



Indigenous Climate Action Plan

*A call from Mother Earth to care for what is sacred,
defend life and honor the future*



Federación por la
Autodeterminación
de los Pueblos Indígenas

Financiación por:



Ministerio Federal
de Medio Ambiente, Protección de la Naturaleza,
Seguridad Nuclear y Protección de los Consumidores



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del Bundestag alemán

The Silent Cry

Text written by Jera Miri (Ivana Bogado), a communicator from the Mbya Guaraní People, from the Pindó community and a member of the Association of Indigenous Communities of Itapúa.

These days in September have been the worst days. I say this because of the animals that died while the forests were burning. I had never felt so much pain from seeing so much fire across the forest.

Waking up and seeing Ñamandú* (the creator deity) no longer shining as before is the saddest thing. It is a silent cry saying that he no longer has much strength to shine. Each morning, there is only smoke; it is like looking at a painting without the colors that give it life.

From the depths of my soul and heart, I suffer from the helplessness of not being able to do anything. All I can do is pray and ask Ñande Ru* (Our father). My only consolation is that the souls of the animals and of those trees that died will no longer suffer so much; they are now free from danger, wherever their souls may be.

Sadness and anger fill me when I think and see that we human beings are unable to care for Mother Earth; we are responsible for her agony. So much deforestation, so much burning, so much land leasing, poisons that cause so much harm to the earth—Mother Earth endures so much. Mother Earth is like a mother: she gives everything for her children. Despite so much harm, she continues to forgive us. We owe her so much, and I would like to ask her forgiveness for all the harm.

The planet gives us so much, and we only destroy it. We give greater importance to material things—and what about tomorrow? I do not even want to imagine the future if this continues.

I get a lump in my throat thinking of so many animals that have died, wild plants burning, trees falling from the wounds of fire that wither their leaves. It is as if I could hear the silent cry of their souls.

It is incredible how far the greed, ambition and hunger of the white man have gone, like a thirst that cannot be quenched, that will not end until Mother Earth herself is destroyed. Let us listen more closely to that silent cry of the Mother; let us do something for her, before it is too late!

* Terms in Guaraní

Indigenous Climate Action Plan

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FAPI – Federation for the Self-Determination of Indigenous Peoples

With the support from:

IKI Small Grants – International Climate Initiative

This publication presents the 2025 update of the Indigenous Climate Action Plan, originally developed in 2020 through the participation of Indigenous Peoples in Paraguay. The updated Plan reaffirms its founding principles, incorporates lessons learned over the past five years, and revises climate action priorities in response to the growing challenges posed by climate change.

The preparation of this publication was made possible through the support of IKI Small Grants – International Climate Initiative.

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Acronyms

AECID — Spanish Agency for International Development Cooperation

ACIDI — Association of Indigenous Communities of Itapúa

ACIGAP — Association of Guaraní Indigenous Communities of Alto Paraná

AAGAC — Ava Guaraní Alto Canindeyú Association

ANDE — National Electricity Administration

ASADEC — Angaité Community Development Association

ASG — Environmental, Social and Governance

BACN — Library and Central Archive of the National Congress

BCP — Central Bank of Paraguay

BAAPA — Upper Paraná Atlantic Forest

BID — Inter-American Development Bank

CMNUCC — United Nations Framework Convention on Climate Change

CNAEP — National Classification of Economic Activities of Paraguay

CNCC — National Climate Change Commission

DINASAPI — National Directorate for Indigenous Peoples' Health

DNCC — National Directorate of Climate Change

FAO — Food and Agriculture Organization of the United Nations

FAPI — Federation for the Self-Determination of Indigenous Peoples

FEPOI — Federation of Indigenous Peoples and Organizations of the Paraguayan Chaco

FIDA — Indigenous Foundation for Agricultural Development

FRICC — Regional Indigenous Federation of the Central Chaco

GPS — Global Positioning System

GCF — Green Climate Fund

GEI — Greenhouse Gases

GIT — Paraguay Green Taxonomy Steering Group

IKI — International Climate Initiative

INFONA — National Forestry Institute

INDI — Paraguayan Indigenous Institute

IPCC — Intergovernmental Panel on Climate Change

MAG — Ministry of Agriculture and Livestock

MADES — Ministry of Environment and Sustainable Development

MEC — Ministry of Education and Sciences

MOPC — Ministry of Public Works and Communications

OIT — Organización Internacional del Trabajo

OPIT — Payipie Ichadie Totobiegosode Organization

OPEN — Organization of the Enlhet Norte People

OMI — Mismo Indígena Organization

PIMA — Agricultural Market Integration Project (MAG)

PIAC — Indigenous Climate Action Plan

POUT — Single Municipal Territorial Plan (acronym to be verified)

PNUD — United Nations Development Programme

SENASA — National Environmental Sanitation Service

SENATUR — National Secretariat of Tourism

SENAVE — National Service for Plant and Seed Quality and Health

SNPP — National Professional Promotion Service

UE — European Union

WWF — World Wildlife Fund

CHAPTER 1. Introduction

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The Indigenous Climate Action Plan (PIAC, from its Spanish acronym) was developed through a participatory process involving the Federation for the Self-Determination of Indigenous Peoples (FAPI) and its member associations. The Plan reflects the collective voice of Indigenous communities confronting the impacts of climate change in their territories and proposing their own approaches to adaptation, mitigation, and resilience, grounded in their worldviews and their right to self-determination.

The PIAC is part of FAPI's broader efforts to build organizational and political capacity and ensure that Indigenous Peoples are recognized as key actors in national and international climate action. It reaffirms communities' commitment to defending life, conserving ecosystems, protecting forests, and managing their territories sustainably in accordance with their cultural, spiritual, and collective values.

Originally developed in 2020, the PIAC was updated in 2025 to provide a broader and more in-depth perspective. This update incorporates lessons learned in recent years and addresses environmental changes that have transformed Indigenous territories, including growing threats such as prolonged droughts, forest fires, the loss of water sources, deforestation, and soil degradation.

The 2025 update was conducted through an extensive participatory process. The technical team and facilitators visited Indigenous territories to engage directly with communities and member associations, respecting their cultural diversity and decision-making processes. Workshops held in the Eastern Region and the Western Region (Chaco) provided opportunities to share experiences, discuss climate impacts, exchange knowledge, and develop proposals. Intergenerational dialogue, in which Indigenous women and young people played a particularly prominent role, helped bring ancestral knowledge together with contemporary technical approaches and develop a more comprehensive understanding of current climate challenges.

