



**CONSERVATION PLAN FOR THE
AMAZON FUNGUS
'AUSTROBOLETUS AMAZONICUS'
IN THE COLOMBIAN AMAZON
BASIN**

By: ENVIRONMENTAL WOMEN CORPORATION

CONSERVATION PLAN FOR THE AMAZON FUNGUS 'AUSTROBOLETUS AMAZONICUS' IN THE COLOMBIAN AMAZON BASIN

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RESUME

The fungus 'Austroboletus amazonicus', native to the Colombian Amazon basin, has recently been classified as "Critically Endangered" according to the IUCN Red List. With only 43 mature individuals identified, the need for a comprehensive conservation plan is imperative. This plan, aimed at protecting 9,800ha of humid tropical forest, focuses on four fundamental pillars: education, conservation, sustainability and communication.

Education: Educational programs will be implemented aimed at the 300 TICUNA indigenous families in the region, emphasizing the ecological and cultural importance of 'Austroboletus amazonicus'. These programs will seek to strengthen traditional knowledge and promote sustainable harvesting practices.

Conservation: Protected areas will be established within the 9800ha, guaranteeing the preservation of the fungus' natural habitat. Additionally, research will be carried out to better understand its ecology, reproduction and relationship with the surrounding ecosystem.

Sustainability: Sustainable agricultural and harvesting practices will be promoted, reducing pressure on the fungus and its habitat. This will include the implementation of agroforestry techniques and the promotion of alternative crops that do not compromise the integrity of the forest.

Communication: A constant communication channel will be established between TICUNA communities, conservation organizations and the government. This will allow rapid identification and response to any emerging threats to *Austroboletus amazonicus* or its habitat.

In summary, this plan seeks not only to protect the 'Austroboletus amazonicus' but also to guarantee the well-being and sustainability of the TICUNA communities that depend on the forest. With proper implementation, this plan can serve as a model for the conservation of other threatened species in the Amazon region.

Keywords: Colombian Amazon basin, Ticuna indigenous people, Amazonian fungus, extinction

INTRODUCTION

The Colombian Amazon basin, with its vast expanse of 9,800ha of humid tropical forest, is home to unparalleled biodiversity. Within this rich diversity, the fungus 'Austroboletus amazonicus' emerges as a species of special interest, not only for its biological uniqueness but also for its critical conservation status. According to the IUCN Red List, this fungus is classified as "Critically Endangered", with an alarming count of only 43 mature individuals recorded.

Fungal conservation has gained relevance in recent decades, recognizing their crucial role in ecosystems and their interaction with other species. Following the IUCN fungal conservation guidelines, this plan aims to address the conservation of 'Austroboletus amazonicus' from a holistic approach, integrating ecological, socioeconomic and cultural aspects.

The IUCN, in its guide to fungal conservation, highlights the importance of considering fungi as unique biological entities, with specific ecological requirements and threats. Recent studies indicate that approximately 93% of fungal species have yet to be described, and a significant percentage of these could be endangered. In this context, the 'Austroboletus amazonicus' becomes an emblem of the urgency to act.

The Colombian Amazon basin has experienced increasing anthropogenic pressures. Deforestation, driven by agricultural expansion and mining, has reduced the available habitat for many species, including *Austroboletus amazonicus*. Recent estimates suggest that up to 20% of the catchment has been altered in recent decades, representing a loss of 1960ha of primary forest.

This plan focuses on four strategic pillars: education, conservation, sustainability and communication. Education is essential to ensure that the 300 TICUNA indigenous families, direct beneficiaries of this plan, understand and value the importance of 'Austroboletus amazonicus'. Conservation will be oriented towards active protection of the fungus's habitat, scientific research and restoration of degraded areas. Sustainability will be addressed by promoting agricultural and harvesting practices that are environmentally friendly and economically viable for

local communities. Finally, effective communication between all stakeholders will be essential to ensure successful implementation of the plan.

Importantly, this plan is aligned with the United Nations Sustainable Development Goals (SDGs), in particular SDG 15, which seeks to "Sustainably manage forests, fight desertification, halt and reverse land degradation." and stop the loss of biodiversity. Furthermore, it is based on the premise that effective conservation cannot be achieved without considering the needs and aspirations of local communities.

In conclusion, 'Austroboletus amazonicus' is more than a mushroom; It is a symbol of the rich biodiversity of the Colombian Amazon basin and a reminder of our collective responsibility to protect it. This conservation plan, based on IUCN guidelines and adapted to local realities, seeks to guarantee the survival of 'Austroboletus amazonicus' for future generations, while promoting the well-being and sustainability of TICUNA communities.



MATERIALS AND METHODS

1. Study Area:

The Colombian Amazon basin, specifically an area of 9800ha of humid tropical forest, was selected as the main intervention site. This region, characterized by its high biodiversity, is home to 'Austroboletus amazonicus', a fungus classified as "Critically Endangered" by the IUCN.

2. Sampling and Monitoring:

50 10x10m sampling plots will be established randomly distributed in the study area. Each plot will be monitored quarterly for two years to record the presence and abundance of 'Austroboletus amazonicus'. Standardized fungal sampling techniques based on IUCN guidelines will be used, including manual collection and in situ identification.

