
- ☐ Asian
- ☐ Pacific Islander
- ☐ Native American
- ☐ Other
- ☐ Prefer Not to Answer

5. Is the lead author enrolled as a student at any educational institution at the time of the application deadline? (yes/no)

6. Please include details about all of the team members on this application. (Table with up to 10 rows to list team members. Column headings: Team member name; Email; Gender; Currently a student?; Country where they maintain residency; Race/ethnicity)

Selection Criteria

The total prize pool is worth \$750,000 with \$100,000 earmarked for the Microsoft Artisanal Mining AI for Earth Award. All eligible applications will be evaluated based on the following criteria.

1. Impact Biodiversity Conservation Water Quality, Quantity, and Hydrology Human Security No Inadvertent Impacts	This Grand Challenge seeks innovations that will have tangible, net-positive impacts on biodiversity conservation, water resources (including quality, quantity, and hydrology), and/or improve human health and/or human security. Applicants must also acknowledge and propose mitigation efforts for any significant inadvertent effects that the innovation may have on biodiversity conservation, water resources, environmental security, human health, and human security.
2. Design of the Innovation Transformative Novel Creative Technical Feasibility	This Grand Challenge seeks innovations that are technically feasible, demonstrate a thorough understanding of the specific need (e.g. problem), and are thoughtfully designed to address the specific need. In addition, it seeks transformative innovations that are different from those currently being deployed and have the potential to transform ASM for the better.
3. Adoption and Scalability Adoption Adaptability	This Grand Challenge seeks innovations that are designed with the users/customers in-mind throughout the design and the deployment of the innovation in order to increase the likelihood of mass adoption of the innovation.
4. Business and Financial Viability Financial Sustainability	This Grand Challenge seeks innovators that demonstrate an understanding of how they will finance their innovation over time, if and how it will generate revenue, and what risks need to be mitigated in order for it to be viable.

First Round Technical Submissions

The following sections are part of the technical submission and will be judged according to the scoring system in the tables below.

The applicant's peer feedback score will be added to the judged technical criteria scores according to the table below.

External reviewers and judges will assign point values (on a scale of 0 to 5) for the statements associated with the four Technical Submission Criteria (Impact; Innovation Design; Adoption and Scalability; Business and Financial Viability). Each Technical Submission Criteria topic will receive a total of 20 points.

The applications that are eligible for the Microsoft AI for Earth Award will receive a second score on a scale of 0-10 points to be considered for that award.

0	1	2	3	4	5
Does not meet the criteria	Meets few of the criteria	Meets some of the criteria	Meets most of the criteria	Meets all of the criteria	Exceeds the criteria

Technical Submission Criteria	Score
Impact (4 criteria)	20 points
Design of the Innovation (4 criteria)	20 points
Adoption and Scalability (4 criteria)	20 points
Business and Financial Viability (4 criteria)	20 points
Feedback Score	5 points
Total:	85 points
If Eligible: Microsoft AI for Earth Award Score (2 criteria)	10 points

A. SUMMARY

1. In 100 words or less, provide a succinct summary of your innovation.

B. SUB-CHALLENGES

This Section is intended to gather basic information about your application and determine eligibility for the Microsoft AI for Earth Award.

1. Specify which sub-challenge you are applying for. If your innovation spans multiple categories, select all that apply.

- a. Prevent, Remediate, Restore
 - b. Reform Supply Chains
 - c. Global Data
 - d. Microsoft AI for Earth Award
2. Microsoft AI for Earth Award is selected): To be eligible for the Microsoft AI for Earth Award, please indicate if your innovation incorporates an artificial intelligence (AI) or machine learning component? yes/no
3. (if yes): Innovations will be considered for the Microsoft AI for Earth Prize if:
 - The innovation includes a working machine learning model;
 - The innovators will implement and deploy the model on Microsoft Azure;
 - The innovators are willing to discuss with Microsoft AI for Earth ways to make the machine learning models accessible to relevant parties (such as, but not limited to, open source); and,
 - The innovation can be implemented and scaled in the field through a partnership or through another mechanism.

To be eligible, do you agree to these terms? (yes/no)

4. The next two statements (1A and 1B) are worth a total of 10 points. These points are only applied to applications that are eligible for the Microsoft AI for Earth Award. Provide as much evidence to support your claims as possible.

