

FIRE CONSERVATION PLAN IN THE ETTE-ENNAKA INDIGENOUS TERRITORY

By: **WOMEN FOR BIODIVERSITY ORG**



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SUMMARY

This conservation plan addresses the escalating wildfire crisis affecting the ETTE-ENNAKA Indigenous territory in the Colombian Andean mountains, where 5,000 Indigenous beneficiaries depend on 14,400 hectares of forest currently exposed to around 250 fire outbreaks per year caused by both climate stress and human activity. The problem is driven by prolonged droughts, rising temperatures, and the continued use of agricultural burning, which together accelerate forest degradation, soil depletion, biodiversity loss, and repeated encroachment into new forest areas. The plan is grounded in a clear territorial diagnosis and a differentiated gender analysis: ETTE-ENNAKA women and girls face intensified burdens during fire seasons because water scarcity increases collection distances and time, while also raising their exposure to harassment and sexual violence and reducing their opportunities for education, leadership, and income generation. Men and boys are also affected through crop losses, declining food security, and pressure to expand unsustainable land-use practices.

In response, we propose an integrated fire management and conservation model built on four mutually reinforcing strategies. First, the technical strategy will strengthen community-based wildfire control through gender-responsive brigades, early warning systems, georeferenced monitoring, firebreaks, ecological restoration, and AI-assisted risk analysis. Second, the educational strategy will build the capacities of youth, families, and schools in ancestral forest stewardship, safe fire management, restoration, and environmental monitoring. Third, the sustainability strategy will establish long-term Indigenous governance mechanisms, including an Environmental Secretariat under the Cabildo, to ensure continuity, local ownership, and adaptive management beyond external funding. Fourth, the communication strategy will mobilize communities through culturally grounded campaigns, school outreach, visual materials, and community reporting mechanisms that transform prevention into a shared territorial responsibility. Through this approach, we aim not only to reduce uncontrolled fires, but to reposition ETTE-ENNAKA leadership—especially women’s leadership—as the driving force of forest protection, climate resilience, and community safety.

How to Cite This Document:

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INTRODUCTION

The ETTE-ENNAKA Indigenous territory in the Colombian Andean mountains faces an increasingly severe wildfire regime that threatens biodiversity, livelihoods, cultural continuity, and community safety. Covering approximately **14,400 hectares of forest**, this territory sustains around **5,000 Indigenous beneficiaries** whose food systems, water access, mobility, and spiritual relationship with the land depend on the ecological stability of the forest mosaic. Yet the territory is currently exposed to an estimated **250 forest fires per year**, driven by the interaction of climate-related stressors—especially prolonged drought, rising temperatures, and ecosystem degradation—and anthropogenic pressures such as unmanaged burning and expanding disturbance fronts. This is not an isolated environmental problem. It is a structural territorial emergency that combines biodiversity loss, governance gaps, climate vulnerability, and differentiated social impacts.



This conservation and wildfire management plan is conceived as a preventive, community-led response to that emergency. It is rooted in the understanding that fire risk in Indigenous territories cannot be addressed only through reactive suppression. It requires an integrated territorial model that links early prevention, community monitoring, gender-responsive protection, local capacity building, ecological restoration, and long-term governance. That approach is consistent with the institutional model of **Women for Biodiversity Org**, an

Indigenous- and women-led organization working through a gender-responsive, territorial, and rights-based framework at the intersection of biodiversity conservation, climate action, energy autonomy, and human rights. The organization explicitly defines its mission as protecting biodiversity and strengthening climate resilience by empowering Indigenous and local communities—especially women—through the articulation of ancestral knowledge, appropriate technologies, and community-led governance.

The relevance of entrusting implementation to Women for Biodiversity Org is demonstrated by its measurable 2025 results. According to its Annual Management Report, the organization reached **more than 5,000 Indigenous people**, engaged **300+ families**, reached **over 3,000 women, girls, and LGBTI people**, and involved **500+ children and youth** across multiple Indigenous territories in Colombia. Its interventions strengthened climate resilience through decentralized systems, improved access to essential services, reduced exposure to violence associated with environmental stress, and reinforced community governance capacity. The same report shows that the organization has already developed strategic lines of work directly relevant to this plan, including **climate justice and territorial governance, biodiversity conservation and community protection, and leadership, capacity building, and institutional strengthening**.

Critically, the organization's experience also confirms that climate impacts are differentiated by gender. Its 2025 analysis found that Indigenous women face increased care burdens and higher exposure to gender-based violence during water collection and displacement, while Indigenous girls face school interruption and heightened risk of violence. These findings are directly relevant to wildfire contexts, where smoke exposure, water scarcity, displacement, and emergency mobility tend to intensify pre-existing inequalities. For that reason, this plan includes a specific gender-differentiated

diagnosis and proposes community wildfire control mechanisms with a gender focus, alongside educational, sustainability, and communication strategies.

Ultimately, this plan seeks to reposition wildfire management as a matter of **territorial conservation, Indigenous self-governance, and climate justice**. Its core proposition is clear: the ETTE-ENNAKA community can protect forest integrity and reduce wildfire risk more effectively when ancestral stewardship is combined with technical prevention systems, strengthened community institutions, and the leadership of women and youth. In that sense, the plan is not only about controlling fires; it is about securing the ecological and political conditions for long-term territorial resilience.

GENERAL DIAGNOSIS OF THE PROBLEM OR WITH THE DIFFERENTIAL DIAGNOSIS OF GENDER

We identify wildfire as one of the most severe and recurrent environmental threats affecting the ETTE-ENNAKA Indigenous territory in the Colombian Andean mountains. The scale of the problem is already critical: approximately **250 forest fires occur every year**, affecting a beneficiary population of **5,000 Indigenous people** whose subsistence, mobility, water access, cultural practices, and territorial governance depend directly on the integrity of forest ecosystems. In operational terms, this means the territory faces an average of **4.8 fire events per week**, a frequency that exceeds the response capacity of informal and purely reactive community mechanisms. Rather than isolated emergencies, these fires constitute a structural pattern of territorial degradation that combines climatic stress and anthropogenic ignition sources.