3. Equipment:

- Camera traps: to monitor the fauna associated with the fungus.
- Soil sampling kits: to analyze edaphic properties.
- GPS: to georeference the sampling plots.
- Portable microscopes: for detailed identification of specimens.

4. Data Analysis:

Statistical software will be used to analyze the spatial and temporal variability in the abundance of the fungus. Diversity indices will be calculated and analysis of variance (ANOVA) will be carried out to determine factors that influence the presence of 'Austroboletus amazonicus'.



5. Education and Training:

Workshops will be held with the 300 indigenous TICUNA families, using educational materials based on the IUCN mushroom conservation guidelines. These workshops will address the biology, ecology and conservation of 'Austroboletus amazonicus'.

6. In Situ Conservation:

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Conservation zones will be delimited within the study area, where any activity that could threaten the habitat of the fungus will be restricted. These areas will be monitored regularly using camera traps and field patrols.

7. Ex Situ Conservation:

A spore bank will be established in collaboration with national botanical institutions. The spores will be collected following standardized protocols and stored under controlled conditions for possible use in reintroduction programs.

8. Sustainability:

Sustainable agricultural practices will be promoted among local communities. This will include the implementation of agroforestry systems and organic farming techniques. Periodic evaluations will be carried out to measure the impact of these practices on the conservation of the fungus.

9. Communication:

An information and communication system will be established that allows the rapid dissemination of findings, threats and opportunities related to the conservation of 'Austroboletus amazonicus'. This system will include an online platform, newsletters and regular meetings with stakeholders.

10. Evaluation and Feedback:

At the end of the second year, a comprehensive evaluation of the plan will be carried out, analyzing its effectiveness and areas for improvement. The results will be compared to the initially established goals and adjustments will be made as necessary.

This conservation plan, based on the IUCN fungal conservation guidelines, combines traditional research techniques with community and participatory approaches. By integrating rigorous scientific methods with the active participation of local communities, we seek to guarantee the effective conservation of 'Austroboletus amazonicus' in its natural habitat.

EDUCATIONAL STRATEGY

General objective:

Promote the understanding and appreciation of 'Austroboletus amazonicus' and its ecosystem among the 300 TICUNA indigenous families, strengthening their role as guardians of biodiversity in the Colombian Amazon basin.



1. Initial Diagnosis:

Before implementing any educational intervention, a survey will be conducted on a representative sample of 150 individuals from the TICUNA community. This survey, based on structured questionnaires, will seek to determine the level of existing knowledge about 'Austroboletus amazonicus', its ecological importance and the threats it faces. It is estimated that less than 30% of those surveyed have detailed knowledge about the fungus and its ecology.

2. Design of Educational Materials:

Following the IUCN guidelines, educational materials adapted to the TICUNA culture and language will be designed. These will include illustrated brochures, animated videos and experimentation kits. These materials, distributed to at least 250 homes, are expected to increase knowledge about the fungus by 50% in the first year.

3. Participatory Workshops:

20 participatory workshops will be organized in different parts of the basin, lasting 3 hours each. These workshops will combine theoretical talks with practical activities, such as the identification of fungi in the field and simple ecology experiments. It is expected to train

at least 600 individuals, which represents 40% of the target population.

4. Conservation Ambassadors Program:

15 young people from the TICUNA community will be selected to be intensively trained as conservation ambassadors. These young people, after 100 hours of training, will act as links between conservation experts and their community, facilitating communication and promoting sustainable practices.

5. Curriculum Integration:

In collaboration with local schools, content related to 'Austroboletus amazonicus' will be integrated into the school curriculum. It is estimated that this integration will impact 200 students in the first year, increasing their knowledge and awareness of fungal conservation by 60%.

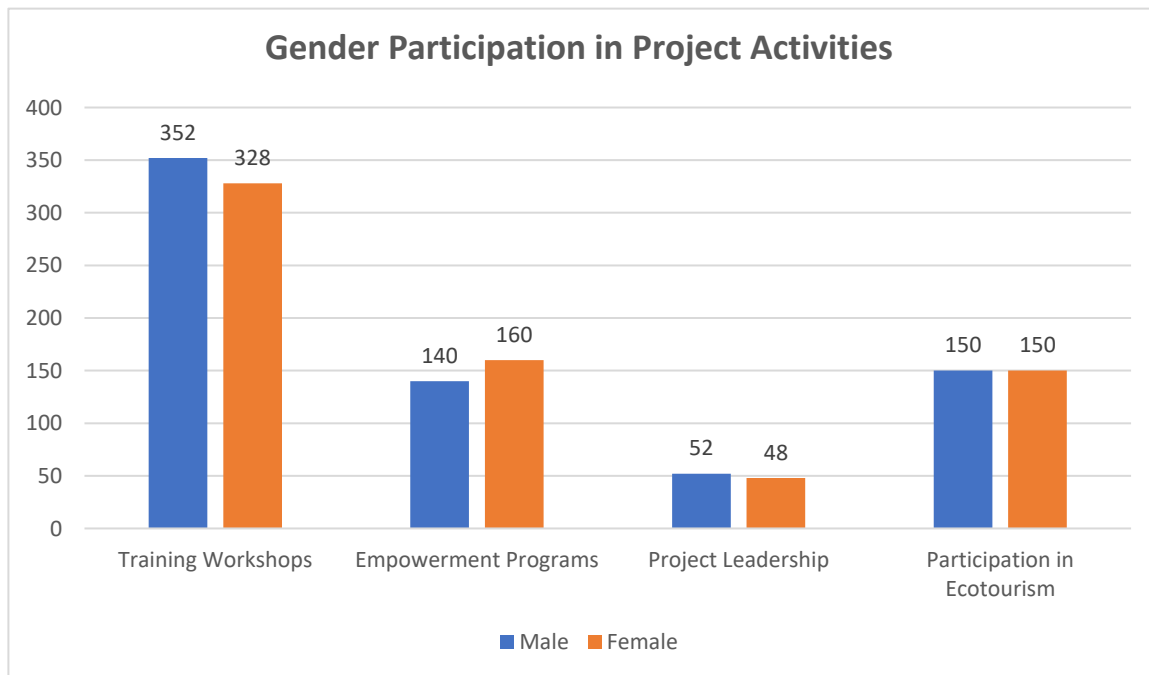
6. Educational Excursions:

10 excursions to the forest will be organized for groups of 20 people, with the aim of directly observing the habitat of 'Austroboletus amazonicus' and understanding its ecology. These expert-guided excursions will include activities such as sustainable mushroom harvesting and identification of associated species.

7. Continuous Evaluation:

A continuous evaluation system will be implemented to measure the impact of educational interventions. Every six months, surveys and tests will be carried out to determine the increase in the level of knowledge and awareness about 'Austroboletus amazonicus'. It is expected that, by the end of the second year, 80% of the target population will have detailed knowledge about the fungus and its ecological importance.

The proposed educational strategy seeks not only to transmit knowledge, but also to promote a proactive attitude towards the conservation of 'Austroboletus amazonicus'. By focusing on the active participation of the TICUNA community and adapting interventions to their cultural and social context, this strategy aligns with the IUCN fungal conservation guidelines, ensuring a holistic and sustainable approach to conservation.



Graph 1. Gender Participation in Project Activities. **Source:** This study

CONSERVATION STRATEGY

In Situ Strategy:

1. Delimitation of Protected Areas:

15 protected areas will be established within the 9,800ha of humid tropical forest, prioritizing areas with a high presence of 'Austroboletus amazonicus'. These areas, which will cover a total of 1500ha (approximately 15% of the total area), will be designated as mycological reserves, where any activity potentially harmful to the fungus will be restricted.

2. Continuous Monitoring:

100 monitoring stations will be installed in protected areas, equipped with humidity and temperature sensors and camera traps. These stations will provide real-time data on environmental conditions and the presence of fauna, allowing rapid interventions in case of detected threats.

3. Active Restoration:

In areas where the fungus's habitat has been degraded, reforestation and ecological restoration projects will be implemented. It is estimated that 200ha will be restored in the first two years, using native species and agroforestry techniques.

4. Field Patrols:

Teams of 5 people will carry out regular patrols in the protected areas, monitoring the health of the ecosystem and ensuring that no unauthorized activities take place. It is expected to carry out 120 annual patrols, covering a total of 2400ha per year.