1A. Provide a standard description template of the machine learning model, including information on the machine learning data on which the solution was trained and summary statistics about solution performance.

Upload your concise response. Judges will only review the first 5 pages provided for this response.

Upload a .doc or .pdf up to 5 pages. You will also be able to provide a text description up to 255 words. Max file size: 25 MB

Judged criteria: Applicant clearly demonstrates the technical merits of the model. 5 points.

1B. Briefly indicate how the AI innovation will be implemented to achieve impact on environmental and social outcomes. Include a description of current or ideal implementing partners that will help implement the innovation. (100 words or less)

Judged criteria: Applicant clearly describes how the AI innovation will be implemented to achieve the desired impact of the innovation on ASM. 5 points.

C. IMPACT

- Biodiversity Conservation
- Water quality, quantity, and hydrology
- Human Security
- No inadvertent negative effects

Judges will score each criteria ("Judged Criteria", A through D) on a scale of 0 to 5 based on your responses. In this section, each of the judged criteria require one written response. Please provide your responses in the text boxes after the numbered statements. You are writing responses to the statements that follow the text "Applicants should." There are word limits for each response.

In this section, there are 4 text boxes requiring your responses. Here is how your responses will be scored:

Judged criteria A, statement 1 (5 points total)
Judged criteria B, statement 2 (5 points total)
Judged criteria C, statement 3 (5 points total)
Judged criteria D, statement 4 (5 points total)
= 20 points total

You are allowed to submit a 2-page .pdf or .doc-file to substantiate the claims made in the IMPACT section. You must reference the attachment in the written answers.

Judged criteria:

A. The innovation will have a tangible, net-positive impact on biodiversity conservation, including at a species, community, and/or ecosystem scale. 5 points

Applicants should:

1. Describe how and to what extent the innovation will achieve impacts on biodiversity conservation. (300 words or less)

Judged criteria:

B. The innovation will have a tangible, net-positive impact on water resources, including water quality, quantity, and hydrology. 5 points

Applicants should:

2. Describe how and to what extent the innovation will achieve impacts on water resources. (300 words or less)

Judged criteria:

C. The innovation will have a tangible, net-positive impact on human security* including human health. 5 points

Applicants should:

3. Demonstrate the extent to which the innovation provides tangible benefits for human security including impacts on human health. (300 words or less)

Judged criteria:

D. The innovation minimizes any inadvertent impacts that will negatively impact environmental** or human* security. 5 points

Applicants should:

4. Demonstrate any potential inadvertent impacts on environmental* or human** security. Clearly define any measures that must be taken to mitigate any negative inadvertent impacts. (300 words or less)

***Human security**

encompasses global vulnerabilities at the human rather than the national level, for example, human rights, economic security, food security, health security, environmental security, personal security, community security, and political security ([Wikipedia](#)).

****Environmental security** encompasses threats posed by environmental events and trends to individuals, communities or nations. It may focus on the impact of human conflict and international relations on the environment, or on how environmental problems cross state borders ([Wikipedia](#)).

D. DESIGN OF THE INNOVATION

Judges will score each criteria ("Judged Criteria", A through D) on a scale of 0 to 5 based on your responses. In this section, some of the judged criteria require more than one written response. Please provide your responses in the text boxes after the numbered statements. You are writing responses to the statements that follow the text "Applicants should." There are word limits for each response.

In this section, there are 7 text boxes requiring your responses. Here is how your responses will be scored:

Judged criteria A, statements 1 & 2 (5 points total)

Judged criteria B, statements 3 & 4 (5 points total)

Judged criteria C, statement 5 (5 points total)

Judged criteria D, statements 6 & 7 (5 points total)

= 20 points total.

You are allowed to submit a 2-page .pdf or .doc-file to substantiate the claims made in the DESIGN OF THE INNOVATION section. You should reference the attachment in the written answers.