From a technical perspective, the fire regime is driven by the convergence of **prolonged drought periods, increasing temperatures, vegetation desiccation, and recurrent human-caused ignition**, particularly from unmanaged agricultural

burning, accidental spread from land clearing, and other unsupervised uses of fire. These factors produce a cumulative effect: repeated burns reduce vegetative cover, weaken natural regeneration, increase soil erosion, degrade micro-watersheds, and accelerate biodiversity loss. In Indigenous territories, this ecological damage cannot be understood only in biophysical terms. Forest loss also means disruption of food systems, medicinal plant availability, traditional mobility routes, and the cultural and spiritual relationships that sustain collective life. We are therefore not facing only a conservation problem; we are facing a crisis of territorial continuity, climate resilience, and Indigenous self-protection.



The severity of the problem is reinforced by institutional and infrastructural deficits. The 2025 Annual Management Report of **Women for Biodiversity Org** confirms that climate impacts in Indigenous territories are no longer episodic, but structural, and are being intensified by **prolonged droughts, ecosystem degradation, service instability, and insufficient infrastructure investment**. The same report identifies persistent territorial gaps, including **limited integration of gender and ethnic perspectives in climate policies, weak coordination between national institutions and local realities, lack of community participation in climate decision-making, and fragmented responses to environmental crises**. These findings are directly relevant to the ETTE-ENNAKA context because wildfire risk management depends not only on ecological

restoration, but also on governance capacity, locally anchored monitoring systems, and sustained institutional presence.

This diagnosis also shows why a prevention-based conservation plan is urgently needed. When a territory experiences 250 fires per year, suppression alone is not a viable strategy. What is required is an integrated model that combines **community wildfire control, local early warning, environmental monitoring, technical training, public communication, and long-term governance mechanisms**. This is consistent with the institutional model of Women for Biodiversity Org, an **Indigenous- and women-led organization** that works at the intersection of biodiversity conservation, climate action, energy autonomy, and rights-based territorial governance. Its mission explicitly centers the protection of biodiversity and climate resilience through community empowerment, the integration of ancestral knowledge with appropriate technologies, and the strengthening of local institutions.



The implementing organization also brings demonstrated territorial capacity. In **2025**, Women for Biodiversity Org reported reaching **more than 5,000 Indigenous people, over 3,000 women, girls, and LGBTI people, 300+ families, and 500+ children and youth** across multiple Indigenous

territories in Colombia. It also reported strengthened community-led conservation mechanisms, improved ecosystem monitoring, stronger governance structures, and technical training in monitoring and management. In addition, its 2025 alliance framework included Indigenous authorities, the **ETTE-ENNAKA NARAKAJMANTA Indigenous Territory**, academic institutions such as the **University of Magdalena** and the **University of Chocó**, and several international foundations, demonstrating the technical legitimacy and partnership base required to implement a wildfire conservation plan of this scale.

Gender-Differentiated Diagnosis

We identify the wildfire crisis in the ETTE-ENNAKA Indigenous territory as a strongly gendered environmental emergency rather than a gender-neutral ecological event. In this territory, **5,000 Indigenous beneficiaries** depend directly on forest integrity, water availability, and climate stability, while approximately **250 forest fires per year** degrade **14,400 hectares** of forest through a combination of climatic and anthropogenic drivers. Within that population, the differentiated profile is clear: around **2,600 beneficiaries are women and girls, 2,300 are men, and 100 are non-binary Indigenous people**. This distribution matters because fire, drought, and forest degradation affect roles, exposure, workloads, and risks in unequal ways. The implementing organization's 2025 institutional analysis confirms that climate change in Indigenous territories acts as a multiplier of injustice, disproportionately affecting women, Indigenous peoples, and LGBTI communities, and that environmental degradation, gender-based violence, ethnic discrimination, and economic exclusion are structurally interconnected.

For ETTE-ENNAKA women and girls, the main differentiated impact is the intensification of unpaid care and water-collection burdens during wildfire and drought periods. As forest fires and long dry seasons reduce water availability, collection routes

become longer, riskier, and more physically demanding. The project diagnosis estimates that fire seasons increase water collection time by **55%**, forcing women and girls to walk distances of up to **1,500 meters**. This added workload is not only a time poverty issue; it is also a protection issue. The same diagnosis indicates that during these journeys, at least **60% of women** are exposed to sexual abuse and harassment. Women for Biodiversity Org's 2025 report reinforces this pattern at institutional level, identifying for Indigenous women an increased care burden and higher exposure to gender-based violence during water collection and displacement, and for Indigenous girls a higher risk of school interruption, early pregnancy, and violence in climate-affected contexts. In practical terms, this means that wildfire risk translates into reduced educational continuity, lower participation in community decision-making, fewer economic opportunities, and increased bodily insecurity for women and girls.



For ETTE-ENNAKA men and boys, the differentiated impact is concentrated in the collapse of productive systems and the pressure to reproduce environmentally destructive survival strategies. The diagnosis identifies approximately **2,400 male beneficiaries** affected by crop loss, degraded grazing and cultivation areas, and recurring climate shocks. Because the territory experiences both **65% climate-exacerbated fires** and **35% induced fires linked to agricultural and livestock burning**, the destruction of crops and soils creates a cycle in which families clear and burn new forest areas every **two years**, while overall land degradation advances at an estimated **30 hectares per month**. Men and boys

therefore face increased pressure to sustain household livelihoods under shrinking ecological conditions, which can reinforce risky land-use practices, deepen food insecurity, and heighten territorial stress. This is consistent with the organization's 2025 findings that Indigenous communities facing climate crises suffer loss of livelihoods and weakened food and water security.