The Plan covers:

- The Plan's overall purpose, objectives, and scope;
- The background and context of its development;
- FAPI and its member associations;
- Indigenous perspectives on climate action, self-determination, and the relationship among land, forests, and territory;
- The participatory methodology used to update the Plan;
- Regional assessments of climate change impacts, loss and damage, and responses in the Eastern Region and the Western Region (Chaco);
- The main conclusions and climate priorities identified by Indigenous Peoples represented through FAPI's member associations.

More than a technical document, the PIAC is a declaration of life. It affirms that climate change is not only an environmental challenge but also a matter of climate justice and human rights. Indigenous Peoples in Paraguay are not only affected by the climate crisis; they also offer solutions rooted in a worldview that places forests and nature at the heart of their ways of life, knowledge, and reciprocal relationship with the environment. Their vision seeks to restore balance between people and nature, reaffirming their essential role in protecting life and the Earth.

FAPI coordinated the development of the Plan, working alongside technical specialists with support from IKI Small Grants – International Climate Initiative. The 2025 update marks another step toward climate action grounded in Indigenous Peoples' own worldviews, recognizing the value of their territories, ancestral wisdom, and full participation in building a sustainable future for Paraguay.

CHAPTER 2. Background

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In 2020, the Federation for the Self-Determination of Indigenous Peoples (FAPI) developed, through a participatory process, the first Indigenous Climate Action and Disaster Risk Reduction Plan. The document was conceived as a planning and policy advocacy tool to raise awareness of Indigenous Peoples' concerns and proposals regarding the impacts of climate change in Paraguay. Developed with the support of partner organizations, it became a strategic instrument that integrated Indigenous worldviews with national and international frameworks, strengthening the capacity of Indigenous Peoples to respond to climate change in an appropriate, relevant and culturally manner.

Five years later, updating the Plan became essential. New climate scenarios reveal more severe and frequent impacts, particularly in the territories inhabited by Indigenous communities, which have fewer mechanisms available to confront or adapt to these changes. Prolonged droughts, recurrent floods, fires and the accelerated loss of forests are among the most critical manifestations of this reality. These are compounded by lessons learned from implementation of the PIAC-DRR (2020), changes in the country's political and legal framework, and growing Indigenous participation in decision-making spaces concerning environmental and climate policies.

The 2025 version is therefore presented as an expansion and deepening of the path already underway, consolidating Indigenous peoples as a central actor in building resilience and defending collective rights.

One of the main changes introduced in this update is an adjustment to the Plan's approach, recognizing that natural disasters form part of a broader climate crisis. These phenomena are therefore integrated within a unified climate action perspective encompassing prevention, risk management and community resilience, rather than being treated as separate dimensions¹.

Likewise, this version incorporates a specific component on Loss and Damage, aimed at making visible the irreversible impacts of climate change on the territories, cultures and ways of life of Indigenous Peoples. This approach is framed within recent international developments, where Loss and Damage has gained importance in negotiations under the United Nations Framework Convention on Climate Change (UNFCCC). Its inclusion in the 2025 Plan seeks to reflect the true magnitude of these impacts and underscore the urgency for States and the international community to assume responsibility for the losses suffered, moving toward fair, effective and culturally appropriate mechanisms for redress.

¹ In the 2020 version, the document was entitled "Indigenous Climate Action and Disaster Risk Reduction Plan." In the 2025 update, it is renamed "Indigenous Climate Action Plan," as disaster risk management is considered implicit within the comprehensive climate action approach

CHAPTER 3. About FAPI and Its Member Associations

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The Federation for the Self-Determination of Indigenous Peoples (FAPI) is made up of thirteen associations representing Indigenous Peoples in Paraguay. These associations provide spaces for the organization and coordination of communities that share cultural identity, history and territory. They are present across nine departments of the country, encompassing both the Eastern Region and the Western Region or Chaco, reflecting the ethnic and territorial diversity that characterizes the Indigenous Peoples of Paraguay (FAPI, 2019).

In the Eastern Region, seven associations are members of FAPI:

Table 1. FAPI member associations in the Eastern Region

Association	Indigenous People	Department
1. Association of Indigenous Communities of Itapúa (Spanish acronym: ACIDI)	Mbya Guaraní	Itapúa
2. Tekoa Yma Association	Mbya Guaraní	Caazapá
3. Association of Mbya Guaraní Indigenous Communities Che Iro Ara Poty	Mbya Guaraní	Caaguazú
4. Pai Tavyterâ Rekopave Indigenous Association of Capitán Bado	Pai Tavyterâ	Amambay
5. Association of Avá Guaraní Indigenous Communities of Alto Canindeyú (Spanish acronym: AAGAC)	Avá Guaraní	Canindeyú
6. Association of Ava Guaraní Communities of Alto Paraná (Spanish acronym: ACIGAP)	Avá Guaraní	Alto Paraná
7. Yvy Paraná Rembeype Association	Avá Guaraní	Canindeyú and Alto Paraná

Source: FAPI records, 2019

In the Western Region or Chaco, the six associations that are members of FAPI are:

Table 2. FAPI member associations in the Western Region

Association	Indigenous People	Department
1. Payipie Ichadie Totobiegosome Organization (Spanish acronym: OPIT)	Ayoreo Totobiegosome	Alto Paraguay
2. Organization of the Enlhet Norte People (Spanish acronym: OPEN)	Enlhet Norte and Nivacle	Boqueron and Presidente Hayes
3. Regional Indigenous Federation of the Central Chaco (Spanish acronym: FRICC)	Enlhet Norte and Nivacle	Presidente Hayes, Boqueron
4. Mismo Indigena Organization (Spanish acronym: OMI)	Enxet Sur	Presidente Hayes
5. Angaité Community Development Association (Spanish acronym: ASA-DEC)	Angaité	Presidente Hayes
6. Federation of Indigenous Peoples and Organizations of the Paraguayan Chaco (Spanish acronym: FEPOI)	Nivacle	Boqueron

Source: FAPI records, 2019

These associations play a key role in the political, social and cultural representation of their communities and serve as the bodies through which collective decisions are channeled regarding territory, access to natural resources, the defense of rights, and participation in national and international climate and environmental advocacy processes.