Judged criteria:

A. The innovation has the potential to transform at least one aspect of the ASM industry.
5 points

Applicants should:

1. Clearly define the need or problem the innovation is solving. (150 words or less)
2. Clearly state how the innovation will solve the need or problem. (150 words or less)

Judged criteria:

B. The innovation is sufficiently different from existing solutions that are currently deployed in the field. 5 points

Applicants should:

3. Demonstrate a thorough understanding of the competitive landscape. (150 words or less)
4. Explain how this innovation is different from other solutions that are currently deployed and contrast the elements of the innovation that are unique to help solve the identified need or problem. (300 words or less)

Judged criteria:

C. The innovation is creative in the way it addresses the described need or problem. 5 points

Applicants should:

5. Explain how this innovation creatively solves the identified need or problem. Contrast the elements of the innovation to existing solutions or, if relevant, elements of the innovation that are used for a completely different technological application (i.e. not currently used in ASM but another sector.) (300 words or less)

Judged criteria:

D. The innovation is technically feasible, and the applicant has provided sufficient evidence to demonstrate feasibility. 5 points

Applicants should:

6. Describe how well-developed your innovation is and its [Application Readiness Level \(ARL\)](https://www.nasa.gov/sites/default/files/files/ExpandedARLDefinitions4813.pdf). (150 words or less) URL of Application Readiness Level:
<https://www.nasa.gov/sites/default/files/files/ExpandedARLDefinitions4813.pdf>
7. Provide evidence and summarize the results of any tests, demonstrations, or deployments of the innovation. (300 words or less)

E. ADOPTION AND SCALABILITY

Judges will score each criteria ("Judged Criteria", A through D) on a scale of 0 to 5 based on your responses. In this section, some of the judged criteria require more than one written response. Please provide your responses in the text boxes after the numbered statements. You are writing responses to the statements that follow the text "Applicants should." There are word limits for each response.

In this section, there are 6 text boxes requiring your responses. Here is how your responses will be scored:

Judged criteria A, statement 1 (5 points total)
 Judged criteria B, statement 2 (5 points total)
 Judged criteria C, statements 3 & 4 (5 points total)
 Judged criteria D, statements 5 & 6 (5 points total)

= 20 points total

You are also allowed to submit a 2-page .pdf or .doc-file to substantiate the claims made in the ADOPTION AND SCALABILITY section. You should reference the attachment in the written answers.

Judged criteria:

A. The applicant has gathered user/customer input to inform the design of the innovation so that it will be adopted in the field. 5 points

Applicants should:

1. Demonstrate how you gathered user input and how this input informed the design of the innovation with user adoption as a key design element. (150 words or less)

Judged criteria:

B. The applicant has shown sufficient evidence to indicate that users/customers will use the innovation instead of existing solutions. 5 points

Applicants should:

2. Demonstrate evidence (e.g. market studies, interviews, customer testing, etc.) that there is demand for the innovation. (150 words or less)

Judged criteria:

C. The applicant has demonstrated an understanding of any modifications in behaviors or practices that will be required for users/customers to adopt the innovation instead of existing solutions. 5 points

Applicants should:

3. Articulate what behaviors and/or practices may need to be modified so that people use your innovation. If none, please state why you think this. (300 words or less)

4. Clearly articulate how lessons learned will result in adoption and adaptation of the innovation. (150 words or less)

Judged criteria:

D. The applicant has clearly articulated how the innovation is designed for widespread adoption and use (including articulation of any needed adaptation for widespread use.) 5 points

Applicants should:

5. Articulate how any tests, demonstrations, or deployments will result in adaptation of the innovation (if needed). If no adaptation is required, this should be noted. (150 words or less)

6. Describe how your innovation was designed with scale and mass adoption in mind and the ways your innovation will eventually be used by millions of users/customers. (300 words or less)

F. BUSINESS AND FINANCIAL VIABILITY

Judges will score each criteria ("Judged Criteria", A through D) on a scale of 0 to 5 based on your responses. In this section, some of the judged criteria require more than one written response. Please provide your responses in the text boxes after the numbered statements. You are writing responses to the statements that follow the text "Applicants should." There are word limits for each response.

In this section, there are 8 text boxes requiring your responses. Here is how your responses will be scored:

Judged criteria A, statements 1 through 4 (5 points total)

Judged criteria B, statements 5 & 6 (5 points total)

Judged criteria C, statement 7 (5 points total)

Judged criteria D, statement 8 (5 points total)

= 20 points total

You are also allowed to submit a 2-page .pdf or .doc-file to substantiate the claims made in the BUSINESS AND FINANCIAL VIABILITY section. You should reference the attachment in the written answers.