For non-binary and LGBTI Indigenous people, the differentiated diagnosis points to heightened exclusion from protection and health systems under emergency conditions. Women for Biodiversity Org reports that LGBTI Indigenous people in climate-affected territories face reduced access to health and protection services, which becomes especially serious in wildfire contexts where mobility is restricted, institutional response is weak, and service delivery is already fragile. This diagnosis is not theoretical for the implementing organization: in 2025 it reached **more than 5,000 Indigenous people**, including **over 3,000 women, girls, and LGBTI people**, and documented that protection improves when climate interventions are integrated with governance, monitoring, and community alert mechanisms. For that reason, our plan must embed gender-responsive fire management, women's leadership, youth participation, and territorial protection systems as central design features, not as secondary safeguards.

TECHNICAL STRATEGY

We propose a technical strategy designed to shift wildfire management in the ETTE-ENNAKA Indigenous territory from reactive suppression to an integrated system of prediction, prevention, rapid response, and ecological recovery. The strategy responds to a landscape of **14,400 hectares** exposed to approximately **250 fire outbreaks per year**, of which **65% are climate-exacerbated** and **35% are linked to agricultural and livestock burning practices**. Under current conditions, fire is not an isolated disturbance but a recurrent driver of forest degradation, biodiversity loss, and declining soil

productivity, with an estimated destruction rate of **30 hectares per month**. For that reason, our technical approach combines ancestral ETTE-ENNAKA forest knowledge, georeferenced territorial monitoring, ecological restoration, and AI-assisted decision support within a community-governed operational model.

The first pillar is **territorial risk intelligence**. We will structure a community-based monitoring and early warning architecture capable of identifying priority fire-prone sectors before outbreaks escalate. This system will integrate historical hotspot records, participatory mapping, seasonal weather patterns, topography, combustible vegetation load, drought exposure, restoration plot vulnerability, and community field observations. The purpose is operational rather than merely analytical: to prioritize patrol routes, identify microzones requiring preventive action, and generate alerts for rapid deployment. In practical terms, the strategy transforms scattered territorial observations into a usable prevention system rooted in Indigenous governance and supported by applied technology. This approach is consistent with Women for Biodiversity Org's institutional model, which in 2025 strengthened community-led monitoring mechanisms and local climate-risk management capacities across Indigenous territories.

The second pillar is **ecological stabilization of fire-affected areas**. We will prioritize degraded microzones for intervention using a georeferenced diagnostic that assesses nutrient depletion, erosion risk, water stress, and post-fire vulnerability. On that basis, the plan foresees the application of up to **50 tons of enriched organic compost, lime amendments, and mycorrhizal fungi** in selected areas to restore soil fertility, microbiota recovery, and moisture retention. This is complemented by the reintroduction and full traceability of **40,000 native seedlings**, each linked to a unique code, georeferenced location, maintenance record, and risk

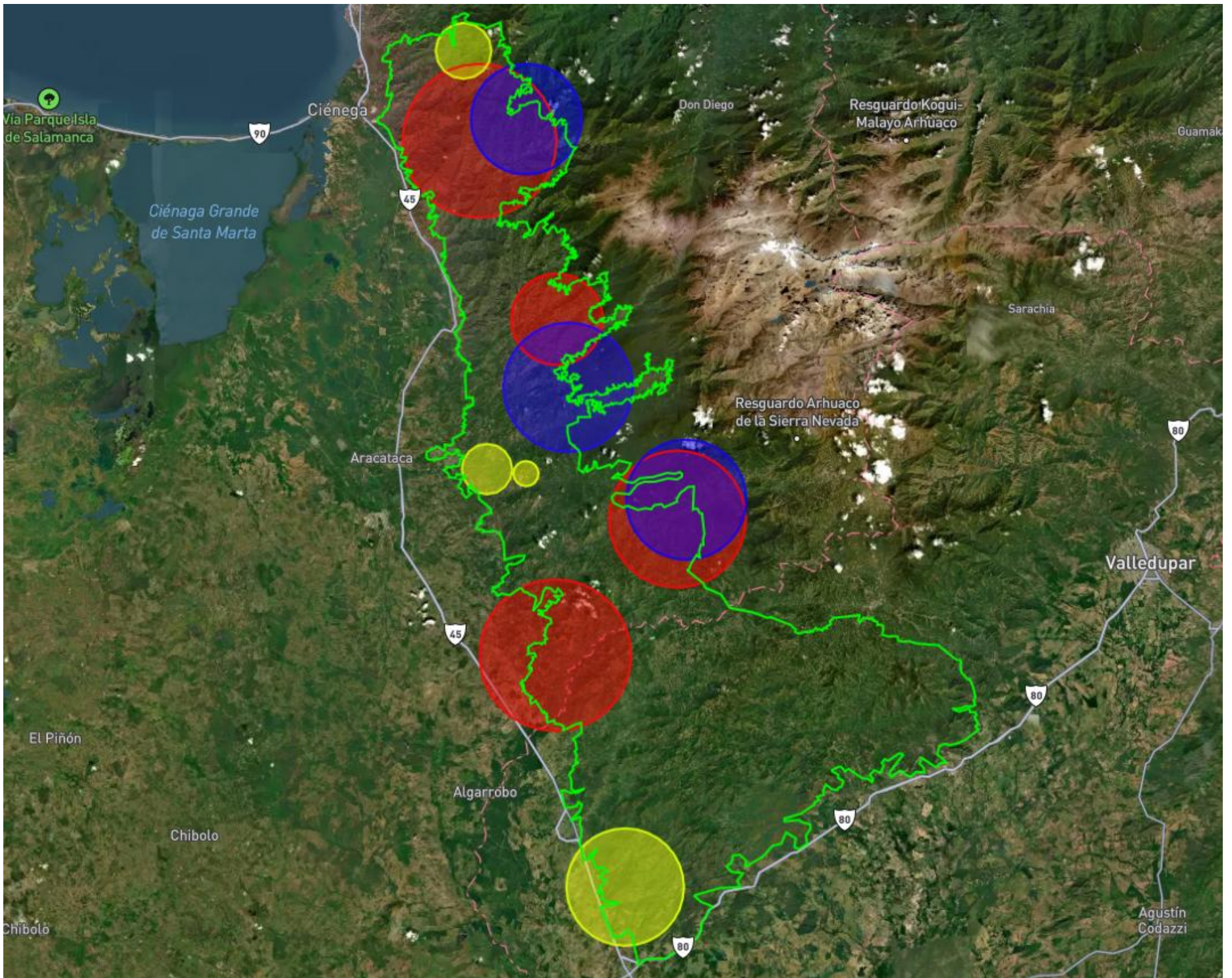
alerts for mortality, drought stress, phytosanitary damage, and herbivore pressure. In technical terms, restoration is treated not as a one-off planting exercise but as a monitored adaptive system that protects surviving forest structure while rebuilding ecological resilience.