The internal organization of Indigenous Peoples is based on traditional structures that, in many cases, are coordinated with modern forms of associative representation. Extended families and community assemblies have historically been at the core of Indigenous political and social life. In the Eastern Region, for example, the assembly known in Guaraní as *Aty Guasu* brings together family and community leaders with consultative and deliberative functions, reflecting the collective exercise of authority.

With regard to organizational structure:

- In the Eastern Region, associations are made up of communities, and each community comprises a group of families. These communities are represented by their respective male or female leader, within a structure that facilitates territorial coordination and organizational strengthening while respecting the cultural particularities and representative mechanisms of each People.
- In the Western Region or Chaco, communities are made up of villages, and the associations are in turn composed of those communities. Each community has a male or female leader who represents it in broader organizational spaces such as associations. In some cases, small villages made up of families are linked to a main or “large village,” which acts as a center for cohesion and decision-making.

The Indigenous associations that make up FAPI represent collective interests, channel demands to national authorities and strengthen Indigenous participation in decision-making spaces. In this way, Indigenous governance systems interact with State systems of representation, while ancestral authority—exercised by spiritual and community leaders—coexists with newer forms of political and social organization that support Indigenous Peoples in Paraguay in defending their territorial, environmental, and cultural rights.

Figure 1. Geographic location of FAPI member associations



Source: FAPI records, 2019

CHAPTER 4. Climate Action from the Perspective of Indigenous Peoples

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Indigenous climate action does not arise solely as a recent response to the global crisis, but rather as the continuation of an ancestral way of inhabiting and caring for the land. This connection has enabled Indigenous Peoples to preserve ecosystems and sustain life for generations, long before the modern concept of “climate action” existed.

This chapter examines two central themes: first, the self-determination of Indigenous Peoples as a guiding principle recognized in national and international legal frameworks; and second, the relationship among water, land, forests, and territory, which Indigenous worldviews regard as inseparable elements essential to climate change adaptation and mitigation..

4.1. The Self-Determination of Indigenous Peoples

The participatory nature of the Indigenous Climate Action Plan reflects the exercise of the right of Indigenous Peoples to decide on their own development and to participate in processes affecting their lives, territories and collective future. This principle is grounded in the right to self-determination recognized by the National Constitution of Paraguay and by international human rights instruments. Articles 62 to 64 of the Constitution recognize the pre-existence of Indigenous Peoples in Paraguay, guarantee their identity and organizational autonomy, and their right to participate freely in the political, economic, social and cultural life of the country, in accordance with their own forms of organization and worldview.

At the international level, ILO Convention No. 169, “Indigenous and Tribal Peoples Convention,” ratified through Law No. 234/93, establishes the obligation to consult Indigenous Peoples whenever legislative or administrative measures that may directly affect them are envisaged (Art. 6). It also recognizes their right to decide their own development priorities and to participate in the formulation, implementation and evaluation of plans and programs that concern them (Art. 7). The Convention also protects ownership and possession of traditionally occupied lands, as well as the use and management of their natural resources. Finally, it prohibits the relocation of communities without their free and informed consent (Arts. 13-16).

Likewise, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007) reinforces these principles by recognizing the right of Indigenous Peoples to self-determination, to maintain and strengthen their political, legal, economic, social and cultural institutions, and to participate fully in all decisions affecting their lives, lands and territories. The Declaration establishes the principle of Free, Prior and Informed Consent (FPIC) for any State or private initiative that may affect their lands, territories, resources, cultures or ways of life (Arts. 10, 19, 26 and 32). It also recognizes their collective rights to land, territory and natural resources, and to preserve their traditional knowledge, governance systems and ways of life.

At the national level, the Constitution of the Republic of Paraguay explicitly recognizes the collective rights of Indigenous Peoples. Article 62 affirms the existence of Indigenous Peoples as groups with their own cultural identity, predating the formation of the State. Article 63 guarantees the preservation and strengthening of their ways of life, social organization, education systems, cultures, languages and traditions. Article 64 recognizes their right to communal ownership of the lands they traditionally occupy, establishing that such lands are inalienable, not subject to prescription, indivisible and immune from seizure. Article 65 guarantees their right to participate in the country's economic, social, political and cultural life, while Article 66 requires the State to respect and protect the integrity of their lands and natural resources. Article 67 likewise enshrines their right to receive State assistance to ensure their development and improve their quality of life in accordance with their own priorities.

Law No. 904/81, "Statute of Indigenous Communities," develops these constitutional mandates by regulating the internal organization of communities, recognition of their legal personality, the right to communal ownership of their lands, protection of their natural resources, and the State's obligation to guarantee their social, cultural and economic well-being. The law also establishes procedures for titling, expanding and protecting Indigenous lands, as well as mechanisms for participation and consultation.

Decree 1039/2018 approves the "Protocol for the Consultation and Free, Prior and Informed Consent Process with the Indigenous Peoples of Paraguay," establishing the procedure to be followed to ensure that any measure, project or decision that may affect them is discussed in good faith, in advance, freely and with adequate information, with the aim of obtaining consent for activities to be carried out in their territories.

Consistent with these frameworks, the Plan was developed under the leadership of the Indigenous organizations themselves, strengthening their role as central actors in climate action and ensuring that the proposed measures respond to their worldviews, priorities and the defense of their territories.

4.2. The relationship between Land, Forests, Indigenous Territories and Climate Change

For Indigenous Peoples, land is much more than productive soil: it is the sacred place of origin where life and spirituality are sustained. The forest, in turn, provides food, medicine, water and energy; water is the vital element that enables forests to exist and is a source of protection and natural balance. Territory brings these elements together as an indivisible whole encompassing habitat, culture, history and spirituality; it is the space where knowledge is transmitted and where Peoples exercise their self-determination. From this perspective, caring for the land, forest and territory means caring for the community and safeguarding life for future generations.

Through this integral relationship, Indigenous Peoples have historically contributed to climate change mitigation and adaptation, strengthening global resilience to climate phenomena. Unfortunately, deforestation, biodiversity loss and lack of access to secure lands threaten this harmony and increase their vulnerability.

Indigenous Peoples therefore face a dual challenge: they are among those most exposed to climate impacts, while at the same time their territories and knowledge are key to confronting the crisis. Guaranteeing territorial rights, strengthening self-determination and protecting forests is not only an act of historical justice; it is also a strategic condition for climate mitigation and adaptation, now and in the future.