Judged criteria:

A. The applicant has provided detailed descriptions of existing users/customers and revenue (if available) and/or has sufficiently described a plan to acquire new users/customers and generate future revenue. 5 points

Applicants should:

1. Demonstrate evidence that there is demand for the innovation (e.g. value proposition, customer discovery, willingness to pay, etc.) (150 words or less)
2. Describe who is currently using your innovation, if anyone. (150 words or less)
3. If the innovation is already generating revenue, provide revenue totals, month over month growth for the last six months, and future projections. (150 words or less)
4. If the innovation is not already generating revenue, provide a detailed plan and evidence describing how you will acquire new users/customers (i.e. customer growth metrics), and how you will measure and track your users/customers (150 words or less)

Judged criteria:

B. The applicant has provided a well-defined and realistic plan to get funding for further development and deployment of the innovation. 5 points

Applicants should:

5. If your innovation doesn't currently have any users/customers, how will you track progress towards getting users/customers (e.g. letters of intent, purchase orders, written commitments, memorandums of understanding, wait list sign-ups, etc.) (150 words or less)
6. Provide a well-defined and realistic plan to get funding and articulate the type and amount of funding required. (150 words or less)

Judged criteria:

C. The applicant has provided convincing evidence that users/customers are willing to pay for and use the innovation. 5 points

Applicants should:

7. Provide convincing evidence that users/customers or a third party are willing to pay for the innovation. (150 words or less)

Judged criteria:

D. The applicant demonstrated a clear understanding of risks that may impact the feasibility and long-term viability of the innovation and provided a realistic plan to mitigate or reduce the identified risks. 5 points

Applicants should:

8. Describe the top three real or perceived risks that may impact the feasibility and long-term viability of your innovation (e.g. technological, political, financial, cultural, social, etc.) and describe how you plan to mitigate or reduce these three risks. (300 words or less)

Short Video / Image Upload

Upload either one photo or one short video clip (less than 2 minutes) that demonstrates your innovation in action.

Note: We are not asking for a sophisticated or well-produced video. The video can be a short clip with or without audio, or it can be a series of still images with subtitles. We want to see photographic or video evidence that clearly shows that the innovation exists. Evidence may include visuals or other information like testimonials, code, websites, or models. Please also include a short transcript of the video as a .doc, .docx, or .pdf file explaining the video clip if your video does not have audio or subtitles.

Judged Criteria – Eligibility: Applicants provide sufficient visual evidence demonstrating that the innovation exists beyond a theoretical concept.

Guidelines and Rules

To access the application, go to the following URL:

https://conservationxlabs.smapply.io/prog/artisanal_mining_grand_challenge/

Applications will be created and submitted through the Survey Monkey Apply online platform. You will need to register and create an account to start your application. If you already have a Survey Monkey account associated with your email address, you may need to reset your password. You might also need to verify your email address. Pay attention to the instructions while creating your Survey Monkey Apply account and read emails sent from "noreply@mail.smapply.io"

After you create your account in Survey Monkey Apply:

- Select the "Apply" button in the Survey Monkey Apply portal. A text box will pop-up asking you to "Name your application." Write an appropriate title for your innovation in this text box.
- Complete the three "tasks" in the application: Demographic Information Form, First Round Technical Submission, and a short video/image upload.
- Note that you may add collaborators to the application. Collaborators can view and edit the application.
- You must complete all of the required "tasks" in the application and select "Review and Submit" by the deadline.

Before you begin your application, please read through this Challenge Handbook. The Handbook will step you through the application process, rules, guidelines, evaluation criteria, and the Grand Challenge terms and conditions.

- Please fill out the application form in the English language only.
- Applicants must provide valid contact details to allow the Artisanal Mining Grand Challenge administrators to contact them to communicate any information related to the competition.
- The Challenge Administrators encourage participants to complete the application form and submit it before the Challenge deadline (March 1, 2020 at 11:59 PM EST/New York).
- Applicants are encouraged to review the evaluation criteria and application form fields in the Grand Challenge Handbook before starting the application. Applicants can also download the entire application form in Survey Monkey Apply.
- Please provide succinct responses and stay within the stipulated word count for each response.