The third pillar is **community fire control capacity with a gender-responsive approach**. The plan includes the strengthening and territorial deployment of **10 ETTE-ENNAKA community fire-response brigades**, equipped with wildfire kits and guided by prioritized patrol routes and an operational protocol for prevention, first response, and territorial reporting. Because women and girls are disproportionately affected by climate-related burdens and protection risks, the strategy is not gender-neutral: it must ensure women's participation in monitoring, alert transmission, decision-making, and environmental governance. This is aligned with the organization's 2025 evidence showing that stronger community structures, women-led governance, and local monitoring mechanisms produce more sustainable climate responses.



The fourth pillar is **containment infrastructure and technical governance**. We will establish strategic firebreak sectors in high-risk zones identified through participatory mapping and AI-assisted spread analysis, and maintain them adaptively through georeferenced inspections and community surveillance.

PROJECT MAP



FIRE CONSERVATION PLAN IN THE ETTE-ENNAKA INDIGENOUS TERRITORY

	Project area
	Climate-related Forest fire zones
	Deforested areas with degraded soils
	ETTE-ENNAKA indigenous settlements

- **Country:** COLOMBIA
- **Departments:** Magdalena
- **Cities:** Santa Marta
- 14,400 hectares of Ette-Ennaka indigenous territory
- **Geographic coordinates:** From 11°12'14.9"N 73°55'05.3"W and 11°11'40.9"N 73°26'37.7"W; to 10°57'41.6"N 73°54'13.9"W and 11°01'29.7"N 73°29'35.7"W

SCALE



1cm = 1,000 meter

SOURCES

- WOMEN FOR BIODIVERSITY ORG
- Google Maps



EDUCATIONAL STRATEGY

We design the educational strategy as the social infrastructure that makes the fire management plan viable at territorial scale. In a landscape of **14,400 hectares** exposed to approximately **250 wildfire outbreaks per year**, technical equipment alone is insufficient if the ETTE-ENNAKA community does not also build distributed knowledge, preventive routines, and local leadership capable of sustaining conservation decisions over time. For that reason, we structure the educational component as an intercultural, community-based, and gender-responsive capacity-building pathway that connects **500 Indigenous youth, 500 families, 5 regional educational institutions**, and an **Indigenous Environmental Secretariat of 10 youth leaders** under the authority of the ETTE-ENNAKA Indigenous Tribal Council. This approach is fully consistent with Women for Biodiversity Org's institutional model, which defines leadership, capacity building, and institutional strengthening as a strategic line of work aimed at sustaining processes beyond individual projects, through training of women, youth, and community leaders and the consolidation of secretariats and committees.

At the core of this strategy, we will implement **20 training days** for **500 ETTE-ENNAKA Indigenous youth aged 18–35**, with a minimum participation target of **50% women**. Each session will last **4 hours** and will combine ancestral ETTE-ENNAKA forest knowledge with practical training in ecological restoration, wildfire prevention, community monitoring, georeferenced data collection, interpretation of environmental risk, and basic use of the AI-assisted early-warning system. We are not proposing a conventional environmental awareness campaign. We are proposing an applied learning architecture in which youth become territorial operators of prevention: they will understand how to identify drought stress, seedling mortality, unsafe fire use, restoration failure, and hotspot recurrence, and how to translate those

observations into community action. The training process includes baseline and endline assessments, with the target that participants complete at least **80% of sessions** and increase their technical scores by **70%**.

The second layer of the strategy is intergenerational replication. After completing the training cycle, the **500 youth participants** will conduct peer-led outreach with **500 ETTE-ENNAKA families**, using household visits as a mechanism for practical transfer of knowledge on forest conservation, safe land-use practices, prevention of escaped burning, and recognition of early environmental warning signs. This community pedagogy is especially relevant in a context where wildfire risk is partly linked to agricultural burning and where differentiated gender impacts increase women's care burdens, girls' educational disruption, and exposure to violence during climate stress. By taking prevention messages directly to households, we reduce the gap between technical knowledge and daily practice, while transforming families into local observation nodes that can feed the monitoring system with basic field reports.



The third layer is school-based territorial culture change. We will work with **5 regional educational institutions** to install forest protection and wildfire prevention as part of the local educational environment through talks, interactive presentations,

audiovisual materials, and school observation actions. In operational terms, schools will function as community learning hubs that reinforce restoration culture, biodiversity stewardship, and climate risk literacy among students and teachers. This is aligned with Women for Biodiversity Org's demonstrated capacity: in **2025** the organization engaged **more than 5,000 Indigenous people**, reached **over 3,000 women, girls, and LGBTI people**, and involved **500+ youth and children**, while strengthening local monitoring, governance, and technical skills.

Finally, to ensure permanence, we will create an **Indigenous Environmental Secretariat** composed of **10 ETTE-ENNAKA youth** to coordinate restoration, wildfire response, and community environmental reporting. In this way, the educational strategy does not end in training delivery; it culminates in an Indigenous governance structure that keeps ancestral restoration and preventive AI under community control. That is the strategic value of this component: we enable the ETTE-ENNAKA community not only to learn about fire, but to govern prevention as a long-term territorial function.

SUSTAINABILITY STRATEGY

We design the sustainability strategy to ensure that wildfire prevention, forest restoration, and territorial monitoring remain operational after the initial **12-month** implementation period and do not depend exclusively on external financing. In the ETTE-ENNAKA territory, where **14,400 hectares** of forest are exposed to approximately **250 fire outbreaks per year**, sustainability cannot be understood only as budget continuity. It must be built simultaneously at four levels: **community governance, technical permanence, social appropriation, and long-term partnership and financing architecture**. This is consistent with the institutional model of Women for Biodiversity Org, which defines sustainability as the capacity of processes, local institutions, and governance structures to endure beyond individual projects and funding cycles, and explicitly identifies

community governance structures as a factor that increases sustainability beyond project timelines.