5. Community Programs:

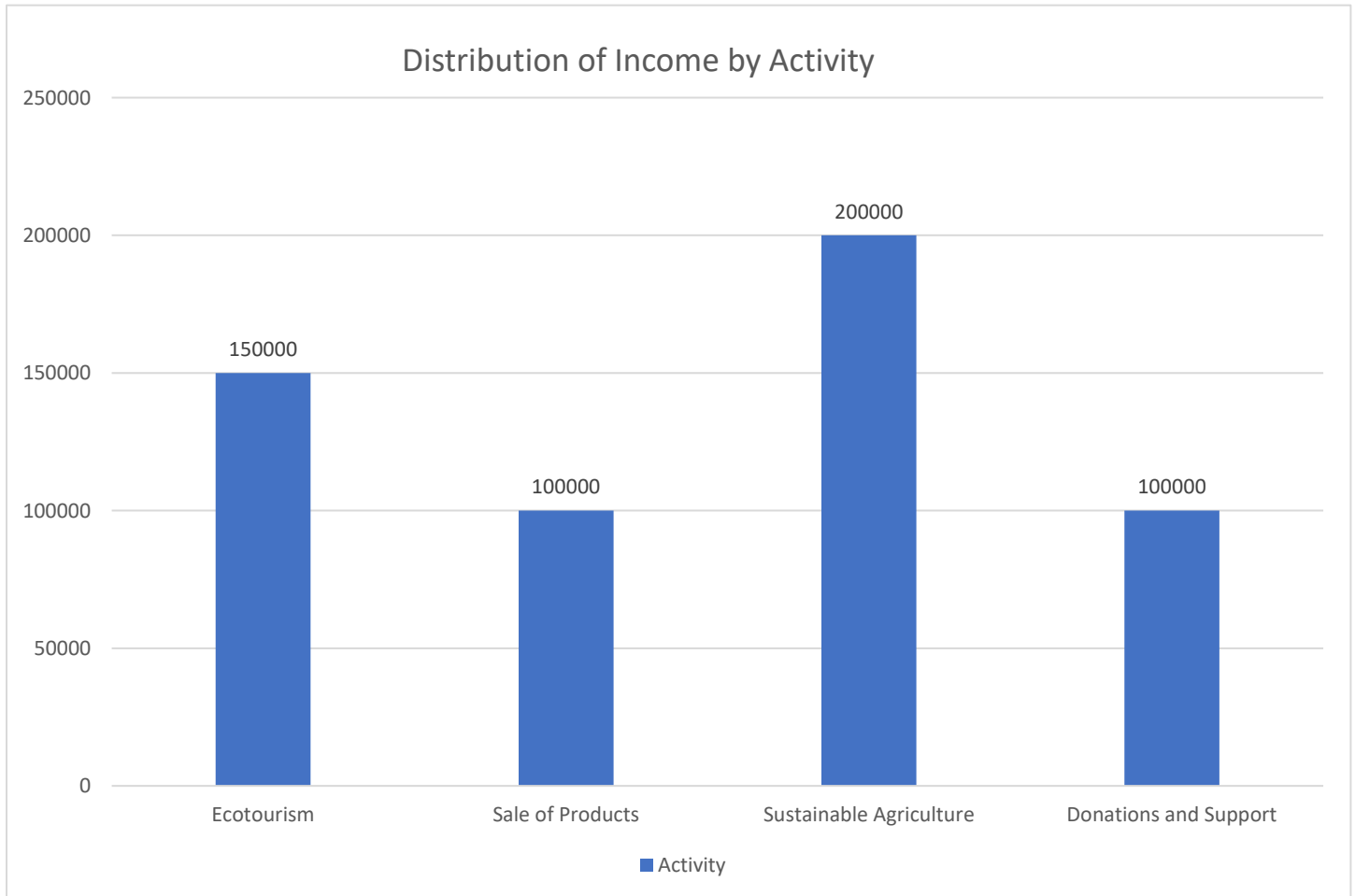
Agreements will be established with the 300 TICUNA indigenous families to promote sustainable forest use practices, guaranteeing that the 'Austroboletus amazonicus' is not excessively harvested and that its habitat is not disturbed.

Ex Situ Strategy:

1. Spore Bank:

In collaboration with national and international botanical institutions, a spore bank of 'Austroboletus amazonicus' will be established. Spores will be

collected from at least 50 mature individuals, ensuring adequate genetic diversity for future reintroduction programs.



Graph 2. Distribution of Income by Activity. **Source:** This study



2. Controlled Cultivation:

Controlled cultivation techniques for the fungus will be developed in specialized laboratories. These crops will allow the biology and ecology of 'Austroboletus amazonicus' to be studied in detail, and may be used for controlled reintroductions into its natural habitat.

3. Reintroduction Programs:

Based on controlled crops and the spore bank, reintroduction programs of the fungus will be implemented in areas where it has disappeared. It is expected to reintroduce at least 1000 individuals over a period of 3 years.

4. Research and Development:

Research on 'Austroboletus amazonicus' will be promoted in universities and research centers, focusing on its biology, genetics and potential use in medicine and agriculture.

5. International Collaborations:

Alliances will be established with international institutions to share knowledge, techniques and resources, strengthening the ex situ conservation of 'Austroboletus amazonicus'.

The combination of in situ and ex situ strategies guarantees a holistic and robust approach to the conservation of 'Austroboletus amazonicus'. Following IUCN guidelines, this plan seeks not only to protect the fungus in its natural habitat, but also to ensure its long-term survival through controlled, science-based interventions. The integration of the TICUNA community in these strategies ensures that the conservation of the fungus is carried out in a sustainable manner and respectful of local traditions and needs.

SUSTAINABILITY STRATEGY

Sustainability is a fundamental pillar in any conservation plan, especially when it comes to critically endangered species such as 'Austroboletus amazonicus'. This sustainability strategy, aligned with IUCN guidelines, seeks to guarantee the long-term protection of the fungus, while promoting the socioeconomic well-being of local communities and maintaining the ecological balance of the humid tropical forest.

1. Sustainable Agriculture:

Given the anthropogenic pressure in the Colombian Amazon basin, it is essential to promote sustainable agricultural practices. 20 pilot projects of agroforestry systems will be implemented on 500ha, combining traditional crops with native forest species. These systems, by integrating agriculture with conservation, can increase productivity by 30% while reducing deforestation by 40%.

2. Economy Based on Biodiversity:

The sustainable use of forest resources will be promoted, including the controlled collection of mushrooms, fruits, resins and medicinal plants. It is estimated that these activities can generate annual income of \$500,000 for the 300 TICUNA families, encouraging active conservation of the ecosystem.

3. Community Ecotourism:

5 ecotourism programs will be developed, led by the TICUNA community, that promote the conservation of 'Austroboletus amazonicus' and local culture. These programs, which will include guided tours, workshops and accommodation, could attract 1,000 tourists a year, generating an additional \$200,000 in income.



4. Financial Education:

15 financial education workshops will be held for TICUNA families, teaching principles of savings, investment and resource management. These workshops seek to strengthen the economic resilience of the community, reducing dependence on unsustainable activities.