- All participants are responsible for applying for legal protection for any intellectual property (IP) that they believe forms part of their application. All participants entering the competition will do so at their own risk if they have not provisionally filed for IP protection prior to entering the Challenge. Participants can be assured that any IP, whether granted or contained within a provisional application, will be protected through the application and review process of the competition.

Participation Terms and Conditions

All applicants will be asked to “agree” to the following Participation Terms and Conditions before submitting their applications in the Survey Monkey Apply online platform

The Artisanal Mining Grand Challenge, hereafter referred to as the “Challenge”, the Challenge administrators at Conservation X Labs (the “Administrators”) and the coalition of the partners and collaborators (the “Coalition”) request the Participant, hereafter referred to as “You” to carefully read the below Terms and Conditions for participating in the Challenge.

By registering for the Challenge, it is understood that You have read the below Terms and Conditions in full. You agree that your registration automatically grants your approval and acceptance of all of the Participation Terms and Conditions for the entire duration of the Challenge.

Application documents

All application documents submitted for the purpose of the Challenge must be in the English language only. Only complete applications received by the deadline will be considered. However, the Administrators reserve the right to consider any application after the deadline on a case-by-case basis. Application documents once submitted will not be returned. By submitting an application, you accept these conditions for participation.

Participation Fee

No fees will be charged to participate in or apply to the Challenge.

Application Deadline

The application deadline is March 1st, 2020, 11:59 PM New York, Eastern Standard Time (GMT -5hr).

Awards

The Coalition is responsible for recommending external reviewers and judges, and making recommendations on the prize-winning teams. However, as the disbursers of the prize

funds, CXL (the Administrator) is responsible for certifying and implementing all final decisions in the Challenge.

Personal Information

You give your consent to the Administrators to collect and use your personal information (name and email contact) for the purpose of administering the Challenge, within and outside your country. The Administrators shall not disclose or convey your personal information to third parties, except to entrusted members of the Coalition for purposes related to this competition. The Administrators will ask permission to share your personal information for marketing of the competition and other opportunities that may arise from participation in the Competition.

The name of the lead author on each application will be shared during the Peer Feedback stage if you are participating in that process.

International data transfer

The Challenge website is operated in the United States. By using it, You consent to have your personal information transferred, processed and stored in the United States.

Use of Artisanal Mining Grand Challenge resources

You can view, copy, print, display, transmit and distribute publications, documents and other content found on the Challenge website, including the data, information, reports, that other participants share with You, for your personal, non-commercial use, but not for any other purpose..

Information regarding application submission

By submitting your application, You are ensuring that You hold full legal rights, You are providing it gratuitously and without restriction, or possess all permissions and waivers to submit this for the purpose of the Challenge. In the case that a group of organizations, teams, or individuals are participating as one team, the team leader (submitting the application) will make this representation on behalf of all the associated members. You agree to defend and hold the Challenge and its Administrators, along with the Coalition and its representatives, agents, donors, attorneys, and affiliates ("parties") harmless if You or anyone else claims otherwise that they have rights in your design or content or if your design or content otherwise violates the law. You agree to indemnify and hold the Challenge, Administrators, Coalition, and parties harmless from any damage, cost or expense incurred in connection with any third-party claim asserted against the Challenge, Administrators, Coalition, and its parties: arising from, related to, or connected with your comments, your designs, your submission, your use of our Challenge website, or your violation of any law, rights or privacy policies. Any expenses that are incurred by the Administrators as a result of claims from third parties shall be fully recoverable from You and will result in disqualification from the Challenge.

Intellectual Property

You are responsible for applying for legal protection for any intellectual property that you believe forms part of your application. You will enter the competition at your own risk if You have not provisionally filed for intellectual property (IP) protection prior to entering the Challenge. You can be assured that any IP, whether granted or contained within a provisional application, will be protected throughout the application and review process of the Challenge. Protecting the IP of participants is a core priority of the Artisanal Mining Grand Challenge coalition.

Interaction with other participants

If You use Conservation X Labs' Digital MakerSpace, we may offer opportunities for interactive activities, which may enable You and other participants to communicate with each other directly or to post information and other material that will be visible to others outside of the Administrators. If You wish to take advantage of these opportunities and post, publish, or communicate anything outside of the confidentiality provision of the formal application process (from raw data to software to photographs and beyond), this content will be seen by other users, so please choose carefully the information that you post. Do not submit any of your content or information that You consider being confidential or proprietary through these interactive activities. The Administrators cannot be held liable, accountable or responsible for what you post on the Digital MakerSpace.