CHAPTER 5. How Was This Update of the Indigenous Climate Action Plan Carried Out?

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The methodology used to update the Indigenous Climate Action Plan was based on a participatory approach with a gender perspective, fostering dialogue and collective reflection through community workshops in each FAPI member association.

At each workshop, a dedicated space was created for women and youth to share their perspectives on climate change challenges in greater depth, based on their roles within the community. The results of these dialogues were subsequently shared in plenary with the entire community, integrating diverse perspectives into a collective reflection. This flexible dynamic allowed each community to guide the process according to its own organizational forms and self-determination, thereby ensuring respect for cultural and territorial particularities.

The participatory process for developing the Plan was organized into the following main phases:

1. Communities' perception of the climate phenomena with the greatest impacts

During the workshops and dialogue spaces, communities shared their perceptions of observed changes in the climate and the extreme events that affect them most.

2. Assessment of progress in adaptation and mitigation

Actions implemented under the PIAC-DRR (2020) were collectively reviewed, identifying achievements, challenges and lessons learned.

3. Identification of priority issues and actions toward 2030

Through oral narratives and group dynamics, leaders, women and young people reflected on emerging climate change priorities, incorporating an intergenerational perspective. Climate change impacts on Indigenous territories were identified by combining testimonies and narratives with quantitative elements where possible.

4. Mapping of Loss and Damage

The concept of Loss and Damage is used internationally to describe the adverse impacts of climate change that cannot be avoided through mitigation or adaptation measures (IPCC, 2014). This category encompasses both:

- **Losses:** irreversible effects representing the permanent loss of natural, material or cultural elements.
- **Damage:** reversible or repairable effects that may be partially or fully restored (UNFCCC, 2013; UNDP, 2022).

From a comprehensive perspective, losses refer to impacts involving the disappearance or permanent loss of use of an asset or value - material, environmental or spiritual - while damage involves temporary or reversible deterioration that may be mitigated or recovered (IPCC, 2022).

In the context of Indigenous Peoples, this distinction takes on a broader dimension because material, environmental and cultural assets are intrinsically intertwined with identity, spirituality and territorial continuity (FAPI, 2023).

Accordingly, the assessment of Loss and Damage in the Indigenous Climate Action Plan (PIAC) considers three interdependent dimensions:

- 1. Material / economic:** includes housing, crops, infrastructure and livelihoods.
- 2. Environmental:** refers to forests, biodiversity, soils, water and ecosystem balance.
- 3. Cultural / spiritual:** includes symbolic values, sacred places, traditional practices and ancestral knowledge.

Table outlines the criteria used to distinguish between loss and damage, drawing on international frameworks and the PIAC's intercultural approach.

Table 3. Criteria used for Loss and Damage

Criterion	Indicates loss when...z	Indicates damage when...
Duration	The impact is permanent or cannot be reversed.	The impact can be mitigated or reversed with time or resources.
Nature of the affected asset	The affected assets or values cannot be replaced (spiritual, ecosystem or symbolic).	The affected goods or services can be replaced (infrastructure, crops, surface water).
Recoverability	There are no technical or natural measures capable of restoring the asset to its original form.	Restoration is feasible through repair or environmental recovery measures.
Scale of impact	It affects the entire system or community (structural, long-term impact).	It affects specific or localized components (partial, temporary impact).
Symbolic dimension	It breaks an essential cultural or spiritual continuity, generating loss of identity.	It temporarily weakens or alters practices without eliminating them completely.

One of the methodological contributions of this document, compared with the previous Plan, is the identification, selection and non-monetary quantification of Loss and Damage, expressed in units or specific affected elements.

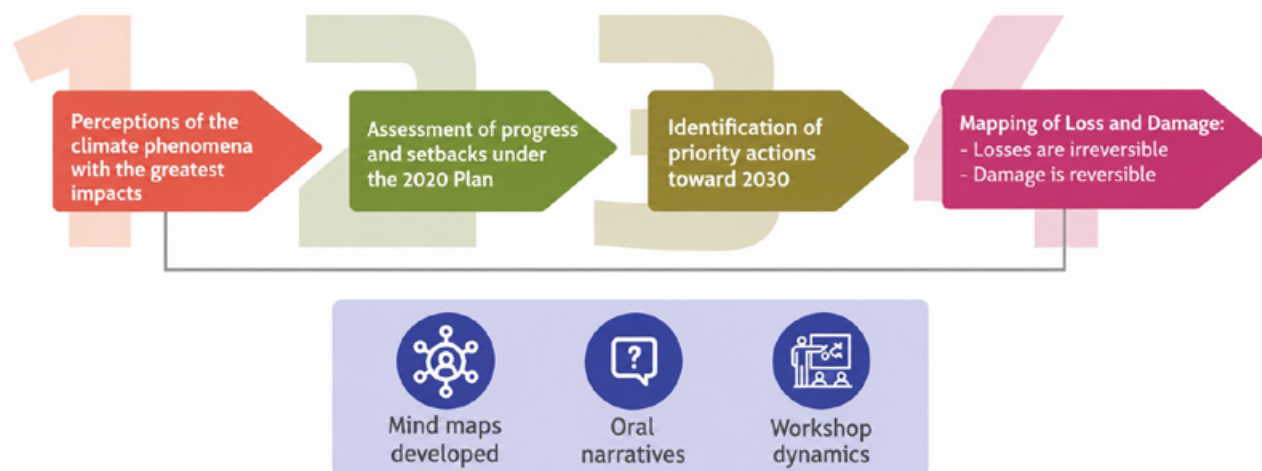
Assigning a monetary value to each loss or instance of damage would be highly complex within the scope of this Plan, as such an assessment would need to cover all FAPI member associations and communities. Such an estimate would require a detailed process for identifying and analyzing multiple variables, supported by specialized environmental, social and economic valuation techniques, which go beyond the objectives of this update.

To carry out these phases, specific participatory methods were used:

- Mind maps, collectively developed to represent community knowledge and perceived changes in climate and territory.
- Oral narratives, which gathered stories, testimonies and lessons learned from community members, including women and young people.
- Workshop dynamics, which made it possible to define future priorities and co-create action strategies.

Figure 2 provides an overview of the methodology used to update the Indigenous Climate Action Plan.