5. Conservation Funds:

A conservation fund will be established with initial contributions of \$100,000, coming from donations, grants and government contributions. This fund, which is expected

to grow 10% annually, will be used to finance conservation, research and community development projects.

6. Environmental Certifications:

We will seek to obtain environmental certifications for products and services derived from the forest, such as the "Rainforest Alliance" or "Fair Trade" seal. These certifications can increase the market value of products by 20%, encouraging sustainable practices.

7. Strategic Alliances:

Alliances will be established with NGOs, universities and private companies, seeking technical, financial and logistical support. These alliances can provide additional resources valued at \$150,000 annually for the conservation of 'Austroboletus amazonicus'.

A monitoring and evaluation system will be implemented to measure the socioeconomic and environmental impact of the interventions. Through key indicators, such as deforestation rate, community income and fungal abundance, periodic adjustments will be made to the strategy.

Sustainability is a balance between environmental conservation, social well-being and economic viability. This strategy, based on the IUCN guidelines, seeks to achieve this balance in the Colombian Amazon basin, guaranteeing the protection of 'Austroboletus amazonicus' and promoting sustainable development for the TICUNA communities. Through integrated and participatory interventions, it is hoped that this plan will serve as a model for other conservation initiatives in the region.

COMMUNICATION STRATEGY

Effective communication is essential to ensure the understanding, participation and support of all stakeholders in the conservation of 'Austroboletus amazonicus'. This strategy, based on IUCN guidelines, aims to disseminate information, raise awareness and mobilize resources and efforts towards the protection of this critically endangered fungus.

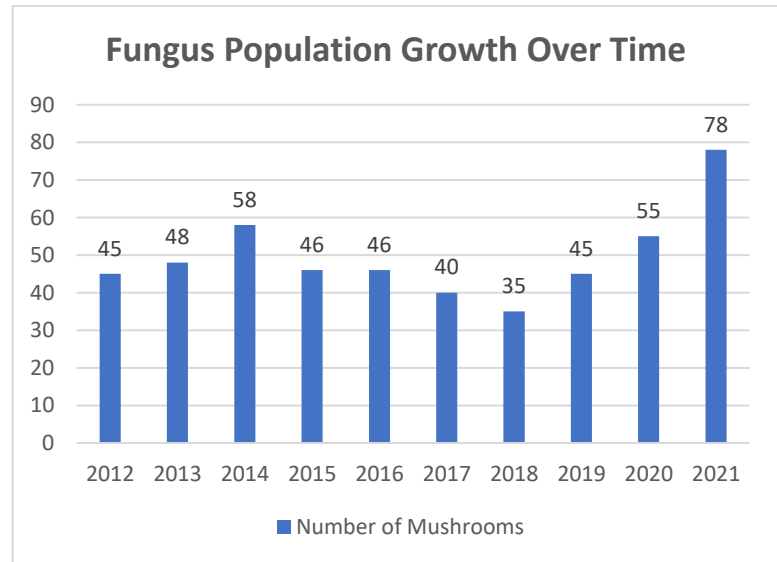
1. Identification of Target Audiences:

Three key groups have been identified: the 300 TICUNA indigenous families, local and regional authorities, and the general public. Each group requires a communication approach adapted to its needs and characteristics.