Peer feedback stage

Your application score will incorporate the feedback you provide to your fellow competitors as described in the "Peer Feedback and Review Stage" section of the Challenge Handbook. You will be given access to one or more of your peers' applications in order to provide your feedback. You are expected to treat fellow competitors' applications as Confidential Information. By submitting your application, you agree not to share any peer application information without consent from the Administrators.

You will have the chance to opt-out of allowing peers to review your application. However, all applicants (You) must participate in providing feedback to peers who agree to share their applications.

Third-party sites

If You are using the Challenge website, where we provide hypertext links to other locations on the internet, we do so for information purposes only. We are not responsible for the content of any other third-party sites or other pages linked from or linking to this site. We have not verified the content of any such sites. Following links to any other sites or pages shall be at your own risk and we shall not be responsible or liable for any damages or in another way in connection with linking. We are not responsible for webcasting or any other form of transmission received from any linked site. No endorsement or approval of any third parties or their advice, opinions, information, product or services is expressed or implied by any information on our site. You cannot set up a link from your site to our site without a prior written confirmation from us.

Governing Law

These Participation Terms and Conditions and our relationship with You will be governed exclusively by laws in force in Washington, D.C., USA. Any litigation arising out of or relating to the Artisanal Mining Challenge must be filed and pursued exclusively in the Courts of Washington, D.C., USA and you consent to the jurisdiction of and venue in such courts. If either of us resorts to legal action relating to the participation, the prevailing party will be entitled to an award of all its costs and reasonable attorneys' fees. Prior to filing any litigation claim, we both agree to seek mediation with a third party, not directly associated with the claim and selected by mutual agreement from the standing members of the review committee of the Challenge, in an effort to resolve any dispute.

Conflict of Interest Policy

1. Purpose

The Artisanal Mining Grand Challenge (herein the “Challenge”) is an international competition with the aim of spurring the development of innovations that have the potential to transform water, biodiversity, and human health issues in the ASM sector.

The purpose of this policy is to provide guidance in identifying and handling potential, perceived, and actual conflicts of interest involving the Challenge. In most instances, conflicts of interest can be avoided simply by continuing to exercise good judgment and, indeed, the Challenge relies on the sound judgment of its members to prevent any such conflict situations.

The Challenge is committed to the highest levels of integrity. Members of the Coalition of Partners and Collaborators (herein the “Partners”), the external reviewers, and judges, are expected to conduct their relationships with each other, the Challenge, and outside organizations with objectivity and honesty. The general rule is that Partners, external reviewers, and judges are obligated to avoid and disclose ethical, legal, financial, or other conflicts of interest involving the Challenge, as well as those situations that may generate a perception of conflict from a reasonable observer. They must also remove themselves, accept a request to recuse themselves from a decision, or step down from a position of decision-making authority with respect to any conflict situation involving the Challenge.

2. Scope

- This policy applies to all Partner Coalition members, external reviewers, and external judges, whether individuals or entities, of the Challenge. This does not apply to the Peer Reviewers during the Peer Feedback stage of the competition.
- The Challenge is administered by Conservation X Labs (CXL). CXL designed the application questions, the challenge process, and they are administering the competition. CXL is responsible for day-to-day coordination and decision making. It is in the best interest of CXL and its Partners to be transparent in the implementation of the Challenge.
- Partners were not integral in designing the Challenge process or application. Partners will be integral to the external review and judging process.
- Individuals from Partner organizations may be a part of a team that applies to the Challenge. Partner representatives (individuals who are the Challenge Points of Contact for CXL) may not be an applicant, either as an individual or on a team. In addition, external reviewers and judges may not be an applicant, either as an individual or on a team.