The first pillar is **institutional sustainability through Indigenous governance**. We will not leave the project's AI-assisted monitoring, restoration records, and fire-prevention routines as stand-alone technical tools. Instead, we will embed them within the **ETTE-ENNAKA Indigenous Tribal Council** through the formal creation of an **Indigenous Environmental Secretariat composed of 10 ETTE-ENNAKA youth leaders**. This body will consolidate monthly environmental information from brigades, households, and restoration plots; coordinate wildfire response; supervise the monitoring system; and issue **4 quarterly reports** to the Cabildo. By locating environmental decision-making inside the community's own authority structure, we ensure that forest governance remains culturally legitimate, territorially controlled, and institutionally active after the grant closes. This design directly responds to the implementing

organization's 2025 lesson that long-term resilience depends on community-led governance bodies and secretariats, not only on short-term interventions.



The second pillar is **technical sustainability through distributed local capacity**. The project will not centralize knowledge in an external consultant team. Instead, it will train **500 Indigenous youth**, at least **50% women**, and engage **500 ETTE-ENNAKA families** so that preventive monitoring, seedling traceability, soil-risk observation, and early-warning reporting become routine community functions. This means the continuity of the system will rest on a territorial network rather than on a single operator. The project already specifies

measurable appropriation targets: **500 youth** completing **20 training days**, at least **500 household-level reports**, and **40% of households** adopting safer soil and fire-management practices. This is aligned with Women for Biodiversity Org's demonstrated 2025 capacity, when it reached **more than 5,000 Indigenous people**, engaged **300+ families**, involved **500+ youth and children**, and strengthened community technical skills in monitoring and management.

The third pillar is **operational and ecological sustainability**. We will protect the investment in **40,000 native seedlings**, **10 community brigades**, and **10 strategic firebreak islands** by linking each intervention to maintenance cycles, georeferenced reporting, and adaptive management. In practical terms, sustainability means that restored plots continue receiving follow-up, brigades remain active with patrol logic and reporting protocols, and firebreaks are reinforced when risk conditions change. This is essential in a landscape where induced burning and climate-exacerbated drought create recurrent degradation and where soil depletion can force new forest clearing every **two years** if preventive management fails.

The fourth pillar is **financial and partnership sustainability**. Women for Biodiversity Org's 2025 report recognizes that one of its remaining gaps is the need to scale **long-term financing and community self-management**, while also showing that its alliances with Indigenous authorities, the **University of Magdalena**, foundations, and civil-society networks already function as a strategic asset for sustainability, accountability, scalability, and technical rigor. Our sustainability strategy therefore includes a post-project resource mobilization route based on trust-based partnerships, technical validation, and community evidence generation, so that the ETTE-ENNAKA forest protection model can attract follow-on support and become locally anchored and scalable. In this way, we do not treat sustainability as an exit plan; we treat it as the

consolidation of an Indigenous-led system capable of protecting the forest landscape over time through ancestral restoration, preventive AI, and organized territorial governance.

COMMUNICATION STRATEGY

We design the communication strategy as a territorial governance instrument rather than a conventional visibility component. In the ETTE-ENNAKA Indigenous territory, where approximately **250 forest fires occur each year** and **5,000 Indigenous beneficiaries** depend on forest integrity, water security, and climate stability, communication must do three things simultaneously: change behavior, activate prevention, and convert community evidence into public influence. In operational terms, this means that communication is not limited to disseminating messages after an emergency. It must function as a continuous system for early awareness, risk literacy, social mobilization, and advocacy. This approach is fully aligned with Women for Biodiversity Org's institutional model, which defines climate action as justice-centered and territorial, emphasizes community-based processes and Indigenous women's leadership, and recognizes that territorial data and community-generated evidence strengthen advocacy and policy engagement.

The first layer of the strategy is **community risk communication for prevention**. We will deploy a culturally grounded communication circuit capable of reaching the full target population of **5,000 people**, with specific segmentation for **500 families**, **500 youth**, women leaders, fire brigades, and educational institutions. The objective is to ensure that wildfire prevention becomes part of daily territorial practice rather than an external technical instruction. We will therefore produce and circulate practical messages on prohibited and high-risk burning periods, safe land-use practices, early signs of ignition, reporting routes, restoration care, and differentiated protection measures for women, girls, and vulnerable households during fire seasons. We propose a minimum package of **12 community**

campaigns, 20 community assemblies or awareness events, and recurring locally adapted materials in oral, visual, and school-based formats. This design is supported by the implementing organization's demonstrated experience in community awareness and rights communication, including the strengthening of community awareness in climate emergency contexts and the activation of alert and monitoring mechanisms in climate-related protection work.



The second layer is **territorial evidence communication**. We will transform field monitoring into communicable evidence through **4 quarterly territorial bulletins**, community incident summaries, georeferenced wildfire updates, and restoration progress narratives. This is essential in a territory where risk governance must be based on traceable information rather than anecdotal reporting. Women for Biodiversity Org's 2025 strategic lines already included the development of territorial data and reports to support advocacy, and

the organization reported increased community capacity to document and communicate climate impacts. Our communication strategy builds directly on that institutional capacity by ensuring that local observations from brigades, youth monitors, and households are translated into usable reporting products for community decision-making and external engagement.

The third layer is **advocacy and public positioning**. Communication must also raise the political cost of inaction on wildfire risk and position the ETTE-ENNAKA territory as a credible community-led conservation model. For that reason, we will structure outreach products for local authorities, academic allies, environmental organizations, and potential donors, linking wildfire prevention with biodiversity conservation, gender justice, and Indigenous governance. This is particularly viable because Women for Biodiversity Org already operates with partnerships that provide **advocacy, outreach, visibility, knowledge exchange, and regional and international positioning**, while its 2025 alliances strengthened its ability to operate across local, regional, and international scales.