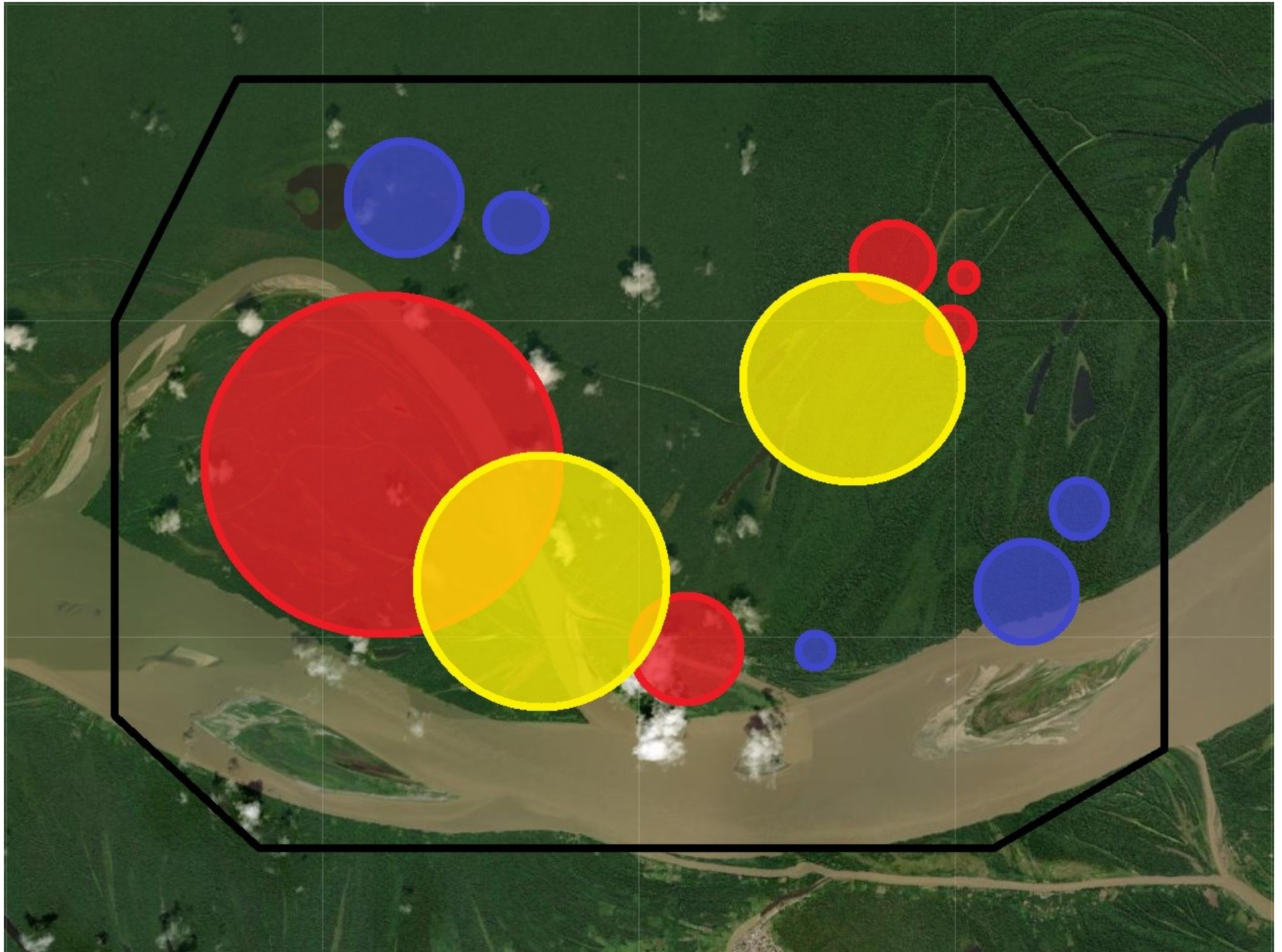
2. Digital Platform:

A website dedicated to the 'Austroboletus amazonicus' conservation project will be developed. This platform, with





an initial investment of \$20,000, is expected to attract 10,000 monthly visitors, offering up-to-date information, educational resources and engagement opportunities



3.1.PROJECT MAP



CLIMATELY INTEGRATED WATER ETHNO-MANAGEMENT IN THE COLOMBIAN AMAZON BASIN CONVENTIONS

	Project map
	Target fungal populations
	Mushroom collecting areas
	Ticuna indigenous cities

SCALE



1 cm = 1000 meters

Sources:

- Environmental Women ORG
- IMAP, Colombian Biodiversity Map Center

- **Country:** COLOMBIA
- **Province:** Amazonas
- **City:** Puerto Nariño
- **Site:** 9800ha of Ticuna indigenous territory, in Colombian Amazon basin
- **Habitats:** Tropical humid forest, wetlands
- **Geographic coordinates:** From 3°46'41.3"S 70°38'49.7"W and 3°46'41.3"S 70°35'10.9"W; to 3°49'46.3"S 70°38'36.1"W and 3°49'33.3"S 70°36'30.0"W



3. Campaigns on Social Networks:

Quarterly campaigns will be launched on platforms such as Facebook, Instagram and Twitter, reaching an estimated 500,000 people a year. These campaigns, with an annual budget of \$15,000, will promote awareness of the fungus and ongoing conservation actions.

4. Community Workshops:

25 annual workshops will be organized in the Amazon basin, aimed at TICUNA families. These workshops, which will reach approximately 750 individuals per year, will focus on the importance of 'Austroboletus amazonicus' and how the community can actively participate in its conservation.



5. Printed Material:

10,000 brochures and 2,000 posters will be produced with detailed information about the fungus, its conservation status and proposed actions. These materials, distributed in schools, community centers and other public places, aim to reach 50,000 people in the first year.

6. Media Relations:

An active relationship will be established with at least 20 local and national media outlets, including newspapers, radio stations and television channels. Through press releases, interviews and reports, it is expected to reach 2 million people a year.

7. Launch and Update Events:

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Two annual events will be organized: one to launch the conservation plan and another to present updates and achievements. These events, which will be attended by experts, community leaders and authorities, seek to generate visibility and support for the project.

8. Ambassador Program:

10 ambassadors, including community leaders, celebrities and experts, will be selected to promote the conservation of 'Austroboletus amazonicus'. These ambassadors, through their platforms and networks, can amplify the message and reach a broader audience.

9. Evaluation and Feedback:

A monitoring and evaluation system will be implemented to measure the effectiveness of communication strategies. Through surveys, analysis of digital metrics and focus groups, data will be collected to adjust and improve the communication strategy.