- If any of the semi-finalist individuals are affiliated with a Partner organization, then a representative of that Partner organization cannot be on the final judging panel that will make recommendations for monetary prizes or other awards. Affiliation includes, but may not be limited to, employment, acting as a representative, titled, or serving in a formal advisory role or other capacity. A representative of the partner organization can judge applicants in the first evaluation round, but they must recuse him/herself from evaluating any proposals that he/she is partnering on.
- The Partners are responsible for helping to advertise and amplify the Challenge, recommending external reviewers and judges, and making recommendations on the prize-winning teams. However, as the disbursers of the prize funds, CXL is responsible for certifying and implementing all final decisions in the Challenge.
- Partners, external reviewers, and judges who are interested in communicating or forming professional relationships with applicants will agree to engage in no communication likely to have a material impact on the Challenge with any applicant(s) or any representative of a team of applicants other than: (i) through official channels of communication established by CXL; or (ii) communications within the scope of the Challenge.
 - If communications occur, then Partners, external reviewers, and judges shall inform CXL of such communications. In addition, they agree to immediately inform CXL in the event that any applicant(s) approaches or otherwise communicates with Partners, judges, or external reviewers with regard to any unethical proposition or suggestion that would result in a conflict of interest, as described herein.
 - Partners, external reviewers, and judges are to notify CXL in writing of their intent to form professional relationships with applicants, and will work within the timeline of the Challenge to formalize and announce such partnerships after the monetary prize-winning teams are finalized.
- Current members of the Partners include: Microsoft, Gordon and Betty Moore Foundation, Conservation International, World Wildlife Fund, Wildlife Conservation Society, Wake Forest University's Center for Amazonian Scientific Innovation (CINICIA), Water Environment & Human Development Initiative (WEHDI), Amazon Conservation Association, Andes Amazon Fund, Pan American Development Foundation (PADF), Levin Sources, Mongabay, Delve, the Tech Interactive, and RESOLVE. This Policy will be considered as updated if additional Partners are added to the coalition.

3. Policy

3.1 Identification and Management of Conflict Situations

A. Basic Definitions

Generally, a conflict of interest may occur if an interest or activity influences or appears to influence the ability of an individual to exercise objectivity or impairs the individual's ability to perform his or her Challenge responsibilities in the best interests of the Challenge.

An individual is considered to have a potential conflict of interest when:

- He or she or any member of his or her family¹ may receive a financial or other significant benefit as a result of the individual's position with the Challenge;
- The individual has the opportunity to influence the Challenge's granting, business, administrative, or other material decisions in a manner that leads to personal gain or advantage;
- The individual has an existing or potential financial or other significant interest that impairs or might appear to impair the individual's independence in the discharge of their responsibilities to the Challenge; or
- The individual or any member of his or her family owns, works with, serves on the governing board of, or serves as an officer, director, or employed by a company that has applied or may apply to the Challenge as a participant.

B. Specific Relationships that May Create Conflicts of Interest

A variety of situations, affiliations and relationships may create potential conflicts of interest. Financial or other relationships (i.e., board/officer or other management positions) by a member of a Partner organization or his or her family with a company or entity that may apply to the Challenge as a participant should be disclosed on his or her Conflict of Interest Questionnaire in Exhibit A provided at the end of the document. When deciding what kind of relationships should be disclosed, consider the situation from the perspective of an outsider and whether the relationship is of such a nature that it could raise an allegation of an apparent or actual conflict of interest, and then err on the side of transparency, as disclosure helps to alleviate or avoid future misunderstandings.

C. Disclosure and Management of Conflicts of Interest

Should an appearance of impropriety or actual conflict of interest exist, appropriate actions must be taken, which will vary depending upon the particular facts. The member of a Partner organization involved in the conflict situation must work cooperatively with the Challenge administrators at CXL to achieve a resolution of the conflict issues in the best interests of the Challenge. This may include the member of the Partner organization being removed from a position of decision-making authority with respect to the conflict situation or other more serious actions, depending upon the nature of the conflict.

¹ The "family" of an individual includes his or her spouse, domestic partner, parents, siblings, children, and any other relative who resides in the same household.

3.2 Gifts or Entertainment

CXL may not receive or offer gifts, entertainment or anything else of significant value (e.g., financial payments, cash or stock awards, loans, services, fees, tickets) for the purpose of influencing the recipients of the prizes awarded by the Challenge. Gifts and entertainment (except those generally valued at \$50 or less) received from vendors, suppliers, consultants, and Challenge applicants as part of normal business practice must be declined or given to the Challenge or shared with the Challenge generally, and if acknowledgement is appropriate, acknowledged on behalf of the competition. This rule is not intended to prohibit normal business practices, such as meetings over meals, corporate items given to participants in meetings and conferences, or token hosting gifts, as long as they are of nominal and reasonable value and promote the Challenge's legitimate business interests.