Figure 2. Summary of the methodological process used to update the PIAC



The document is organized around two main regional sections, reflecting Paraguay's geographic and ecological diversity. Chapter 6 covers the Eastern Region, characterized by a humid subtropical climate, while Chapter 7 focuses on the Western Region (the Chaco), which has a drier, semiarid climate. In both regions, the participatory process involved FAPI member associations, whose contributions were documented separately to reflect their distinct cultural and territorial contexts.

CHAPTER 6. Eastern Region: Assessment, Loss and Damage, and Climate Change Actions

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The Eastern Region is home to more than half of Paraguay's Indigenous population and is the area with the highest density of communities belonging to FAPI (FAPI, 2020). Its population is predominantly young and rural, with a high dependence on forests, water sources and ecosystems that sustain traditional livelihoods. Climatically, the region is characterized by a humid subtropical environment, with abundant rainfall distributed throughout most of the year and moderate temperatures. These conditions favor biodiversity, but also create vulnerability to storms, flooding and deforestation processes.

In the Eastern Region, FAPI is made up of seven Indigenous associations representing different communities and Peoples: the Association of Indigenous Communities of Itapúa (ACIDI), Tekoa Yma Association, Cheiro Ara Poty Association, Pai Tavytera Reko Pave Association (APTR), Ava Guaraní Alto Canindeyú Association (AAGAC), Association of Ava Guaraní Communities of Alto Paraná (ACIGAP), and Yvy Paraná Rembeype Association.

6.1. Association of Indigenous Communities of Itapúa (ACIDI)

The Association of Indigenous Communities of Itapúa (ACIDI) brings together 25 communities located mainly in Paraguay's Eastern Region and belonging to the Mbya Guaraní People. Its work focuses on defending territory, protecting forests and preserving Guaraní culture, while promoting community planning processes and participation in dialogue and decision-making spaces.

These communities directly face the impacts of climate change, which in recent years have intensified through prolonged droughts, biodiversity loss and degradation of natural resources, affecting their livelihoods, food security and the conservation of ancestral territories.

6.1.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most::

Table 4. Prioritization of extreme climate events

Priority climate event	Extreme climate events	Description
	Prolonged droughts	Communities have reported a marked decrease in surface water and groundwater. Many springs have dried up, with reductions of up to 40% in some cases. At present, only half of the population has access to safe drinking water, a situation aggravated by prolonged droughts.
	Heavy rainfall and storms	These events have damaged traditional homes and community infrastructure, including water tanks and a bridge, and have caused losses of subsistence crops such as beans, maize and watermelon. Storms have also led to school closures and affected family safety.
	Localized frosts in low-lying areas	Although less frequent, frosts have affected crops such as yerba mate and citrus to a lesser extent, mainly in low-lying areas. Communities on higher ground reported no significant impacts.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

6.1.2 Progress and Setbacks in Climate Action

During the Plan update process, important experiences were identified that represented progress, as well as limitations in addressing climate change. They are summarized below:

Table 5. ACIDI progress and setbacks

Area	Progress	Setbacks or limitations
Agricultural production and agroforestry systems	Thirty-two communities were strengthened through agricultural production and agroforestry projects with support from Manos Unidas. Two communities implemented restoration projects, and one carried out forest enrichment with yerba mate through conservation funds and support from the Inter-American Foundation (IAF) and AECID.	Lack of continuous technical assistance and project follow-up prevented the sustainability of the systems implemented.
Territorial planning and governance	Development of the Mbya Guaraní Life Plan to strengthen territorial management and climate change adaptation by integrating ancestral knowledge. Participation in Municipal Territorial Planning processes (POUT), especially in Alto Verá, where Indigenous territories are included in planning.	Participation still depends on external institutional support, and not all municipalities provide effective mechanisms for Indigenous inclusion.

Access to housing and basic services	Engagement with the Ministry of Urban Planning, Housing and Habitat to build housing culturally adapted to community needs, avoiding linear layouts that force families to relocate. Electricity provision is also planned for one community.	Deficiencies persist in access to drinking water and sanitation, with fewer than 50% of communities having these services.
Territorial management and conservation	Receipt of 500 hectares of land with native forests from Guyra Paraguay and BirdLife, designated for conservation and sustainable use.	External pressures on forests and insufficient resources for territorial management and monitoring hinder long-term conservation.
Animal production and economic diversification	Implementation of a poultry production project with incubators (112 chicken coops). The experience generated lessons on the need for greater technical training and family support. Sustainable honey production has also been achieved in several ACIDI communities.	Only 30% of families continued the project after receiving inputs. Lack of technical follow-up and appropriate beneficiary selection affected sustainability.
Institutional participation and local coordination	Greater engagement with local governments and other institutions in territorial planning and productive projects, strengthening ACIDI's presence in regional coordination spaces.	Limited management capacity and scarce own resources constrain sustained participation in advocacy spaces.

Community Indigenous brigades for forest-fire prevention and monitoring	With support from IKI Small Grants, FAPI has begun establishing community Indigenous brigades expected to be fully operational by the end of 2026. Their central role will be to monitor heat hotspots in their territories using appropriate information and tools for early risk detection and, based on this monitoring, activate the mechanisms established in the Fire Prevention Protocol.	The process is still at an initial stage. Operational capacities remain limited. Community brigades may provide an immediate response, but support from the competent institutions will remain essential for comprehensive fire response and risk management.
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6.1.3 Loss and Damage

The assessment identified events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. The following table summarizes material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Table 6. Identified Loss and Damage

Climate/environmental event	Year(s)	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Forest fires	2020 and 2024	Losses: between 700 and 1,000 ha of forests, agricultural plots and grasslands burned, destroying food, beehives and wildlife. Damage: homes affected, temporary loss of livelihoods and food, and smoke-related health impacts reducing work capacity. Forty honey-production boxes were lost. An estimated 70% of the Tekoha Guasu was affected.	Losses: disappearance of habitats and native species. Damage: soil degradation and ash contamination.	Losses: sacred sites and prayer places. Damage: spiritual disconnection and collective mourning.