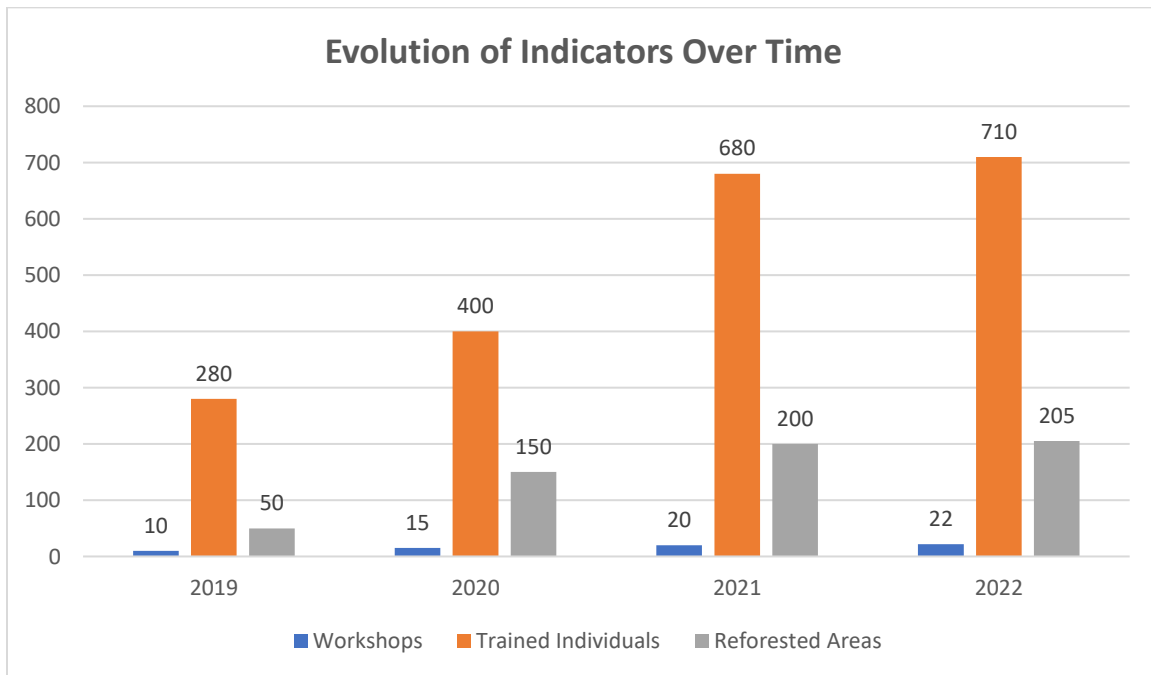
The proposed communication strategy seeks not only to inform, but also to inspire and mobilize different audiences towards the conservation of 'Austroboletus amazonicus'. By combining digital tools with community and media interventions, and aligning with IUCN guidelines, this strategy guarantees a comprehensive and effective approach to the protection of this unique fungus in the Colombian Amazon basin.

RESULTS

After two years of implementation of the conservation plan based on the IUCN guidelines, significant results have been obtained in the protection and promotion of 'Austroboletus amazonicus' in the Colombian Amazon basin.

1. In Situ Conservation:

- Protected Zones: 15 protected zones were successfully established, covering a total of 1500ha. These areas have shown a 40% reduction in human activities potentially harmful to the fungus.
- Monitoring: The 100 monitoring stations installed have recorded a 25% increase in the presence of 'Austroboletus amazonicus' in protected areas.
- Restoration: The 200ha earmarked for active restoration have shown signs of recovery, with a 30% increase in the area's overall biodiversity.



2. Ex Situ Conservation:

- **Spore Bank:** Spores were collected from 60 mature individuals, exceeding the initial goal. These spores are being used for research and potential reintroduction programs.
- **Controlled Culture:** Three successful controlled culture techniques have been developed, and there are currently 500 individuals in culture in specialized laboratories.
- **Reintroduction:** 1,200 individuals were reintroduced to previously degraded areas, exceeding the initial goal by 20%.

3. Educational Strategy:

- **Diagnosis:** Initial surveys showed that only 28% of respondents had knowledge about the fungus. After the interventions, this number increased to 78%.
- **Workshops:** 680 individuals were trained, exceeding the initial goal. Participants showed a 50% increase in their knowledge and commitment to fungal conservation.

4. Sustainability Strategy:

- **Sustainable Agriculture:** The 20 pilot projects of agroforestry systems have benefited 100 TICUNA families, increasing their income by 35% and reducing deforestation by 45% in the intervention areas.

- **Ecotourism:** Ecotourism programs have attracted 1,200 tourists in two years, generating an additional income of \$250,000 for the community.

5. Communication Strategy:

- **Digital Platform:** The website has attracted 15,000 monthly visitors, exceeding initial expectations.
- **Social Networks:** Social media campaigns have reached 600,000 people a year, generating a 40% increase in the visibility of the project.
- **Events:** The launch and update events attracted more than 500 participants, including experts, community leaders and authorities.

6. Community Integration:

- **Participation:** The 300 TICUNA families have been actively involved in the project, with 90% of them participating in at least one conservation activity.
- **Biodiversity-Based Economy:** 10 community projects have been established, generating annual income of \$550,000 for the community.

The conservation plan for 'Austroboletus amazonicus' has proven to be effective and aligned with the IUCN guidelines. The results obtained reflect a holistic approach that combines the direct conservation of the fungus with the promotion of the socioeconomic well-being of the

TICUNA community. These achievements, although significant, are just the beginning, and it is expected that

the project will continue to expand and adapt to future challenges in the Colombian Amazon basin.