The fourth layer is **communication for sustainability and leadership**. We will ensure that the narrative of the plan is carried by ETTE-ENNAKA voices themselves, especially women and youth, through the Environmental Secretariat, school actors, and community brigades. This is critical because the organization's 2025 report confirms that Indigenous women's leadership is a driver of territorial resilience, that community governance structures increase sustainability beyond project timelines, and that the organization already reached **more than 5,000 Indigenous people, over 3,000 women, girls, and LGBTI people, 300+ families, and 500+ youth and children** through integrated territorial interventions. In that sense, the communication strategy is not auxiliary to the plan; it is the mechanism through which the ETTE-ENNAKA community becomes the recognized

public guardian of its forest landscape through ancestral restoration, preventive intelligence, and organized territorial action.

Implementation Methodology

We will implement this conservation and wildfire management plan through an **Indigenous-led, gender-responsive, and data-driven methodology** designed for a territory of **14,400 hectares, 5,000 ETTE-ENNAKA beneficiaries**, and an estimated **250 forest fires per year**. Methodologically, we do not treat fire as an isolated emergency. We address it as a recurrent territorial risk that requires the articulation of **ancestral ETTE-ENNAKA knowledge, community governance, AI-assisted monitoring, ecological restoration, and distributed local capacities**. This implementation logic is fully consistent with Women for Biodiversity Org's institutional model, which combines biodiversity conservation, community monitoring, Indigenous governance, and long-term sustainability through community secretariats and territorial data systems.

Core methodological principles

1. **Territorial co-governance:** all actions will be coordinated with the **ETTE-ENNAKA Indigenous Tribal Council**, which provides legitimacy, territorial authorization, community coordination, and continuity beyond the project cycle.
2. **Intercultural technical integration:** we will combine ETTE-ENNAKA forest stewardship practices with soil diagnosis, georeferenced monitoring, QGIS visualization, and AI-assisted early warning.
3. **Gender-responsive implementation:** we will ensure women's participation in training, monitoring, governance, and prevention mechanisms in response to the differentiated burdens that climate and fire impose on women and girls.

4. **Phased execution:** the methodology follows a logical sequence from diagnosis and restoration to brigade deployment, education, household replication, and institutionalization.
5. **Evidence-based adaptive management:** field observations, household reports, and brigade records will feed the AI-assisted

- system to adjust response routes, restoration maintenance, and risk prioritization.
6. **Sustainability by design:** the process ends not with delivery of activities, but with the operation of an **Indigenous Environmental Secretariat of 10 youth leaders** under the Cabildo.

Implementation sequence

The methodology is organized in four operational phases. The sequence below is derived from the project design, activity logic, and implementation calendar.

Phase	Operational purpose	Main actions	Quantitative scope
Phase 1. Territorial diagnosis and setup	Establish the technical and governance baseline	Participatory mapping, priority microzone selection, soil and water diagnosis, AI configuration, coordination with Cabildo and University of Magdalena	14,400 ha assessed; 10 priority microzones selected
Phase 2. Ecological prevention infrastructure	Reduce ignition and spread risk in critical sectors	Soil restoration, reforestation, seedling traceability, firebreak installation	Up to 50 tons of compost inputs; 40,000 seedlings; 10 firebreak islands
Phase 3. Community response and capacity building	Increase local control and rapid response capacity	Equipment and deployment of brigades, youth training, school awareness	10 brigades; 500 youth; 5 schools
Phase 4. Social appropriation and sustainability	Consolidate long-term territorial management	Household outreach, community reporting, Environmental Secretariat formalization	500 families; 10 youth in Secretariat; 4 quarterly reports

Operational roles

The methodology assigns functions according to existing territorial and technical strengths. Women for Biodiversity Org already demonstrated in 2025 that it can reach **more than 5,000 Indigenous people**, engage **300+ families**, involve **500+ youth**, and strengthen local monitoring and governance systems.

Actor	Methodological role	Added value
Women for Biodiversity Org	Technical coordination, monitoring system management, training design, reporting	Indigenous- and women-led implementation with proven territorial reach

ETTE-ENNAKA Indigenous Tribal Council	Authorization, convening, brigade organization, governance oversight	Territorial legitimacy and sustainability
University of Magdalena	Technical validation, field support, academic advice	Scientific rigor and bridge with Indigenous knowledge
Youth monitors and brigades	Data collection, patrols, household replication, alerts	Distributed community intelligence and rapid response

In practical terms, this methodology allows us to move from fragmented fire response to a **community-controlled system of preventive intelligence**. That is the core implementation bet: the ETTE-ENNAKA community protects its forest landscape not only by reacting to fire, but by governing **14,400 hectares** through ancestral restoration, organized brigades, youth leadership, household awareness, and AI-assisted territorial evidence. In this way, we convert wildfire management into a durable conservation function with measurable reach, technical traceability, and Indigenous ownership.

Expected Results and Indicators

We structure expected results at two levels: **outcome-level change** and **output-level delivery**. This architecture is appropriate for a 12-month intervention covering **14,400 hectares, 5,000 ETTE-ENNAKA beneficiaries**, and a baseline of **more than 250 wildfire outbreaks per year**. It also aligns with Women for Biodiversity Org’s demonstrated institutional model: community-led monitoring, strengthened Indigenous governance, biodiversity protection, youth leadership, and measurable territorial impact reaching **more than 5,000 Indigenous people** and **500+ youth** in 2025.

Result logic

1. Outcome 1 – Fire prevention and territorial control

We expect the ETTE-ENNAKA territory to operate a community wildfire prevention, response, and monitoring system that georeferences the identified fire hotspots, deploys **10 brigades**, activates **10 strategic firebreak islands**, and reduces uncontrolled wildfire outbreaks by **95%** and response times in critical sectors by **75%**.

