

NATIVE BAMBOOS

A nature-based solution to jump-start the **recovery of degraded landscapes**



A novel approach for the restoration of degraded artisanal and small mining sites using native bamboos to improve environmental conditions and catalyze natural ecological succession for remediation and restoration.

The Native Bamboos approach has the potential to greatly reduce the cost, and maximize success and efficiency of ecosystem recovery and restoration. Throughout the Challenge, the team has made significant progress in optimizing the bamboo propagation process and establishing a demonstration site.

RESTORATION & REMEDIATION



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Problem

Artisanal and small-scale gold mining (ASGM) in the Amazon frequently results in abandoned and degraded mining sites, ignoring regulatory requirements to properly close mines. Without human intervention, ecosystem recovery could take centuries, and is expensive (cost per hectare is \$3000 or more).

Solution

A cost-effective approach for initiating recovery of degraded ASGM sites in the Amazon using fastgrowing native bamboo species. The innovations include training local students in propagation and planting methods, and establishing nurseries near mining sites.



Competitive Landscape

There are many restoration and tree-planting organizations and d efforts, but current landscape restoration methods that rely on native trees are slow and expensive due to the scale and severity of degradation. Native bamboos offer a cost-effective, fast-growing solution to jump-start ecological succession with the potential to access carbon markets and to produce valuable bamboo for manufacture of bamboo products.

Planting bamboo will also facilitate the return of plant and animal species, rapidly sequester carbon, contributing to climate change mitigation; and transition landscapes to higher carbon stock forests.

Market

Governments (local, regional, national), mining companies, local communities, and nongovernmental and multilateral organizations seeking restoration solutions and/or to safely close mines.

Modern lab techniques and traditional propagation are being tested for the production of bamboo plants. The team is working with Universidad San Francisco de Quito, Universidad Estatal Amazónica and Universidad Nacional de Loja at their El Padmi **Experimental Station, conducting field** testing in the Zamora-Chichipe province in **Ecuador, through their participation** in the Amazon CoLab

Future Development

Seeking funding to continue refining propagation techniques, quantify social & environmental impacts, demonstrate results in different contexts, and disseminate results and methods.

Company

EcoDecision is a social enterprise dedicated to developing new ways to fund biodiversity conservation and sustainable rural livelihoods. It is a pioneer in developing financing mechanisms for ecosystem services.



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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