Climate/environmental event	Year(s)	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Prolonged droughts and heat waves	2022–2023	Losses: 50% of cassava, maize and bean crops; deaths of small livestock; 40% reduction in yerba mate production (4 ha affected); and loss of 50% of 5 ha of beans affecting 10 families. Damage: reduced income and seasonal hunger.	Losses: drying of streams, wells and springs. Damage: erosion, loss of soil fertility and reduced vegetation cover.	Losses: interruption of traditional agricultural practices. Damage: discouragement and loss of confidence in natural cycles.
Agricultural pests (whiteflies, larvae, ants, locusts)	Since 2020, intensified in 2024	Losses: cassava crops and family gardens destroyed. Damage: food shortages and loss of native seeds.	Losses: disruption of natural ecological balance. Damage: proliferation of pests due to disappearance of natural control species.	Losses: symbolic connection with fertile land. Damage: weakening of traditional agricultural practices.
Stream contamination from soybean spraying	2024–present	Losses: loss of safe water sources for drinking and irrigation. Damage: gastrointestinal illnesses and loss of nearby crops.	Losses: fish and aquatic fauna mortality. Damage: degradation and contamination of waterways.	Losses: waters considered sacred. Damage: symbolic rupture in the relationship with water.

Climate/environmental event	Year(s)	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Diseases affecting small livestock	2021–2022	Losses: deaths of domestic animals and loss of dietary protein. Damage: economic and nutritional impacts on families.	Losses: loss of traditional domestic biodiversity. Damage: spread of disease.	Losses: disruption of teko porā (good living). Damage: fear, vulnerability and spiritual impacts.
Severe storms and strong winds	2023	Losses: destruction of cassava crops, traditional homes and a community bridge. Damage: temporary material and food losses.	Losses: vegetation cover in agricultural plots. Damage: erosion and loss of fertile soil.	Losses: trust in natural elements. Damage: distress and a sense of helplessness.
Housing deterioration caused by termites	—	Losses: structures affected by termites due to forest loss and reduced availability of resistant timber. Damage: progressive deterioration of homes.	—	—

Climate/environmental event	Year(s)	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Decline in water systems	—	Losses: damage to a 20,000-liter tank and declining groundwater levels. Damage: need for deeper drilling to access water. Communities such as Pindó, which previously did not experience shortages, now face water scarcity.	Losses: depletion of springs and wells. Damage: reduced flow and deterioration of water quality.	Losses: loss of the spiritual bond with water as a source of life. Damage: collective concern about territorial balance.

6.1.4 New Priorities Identified

As part of the Plan update process, ACIDI communities identified initiatives needed to respond to urgent challenges, improve their climate-change adaptation capacities and strengthen their climate resilience. These priorities are presented below in detail.

Safe drinking water supply and sanitation

Fewer than half of ACIDI's member communities currently have access to safe drinking water and basic sanitation services. Declining groundwater levels, together with stream contamination, have worsened the situation and directly affected health, food security and family well-being.

Ante esta realidad, las comunidades proponen:

- construction of artesian wells and pumping systems;
- expansion of water-storage tank capacity;
- installation of adequate sanitation facilities;
- community training in sustainable water management and use.

These actions seek to guarantee the right to safe water and strengthen community resilience in the face of the water crisis affecting their territories.

Integrated agroforestry technology package for yerba mate and beekeeping

Prolonged droughts and extreme frosts have drastically reduced agricultural production in ACIDI's Mbya Guaraní communities, causing significant losses in traditional crops such as yerba mate, beans, maize and citrus. These climate conditions, combined with deforestation and loss of forest cover, have affected soils, reduced water availability and limited family income sources.

- establishment of community nurseries and provision of yerba mate and citrus seedlings;
- integration of beekeeping as a complementary activity;
- continuous training in agroforestry management, harvesting, processing and marketing;
- reforestation and conservation of forest-based production systems.

The proposed integrated agroforestry systems aim to diversify production by combining shade-grown yerba mate, beekeeping, and reforestation with citrus. Natural forest shade protects crops from frost and drought, while these systems retain soil moisture, reduce erosion and promote forest regeneration. Beekeeping provides a sustainable economic alternative based on native flowering species and supports pollination. The initiative also strengthens traditional forest-management knowledge and the training of women and young people, contributing to recovery of the Tekoha Guasu, food sovereignty, biodiversity conservation and intergenerational knowledge transmission.

Sustainable small-livestock production and fish farming for food security and climate resilience

ACIDI's previous experience with poultry production and incubators showed that production projects become difficult to sustain over time without ongoing technical support and careful selection of participating families. Nevertheless, small-livestock production remains essential for dietary diversification, nutrition and local income in the face of increasing climate vulnerability.

- construction of chicken coops, pens and ponds;
- provision of materials, feed and fingerlings;
- continuous technical training in management, animal health, feeding and reproduction;
- close technical follow-up and integration with agroforestry systems.

The project prioritizes chickens, pigs and fish, especially pacú, using production systems compatible with local ecosystems. It will increase food availability during droughts or crop losses and promote active participation and leadership by women and young people.

Restoration of natural fibers and Supporting of Mbya Guarani handicrafts

Progressive loss of native forests has drastically reduced the availability of plants traditionally used for Mbya handicrafts. Natural fibers such as tacuarí, tacuapi and guembepi are increasingly scarce because of deforestation and climate change, affecting both household income and intergenerational transmission of cultural knowledge.

- identify the native fiber species most commonly used;
- establish restoration plots with native vegetation;

- conduct intergenerational training and knowledge-transmission workshops;
- create community handicraft-production spaces and promote participation in local fairs.

The initiative combines ecological restoration with cultural strengthening, helping recover forest connectivity while preserving traditional handicraft practices.

Young artisan training program

There is a growing risk of traditional knowledge being lost among younger generations of the Mbya Guarani People because of declining natural resources and changes in community ways of life.

- intergenerational learning spaces with artisans, knowledge holders and elders;
- training in traditional weaving, braiding and basketry techniques;
- sustainable collection of raw materials;
- practice of traditional Mbya games and integration of cultural and environmental values.

The program seeks to revitalize culture and strengthen young people's sense of belonging so that Mbya art, creativity and identity remain alive in the territory.

Reinforcing Mbya spirituality, traditional medicine and cultural practices

Forest degradation, disappearance of medicinal plants and loss of sacred sites have deeply affected the spiritual and cultural life of the Mbya Guarani People. Traditional medicine, collective prayers, songs and ceremonies have been restricted by the lack of suitable spaces and disruption of environmental balance.