2. Outcome 2 – Community capacities and sustainability

We expect **500 ETTE-ENNAKA families** to adopt forest conservation and fire prevention practices, **500 Indigenous youth** to increase technical knowledge, and an **Indigenous Environmental Secretariat of 10 youth leaders** to institutionalize quarterly environmental reporting under the Cabildo. This result is fully consistent with the organization’s 2025 strategic emphasis on community secretariats, youth leadership, and locally anchored governance.

Outcome-level indicators

Outcome	Expected result by month 12	Core indicator
Outcome 1	Community wildfire system active across priority sectors of the 14,400-hectare territory	95% reduction in uncontrolled fire outbreaks; 75% reduction in response time; 10 brigades and 10 firebreak islands operational

Outcome 2	Community appropriation and continuity of forest protection mechanisms	500 families reached; at least 40% of households adopt safe fire/soil practices; 500 youth trained; 1 Secretariat created and issuing 4 quarterly reports
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Output-level indicators

Output code	Expected output	Indicator
1.1	10 priority microzones restored with AI-assisted soil, microbiota, and water treatment	At least 10 microzones treated with up to 50 tons of compost, amendments, and mycorrhizae, with monthly georeferenced records
1.2	40,000 native seedlings reintroduced with full traceability	40,000 seedlings coded, georeferenced, monitored monthly, and linked to alerts on mortality, water stress, nutrition, and phytosanitary risk
1.3	10 ETTE-ENNAKA brigades equipped and deployed	10 brigades, 10 kits , prioritized patrol routes, active protocol, and at least 60 operational reports
1.4	10 firebreak islands established and maintained	10 firebreak islands with bimonthly maintenance, validated coordinates, and functional monitoring
2.1	500 youth complete structured training	500 youth , at least 50% women , complete 80% of 20 training days and improve knowledge scores by 70%
2.2	500 families receive household awareness and reporting support	500 families reached and at least 500 community reports generated
2.3	5 schools implement awareness and observation actions	5 educational institutions complete at least one awareness session and one observation action each
2.4	1 Indigenous Environmental Secretariat formalized	Secretariat of 10 youth created, holding regular meetings and issuing 4 quarterly reports

Performance interpretation

This results framework is strong because it combines **ecological scale** (14,400 hectares), **operational scale** (10 brigades, 10 firebreak islands, 40,000 seedlings), and **social scale** (500 youth, 500 families, 5,000 beneficiaries). In strategic terms, it turns the ETTE-ENNAKA community into the organized guardian of its forest landscape through ancestral restoration, preventive AI, and Indigenous governance. That is the core value proposition of the plan: not only to fight fires, but to build a measurable community conservation system with technical traceability and long-term territorial ownership.

Means of Verification and Assumptions

We define the **means of verification (MoV)** as the documentary, digital, territorial, and institutional evidence through which we will validate progress and results across the **12-month** implementation period. In a plan covering **14,400 hectares, 5,000 ETTE-ENNAKA beneficiaries, 250 wildfire outbreaks per year, 40,000 native seedlings, 10 community brigades, and 500 families**, verification cannot rely on narrative reporting alone. It must combine **field-based evidence, georeferenced records, community governance documents, and digital traceability systems**. This is methodologically consistent with Women for Biodiversity Org's 2025 institutional approach, which strengthened local monitoring, community governance, territorial data generation,

and accountability systems, reaching **more than 5,000 Indigenous people, 300+ families, and 500+ youth and children.**

Verification principles

1. **Triangulation of evidence:** each result will be validated through at least **two or three complementary sources.**
2. **Community legitimacy:** key records will be backed by the **ETTE-ENNAKA Indigenous Tribal Council** and community structures.
3. **Technical traceability:** ecological actions will be verified through **GPS, QGIS, digital databases, and field logs.**
4. **Periodic reporting:** monthly, bimonthly, quarterly, interim, and final reports will structure evidence flow.
5. **Gender-responsive verification:** participation, leadership, and training records will be disaggregated, especially for women and youth.

Main means of verification matrix

Result code	Core indicator	Main means of verification
1.1	10 restored microzones with up to 50 tons of amendments	Soil sheets, field logs, georeferenced reports, digital system database
1.2	40,000 native seedlings with full traceability	Macro Excel database, QGIS outputs, field sheets, community reports
1.3	10 brigades with 10 kits and 60 operational reports	Equipment inventories, Cabildo minutes, brigade logs, digital monitoring system
1.4	10 firebreak islands functioning with bimonthly maintenance	Technical sheets, GPS records, photographic evidence, community surveillance reports
2.1	500 youth complete 80% of 20 training days and improve scores by 70%	Attendance records, baseline/endline tests, training reports
2.2	500 families reached and 500 household reports generated	Household visit forms, youth records, monthly consolidated database
2.3	5 schools complete awareness and observation actions	Agendas, attendance lists, institutional memos, signed school reports
2.4	1 Secretariat of 10 youth with 4 quarterly reports	Constitutive act, internal regulations, meeting minutes, reports to the Cabildo

Key assumptions matrix

Level	Critical assumption	Risk if unmet
Territorial	Community authorities maintain authorization, convening power, and governance support	Delays in field deployment and weak ownership
Technical	University of Magdalena and technical allies remain available for validation and training	Reduced methodological rigor

Social	Families, youth, and women sustain active participation	Lower uptake of prevention and monitoring practices
Institutional	Coordination gaps do not block community action	Reduced response speed and scaling capacity
Security	Wildfire seasons and gender-related protection risks remain manageable for field work	Restricted mobility and incomplete monitoring
Financial	Complementary resources and follow-on support can be mobilized after month 12	Reduced long-term continuity

In strategic terms, this framework allows us to verify not only activity completion, but whether the ETTE-ENNAKA community is effectively consolidating a **community-controlled wildfire prevention and forest conservation system**. That is the operational backbone of the plan: the community protects **14,400 hectares** through ancestral restoration, organized brigades, territorial evidence, and governance structures capable of sustaining action beyond the grant cycle.