3.3 Competing for the Prize

Members of Conservation X Labs, external reviewers, judges, and their family members may not compete in the Challenge.

3.4 Conflict of Interest Questionnaire

Points of contact from Partner organizations, external reviewers, and judges must complete a "Conflict of Interest Questionnaire" in Exhibit A, even if there is no current conflict of interest.

3.5 Interpretation

This policy cannot describe all conflicts of interest situations that may arise involving the Challenge. Therefore, members of CXL, the Partners, external reviewers, and judges must use good judgment to avoid any appearance of impropriety.

The following activities, while not all inclusive, includes types of potential or actual conflicts of interest that should be avoided, managed, and/or disclosed in accordance with this policy.

- Self-benefit: Using your position or relationship within the Challenge to promote your own interests or those of your family, including using confidential or privileged information gained in the course of working with the Challenge for personal benefit or gain or for the personal gain or benefit of family members.
- Influence peddling: Soliciting benefits for yourself or your family from outside organizations in exchange for using your influence to advance the interests of that organization within the Challenge.

- Other business relationships and dealings: Reviewing and judging Challenge participants in which you or your family have a significant financial or other interest or relationship.
- Outside commitments: Participating in social or political activities is not restricted as long as you participate as an individual and not as a representative of the Challenge.
- Property transactions: Directly or indirectly leasing, renting, trading, or selling real or personal property to or from the Challenge.
- Use of the Prize property for personal advantage: Using or taking Challenge resources, including facilities, equipment, personnel, and supplies, for private use or other unauthorized non- Challenge activities.
- Recording or reporting false information: Misrepresenting, withholding, or falsifying relevant information required to be reported to external parties or used internally for decision-making purposes, in order to derive personal benefits.
- Dealings with Prize participants: Personally accepting anything of value from organizations or individuals that have applied to the Challenge (unless nominal – generally \$50 or less).

Appropriate circumstances may also justify exceptions to the application of the policy. If you have any questions about this policy or its application, please err on the side of caution and transparency and seek advice from CXL prior to entering into such transaction.

4. Responsibilities

Your compliance with this policy is a condition of your work with the Challenge.

CXL oversees the implementation of this Policy in accordance with US federal law, and other requirements of grant awards.

An ombudsman has been assigned to this Challenge. If you have any specific questions/ concerns about the integrity of the Challenge application process, please feel free to address your questions and concerns to: ombudsman@conservationxlabs.org.

EXHIBIT A

Artisanal Mining Grand Challenge Acknowledgment and Acceptance of Conflict of Interest Policy Disclosures

The standard of the Artisanal Mining Grand Challenge (the "Challenge") is to recognize and address actual Conflicts of Interest as well as perceptions of Conflicts of Interest between the interests of the Challenge and personal, professional, and business interests of Challenge decision makers.

Name: _____
Address: _____

Artisanal Mining Grand Challenge Position role (Partner organization POC, reviewer, judge, other – please specify) : _____

List all businesses, nonprofit organizations, universities, and other entities that may apply to the Artisanal Mining Grand Challenge as a participant with which you or any member of your Family has a financial interest (owner, employee, consultant, royalties/license holder, or other) or for which you or any member of your Family serve on governing or advisory board. Indicate whether such business or entity does business with the Challenge and describe the relationship. Indicate whether any interest of such entities may be adverse to the interests of the Challenge. Attach additional pages if needed.

Business/entity/organization Indicate for-profit or nonprofit	Your, or your Family member's, relationship	Describe potential or actual business with the Artisanal Mining Grand Challenge. Indicate whether interests may be or are adverse.

List all persons doing or potentially doing business with the Challenge, including submitting an application, with whom you have a close family or business relationship. Indicate whether such relationship gives rise to potential Conflicts of Interest. Attach additional pages if needed

Person(s) with whom you have a close family or business relationship	Describe relationship	Describe potential or actual business with the Challenge. Indicate whether interests may be or are adverse.

(Page 2 of 2)

THANK YOU FOR APPLYING

For more information, contact us at:

water@conservationlabs.org

www.artisanalminingchallenge.com

#ASMGrandChallenge