- recover and cultivate medicinal plants;
- restore sacred sites and ceremonial spaces;
- hold community workshops involving knowledge holders, spiritual leaders, women and youth;
- document songs, prayers and knowledge in the Mbya Guarani language.

These actions seek to preserve spiritual memory, strengthen social cohesion, identity and teko porã (good living), and reaffirm the inseparable relationship between spirituality and nature.

Recovery of forest cover for multiple purposes

Recurring forest fires and accelerated deforestation in ACIDI territory have fragmented forests, reduced biodiversity and weakened the environment's natural capacity to protect communities from storms, droughts and strong winds.

- plan and install living barriers and biological corridors;
- produce native seedlings in community nurseries, prioritizing ecologically, medicinally or culturally valuable species such as tajy (lapacho), urunde'y and yvyrá pytã;
- restore degraded areas and ecological connectivity;
- promote community participation and training in forest management.

The initiative seeks to restore essential ecosystem services such as shade, pollination, fibers and wild foods, while integrating environmental restoration, food security, climate adaptation and protection of the Tekoha Guasu.

Improved housing using resistant materials

Storms, strong winds and heavy rainfall have significantly damaged traditional Mbya Guarani homes, leaving many families vulnerable and at risk.

- build and improve housing using more durable materials;
- ensure community participation in design and construction;
- respect traditional territorial organization and avoid externally imposed linear layouts;
- integrate sustainable local construction practices and materials compatible with the environment.

The approach combines housing safety with respect for the Mbya worldview and Tekoha Mbya Guarani (territory of life), strengthening autonomy and community resilience.

Development of local markets for Mbya Guarani products

ACIDI communities have had successful experiences at local and regional fairs, selling up to 80% of their production, with natural honey standing out for its purity and sustainable origin. However, the lack of stable marketing channels and a promotion strategy limits fair income opportunities.

- develop an Indigenous community marketing strategy;
- organize periodic Indigenous fairs and permanent solidarity-based sales spaces;
- train producers in marketing, value addition, labeling and visual identity;
- promote honey, handicrafts, shade-grown yerba mate, citrus, vegetables and other sustainable products with Mbya identity.

The initiative seeks to consolidate a sustainable Indigenous economy circuit, strengthen local livelihoods, increase visibility of the Mbya People and value products arising from a balanced relationship with nature.

Access to sustainable energy for community development

Several ACIDI communities still lack stable access to electricity, limiting family well-being, school operations and productive projects requiring refrigeration, lighting or basic equipment. This also constrains access to information, communication and educational opportunities, particularly for women and young people.

- install electricity systems in selected communities in coordination with competent institutions;
- prioritize sustainable technologies such as solar photovoltaic systems;
- provide training in use, management and maintenance;
- promote community participation in system management.

The proposed measures aim to improve quality of life, support productive and educational activities, reduce reliance on nonrenewable energy sources, and advance a just and inclusive energy transition for Indigenous Peoples in Paraguay.

Table presents the new priorities defined by ACIDI communities for the 2025–2030 period, highlighting the prioritized initiatives, their central challenges and the main planned actions.

Table 7. Summary of ACIDI's new priorities (2025–2030)

Proposed initiative	Challenge / description	Planned actions
Safe drinking water supply and sanitation	Fewer than half of the communities have drinking water and sanitation. Declining groundwater and stream contamination affect health, food security and quality of life.	Artesian wells and pumping systems; larger storage tanks; adequate sanitation facilities; community water-management training.
Integrated agroforestry technology package for yerba mate and beekeeping	Droughts and extreme frosts have reduced production of yerba mate, maize and citrus; deforestation and soil loss constrain production and income.	Community nurseries; yerba mate and citrus seedlings; beekeeping; agroforestry and marketing training; reforestation and forest conservation.
Sustainable small-livestock production and fish farming	Previous poultry production had low sustainability because of insufficient technical assistance, although small livestock remain important for food and income under climate stress.	Chicken coops, pens and ponds; materials, feed and fingerlings; continuous technical support; integration with agroforestry systems.
Restoration of natural fibers and strengthening of Mbya handicrafts	Loss of native forests has reduced fiber species such as tacuarí and tacuapi, affecting handicrafts and transmission of traditional knowledge.	Identify native species; establish restoration plots; intergenerational weaving and braiding workshops; community production and sales spaces.
Young artisan training program	Traditional knowledge is being lost and youth participation in cultural practices is declining.	Intergenerational workshops; handicraft, collection and traditional-game training; integration of cultural and environmental values.
Reinforcing spirituality, traditional medicine and Mbya cultural practices	Loss of forests and sacred sites weakens traditional medicine, prayers and ceremonies.	Recover medicinal plants; restore sacred and ceremonial sites; workshops with spiritual leaders and youth; document knowledge in Guarani.

Proposed initiative	Challenge / description	Planned actions
Recovery of forest cover for multiple purposes	Deforestation and fires have fragmented forests, reducing biodiversity and natural protection from climate extremes.	Living barriers and biological corridors; native seedlings; restoration of degraded areas; community forest-management training.
Improved housing using resistant materials	Storms and strong winds have damaged traditional housing and placed families at risk.	Durable materials; community participation in design and traditional siting; sustainable materials; safe-construction training.
Development of local markets for Mbya Guarani products	Communities face marketing difficulties despite successful fairs; stable marketing and promotion strategies are lacking.	Indigenous marketing strategy; fairs and solidarity-based sales spaces; marketing, labeling and visual-identity training; promotion of sustainable Mbya products.
Acceso a energía sostenible para el desarrollo comunitario	Varias comunidades aún carecen de acceso estable a energía eléctrica, limitando la educación, la producción y la calidad de vida.	- Instalación de sistemas eléctricos y solares fotovoltaicos. - Capacitación en uso, manejo y mantenimiento. - Coordinación institucional para cobertura energética sostenible.

6.2. Tekoa Yma Association

The Tekoa Yma Association brings together several communities of the Mbya Guarani People settled in the department of Caazapá, in southeastern Paraguay. Most of these communities are located within or around the ancestral territory of Tekoha Guasu, an area of profound cultural, spiritual and ecological value for the Mbya People and part of the country's last continuous remnant of the Upper Paraná Atlantic Forest (BAAPA).

The Association was established to strengthen community organization, territorial governance and the defense of the collective rights of the Mbya Guaraní People. Its work focuses on coordinating the communities of Tekoha Guasu to promote territorial recovery, sustainable management of natural resources and preservation of cultural identity in the face of increasing external pressures.