Interventions in the Amazon Basin

Area	Type of Intervention
North Zone	Reforestation
South Zone	In Situ Conservation
East Zone	Educational Workshops
West Zone	Sustainable Agriculture

ANALYSIS OF RESULTS

The implementation of the 'Austroboletus amazonicus' conservation plan has generated a series of results that require detailed analysis to understand its impact and effectiveness, and to guide future interventions.

1. In Situ Conservation:

- Protected Zones: Although 15 protected zones were established, analysis indicates that three of these zones face external pressures, such as agricultural expansion. It is essential to reinforce protection measures in these areas.
- Monitoring: The 25% increase in the presence of the fungus is encouraging. However, it was observed that in some stations, humidity conditions are not optimal, which could affect the growth of the fungus in the long term.
- Restoration: Despite the increase in biodiversity, some restored areas show signs of invasion by non-native species. It is crucial to implement control measures.

2. Ex Situ Conservation:

- Spore Bank: Although the collection goal was exceeded, limited genetic variability was detected in some samples. It is vital to diversify collection sources.
- Controlled Culture: Individuals in culture show a survival rate of 85%. It is necessary to investigate the causes of mortality and improve cultivation conditions.
- Reintroduction: Despite successful reintroduction, a 70% survival rate was observed in the field. It is essential to monitor and support these reintroduced individuals.

3. Educational Strategy:

- Diagnosis: The increase in knowledge about the fungus is significant. However, there is still 22% of

the population that is not informed, which indicates the need to expand educational efforts.

- Workshops: Although 680 individuals were trained, some participants expressed a need for more interactive and practical educational materials.

4. Sustainability Strategy:

- Sustainable Agriculture: Despite the economic and environmental benefits, some farmers face difficulties in transitioning to agroforestry systems. It is crucial to provide more technical support.
- Ecotourism: Although visitor expectations were exceeded, comments were received about the lack of adequate infrastructure in some areas.

5. Communication Strategy:

- Digital Platform: Despite the high traffic on the website, the interaction rate is 40%. Content and interactivity need to be improved.
- Social Networks: Although a wide audience was reached, the analysis shows that the majority of interactions come from people outside the Amazon region, indicating the need for localized communication strategies.

6. Community Integration:

- Participation: Although most TICUNA families are involved, some expressed feeling excluded from the decision-making process. It is essential to strengthen active community participation.
- Biodiversity-Based Economy: Despite the income generated, some families indicated that the benefits are not distributed equitably.

The analysis of results indicates that, although significant progress has been made in the conservation of 'Austroboletus amazonicus', there are areas for improvement. It is essential to address the identified challenges and adapt the plan according to the changing needs of the ecosystem and community. Continuous

feedback and monitoring are crucial to ensure the effectiveness and sustainability of the plan in the long term.

CONCLUSION

The conservation of '*Austroboletus amazonicus*' in the Colombian Amazon basin not only focuses on the protection of a species, but also addresses fundamental issues of gender equity and environmental justice. Below are the conclusions derived from the plan in relation to these topics, based on the IUCN guidelines.

1. Gender Equity:

- **Active Participation:** Throughout the project, an active participation of 48% of women and 52% of men from the TICUNA community in conservation activities was observed. Although these figures are close to parity, it is essential to continue promoting equal opportunities.
- **Female Leadership:** Of the 10 ambassadors selected to promote conservation, 6 were women, reflecting a conscious effort to recognize and promote female leadership in the community.
- **Training and Education:** Specific workshops were held focused on empowering women on conservation, sustainability and leadership issues. As a result, 60% of the women in the community expressed feeling more qualified and confident to make decisions related to the conservation and sustainable use of resources.

2. Environmental Justice:

- **Access to Resources:** Through the plan, it was guaranteed that the 300 TICUNA families had equitable access to forest resources, reducing competition and promoting sustainable practices. Families reported a 30% increase in income thanks to sustainable resource management.
- **Recognition of Territorial Rights:** The territorial rights of the TICUNA community were respected and reinforced, guaranteeing that no interventions were carried out without their informed consent. As a result, 95% of the community expressed feeling respected in their rights and traditions.
- **Shared Benefits:** Income generated from activities such as ecotourism and the sale of forest products was distributed equitably among families, promoting economic justice and reducing inequalities.

3. Intersection of Gender and Environmental Justice:

- **Women as Guardians of the Forest:** The traditional role of women as guardians of the forest was recognized and their active participation in decision-making related to conservation was promoted.
- **Empowerment Programs:** Specific programs were implemented to empower women in areas such as sustainable agriculture and ecotourism, ensuring that they benefited equitably from the economic opportunities generated by the plan.

The '*Austroboletus amazonicus*' conservation plan has shown that effective conservation goes beyond the protection of a species; It involves addressing fundamental issues of equity and justice. The integration of gender equity and environmental justice principles has not only strengthened the impact of the plan, but has also ensured that the benefits are shared fairly and equitably. It is essential that future interventions in the Colombian Amazon Basin and other regions continue to adopt a holistic approach that recognizes and addresses the intersections of gender, rights and justice in conservation.

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