Intervention logic	Objectively verifiable indicators	Means of verification	Critical assumptions
Overall objective: Protect 14,400 ha of ETTE-ENNAKA forest in 12 months through a 95% reduction in wildfire incidence, combining ancestral restoration and AI-assisted prevention.	By month 12, wildfire incidence reduced by 95% in prioritized sectors; forest monitoring and restoration system operational.	Final report, georeferenced fire records, Cabildo reports, digital monitoring system.	Community access, seasonal operability, institutional coordination, and security conditions remain adequate.
Specific Objective 1: Reduce wildfire incidence through prevention, control, restoration, and AI-assisted monitoring.	250 hotspots georeferenced; 10 brigades active; 10 firebreak islands operational; response time reduced by 75% .	GPS records, brigade logs, inventories, QGIS outputs, field sheets.	Brigades remain active; fire kits function properly; priority sectors stay accessible.
Output 1.1: Priority microzones restored with soil, microbiota, and water treatment.	10 microzones treated with up to 50 tons of compost, amendments, and mycorrhizae.	Soil sheets, field logs, georeferenced reports, digital database.	Soil treatment inputs are available and field conditions allow application.
Output 1.2: Native seedlings reintroduced with full traceability.	40,000 seedlings coded, georeferenced, and monitored monthly.	Macro Excel database, QGIS records, field sheets, community reports.	Seedling survival is not severely affected by extreme drought, pests, or herbivory.
Output 1.3: Community brigades equipped and deployed.	10 brigades equipped with 10 wildfire kits ; at least 60 operational reports issued.	Inventory records, Cabildo minutes, operational logs, digital platform.	Community volunteers remain engaged and local alert systems function.
Output 1.4: Firebreak infrastructure established.	10 firebreak islands maintained bimonthly with validated coordinates and monitoring.	GPS records, technical sheets, photos, vigilance reports.	High-risk sectors remain identifiable and maintenance can be carried out safely.
Specific Objective 2: Strengthen forest governance and conservation capacities among 500 families .	500 families reached; 40% of households adopt safer soil and fire practices; 500 youth trained; 1 Secretariat formalized.	Household visit forms, attendance records, tests, constitutive act, quarterly reports.	Families, youth, schools, and Cabildo sustain participation throughout the 12 months.
Output 2.1: Youth technical training completed.	500 youth , at least 50% women , complete 80% of 20 training days and improve scores by 70% .	Attendance sheets, baseline and endline tests, training reports.	Youth availability and school-calendar compatibility remain stable.
Output 2.2: Household awareness and community reporting activated.	500 families reached and at least 500 reports generated.	Visit formats, youth logs, monthly digital consolidation.	Households accept visits and basic reporting tools are used consistently.
Output 2.3: School-based awareness implemented.	5 schools complete at least one awareness session and one observation action each.	Agendas, participation lists, school memoranda, signed reports.	School authorities authorize activities and maintain coordination.
Output 2.4: Indigenous Environmental Secretariat created.	Secretariat of 10 youth created, with monthly meetings and 4 quarterly reports .	Constitutive act, internal regulations, meeting minutes, reports to Cabildo.	The Cabildo formally endorses the Secretariat and youth leadership remains active.

Conclusions

We conclude that wildfire management in the ETTE-ENNAKA Indigenous territory must be treated as a structural conservation priority rather than as a sequence of isolated emergency responses. The territorial diagnosis shows that approximately **14,400 hectares** of forest are under pressure from more than **250 wildfire outbreaks per year**, driven by both climate stress and anthropogenic burning. In this context, continued reliance on reactive control alone would be technically insufficient and institutionally unsustainable. What the evidence supports instead is an integrated model that combines risk prevention, ecological restoration, community-based response, environmental education, and Indigenous governance under a single territorial conservation framework.

We also conclude that the wildfire crisis is deeply differentiated by gender and social role. For ETTE-ENNAKA women and girls, fire seasons and drought intensify unpaid care burdens, increase water collection time by **55%**, extend travel distances to **1,500 meters**, and expose at least **60% of women** to harassment and sexual violence during collection routes. At the same time, men and boys face the productive consequences of crop loss, soil depletion, and the repeated pressure to expand agricultural burning into new forest areas. This confirms that any technically sound fire management plan must include a gender-differentiated approach not as an annex, but as a central condition of effectiveness, justice, and territorial protection.

From an implementation perspective, we conclude that the plan is viable because it translates a large-scale territorial problem into measurable community and ecological actions. The proposed model combines **10 restored microzones, 40,000 traceable native seedlings, 10 ETTE-ENNAKA community brigades, 10 strategic firebreak islands, 500 trained youth, 500 families reached through household outreach, 5 educational institutions**, and an **Indigenous Environmental Secretariat of 10 youth leaders**. This architecture gives the plan both operational scale and governance depth. In other words, we are not only proposing to extinguish fires; we are proposing to build a permanent community-controlled system for preventive intelligence, forest restoration, and adaptive territorial management.

We further conclude that the implementing capacity of **Women for Biodiversity Org** strengthens the credibility of the plan. The organization's 2025 report shows that it reached **more than 5,000 Indigenous people**, engaged **over 3,000 women, girls, and LGBTI people**, involved **500+ youth and children**, strengthened community-led conservation mechanisms, and consolidated leadership and governance processes led by Indigenous women. Its strategic model is explicitly grounded in environmental justice, community evidence, biodiversity conservation, and long-term institutional strengthening, which are precisely the dimensions required for a wildfire prevention and restoration initiative of this scale.

Finally, we conclude that the strongest value of this plan lies in its core proposition: **the ETTE-ENNAKA community can protect its forest landscape more effectively when ancestral restoration is combined with organized community brigades, environmental education, Indigenous governance, and AI-assisted early warning**. That is the real idea-force behind the document. We are not presenting a short-term firefighting project; we are presenting a territorial conservation model that protects biodiversity, reduces differentiated climate risk, strengthens women's and youth leadership, and leaves installed capacities that can endure beyond the initial **12-month** cycle. This conclusion is fully aligned with the organization's own lessons learned in 2025: that climate action must be justice-centered, that community governance structures increase sustainability, and that territorial data and community-generated evidence are essential for long-term resilience.

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