Tekoa Yma works in coordination with the Association of Indigenous Communities of Itapúa (ACIDI), with technical and political support from the Federation for the Self-Determination of Indigenous Peoples (FAPI), in participatory planning processes such as the “Life Plan of the Mbya Guaraní People of Tekoha Guasu.” This instrument has provided a roadmap for organizational strengthening, environmental protection, political advocacy and the climate resilience of communities.

The communities belonging to the Association include Viju, Kokuere, Tuna Arroyo Guazú, Karumbey, Vy’a Renda and Ypetĩ Nara’i, among others. They all share a close spiritual and material relationship with nature, which they regard as the foundation of community life. Their territories are located within or in the area of influence of the San Rafael Park Reserve (which forms part of Tekoha Guasu), an area spanning parts of the departments of Caazapá and Itapúa and recognized for its high biodiversity and hydrological importance to the Eastern Region.

The Tekoa Yma Association faces multiple challenges related to deforestation, biodiversity loss, forest fires, the expansion of soybean monoculture and territorial conflicts, all of which threaten ecosystem integrity and the cultural continuity of communities. Tekoa Yma communities are now surrounded by extensive mechanized soybean plantations, which have caused the near-total loss of native forest around their territories. This transformation has profoundly altered the local ecological balance and drastically reduced the presence of species that once regulated the environment.

With the disappearance of the forest, the natural defense system that controlled pests and diseases was also lost. Natural enemies—including birds, bats, amphibians and beneficial insects—were displaced by deforestation and agrochemical use, resulting in recurrent pest outbreaks in community crops, particularly following abrupt climatic changes. According to community perceptions, this occurs because they no longer have the natural protection once provided by forests, which helped regulate pests and the local climate. In the words of community leaders, “without forest, there is no defense anymore,” an expression that summarizes the direct relationship between deforestation, climate vulnerability and loss of environmental balance in Tekoha Guasu and around Caazapá National Park.

6.2.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 8. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts	The reduction of streams and springs, combined with the loss of forests that regulated the water cycle, has caused marked water scarcity in several communities of Tekoha Guasu and around Caazapá National Park. This limits water for human consumption and directly affects beekeeping, family gardens and agricultural production. In many cases, soils harden and lose fertility because of insufficient moisture, making cultivation of staple foods and continuation of traditional activities nearly impossible.
	Heavy rainfall with storms	Rainfall concentrated over short periods causes intense erosion of soils degraded by deforestation, while severe storms damage roads, homes and small community bridges, causing material destruction and affecting family safety. These events also negatively affect agricultural production and have caused school closures in Mbya Guarani communities, interrupting daily activities and intensifying local development challenges.
	Localized frosts in low-lying areas	In recent years, frosts have occurred in low-lying areas, causing losses of subsistence crops and affecting fruit trees and family gardens. Although damage is lower in higher areas, these events significantly reduce food availability and affect food security in low-lying areas.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

6.2.2 Progress and Setbacks in Climate Action

During the Plan update process, important experiences were identified that represented progress, as well as limitations in addressing climate change:

Table 9. Progress and setbacks of the Tekoa Yma Association

Area	Progress	Setbacks or limitations
Production and environment	Implementation of agroforestry systems in communities with support from international cooperation (Manos Unidas, AECID); shade-grown yerba mate production and reforestation with fruit species; beekeeping projects that improve nutrition and generate surplus for sale.	Growing difficulties in agricultural production because of dry, compacted soils; total loss of cassava crops due to pests and climate extremes; severe forest reduction, with only 200 hectares remaining out of 1,526.
Territorial management	Development of the Life Plan to strengthen territorial management and climate adaptation by integrating ancestral knowledge, as well as a forest restoration plan for member communities. Participation in Municipal Territorial Planning processes (POUT), especially in Abaí and Tava'i, where Indigenous territories are included in planning.	Expansion of the mechanized agricultural frontier around Tekoha Guasu and Caazapá National Park, placing pressure on territories and water sources; limited State recognition of Life Plans, restricting their implementation.
Infrastructure and housing	Construction of 64 homes underway with support from MUVH, using more resistant materials adapted to families; basic infrastructure works such as wells, ponds and water tanks to improve water security; expansion of the community school, which serves as an educational space and emergency shelter.	Precarious homes destroyed by storms and flooding; persistent lack of electricity in several communities; limited coverage, as not all families yet have access to the new infrastructure.

Area	Progress	Setbacks or limitations
Animal production	Projects involving laying hens for young people and women, supported by AECID and local organizations; pilot fish-production experiences (pacú), with initial technical training; progress in small-scale livestock and small animals such as chickens and goats/sheep, Improving food security.	Limited management capacity and technical assistance in poultry projects, affecting sustainability; animal production vulnerable to drought and lack of forage; need to strengthen training and support for women and young people to ensure continuity.

6.2.3 Loss and Damage

The assessment identified events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. The following table summarizes material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Table 10. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Deforestation and biodiversity loss	Losses: forest territory reduced to only 200 of 1,526 ha; disappearance of resources for handicrafts, food and materials. Damage: loss of income and dependence on purchased products.	Losses: soil erosion and degradation of agricultural land. Damage: alteration of the local water cycle.	Losses: loss of agricultural rituals linked to the natural calendar. Damage: discouragement and loss of faith in ancestral climate protection.
Contamination from soybean spraying	Losses: crop losses and drastic reduction in honey production. Damage: economic and food impacts.	Losses: disappearance of natural pest enemies. Damage: ecological imbalance caused by agrochemicals.	Losses: weakening of traditional knowledge on natural pest management. Damage: sense of losing control over the territory.
Extreme climate variability (droughts, heavy rainfall and frosts)	Losses: total loss of cassava crops in 2022 and 2023; damage to gardens and homes. Damage: production instability and loss of staple foods.	Losses: reduced stream flow and contamination. Damage: loss of aquatic biodiversity.	Losses: loss of sacred sites connected to water. Damage: collective grief and a sense of disconnection from the tekoha.
Agricultural pests (leaf-cutting ants and others)	Losses: crops destroyed by pests. Damage: loss of native seeds and reduced food availability.	Losses: soil compaction. Damage: deterioration of land and access routes.	Losses: loss of the sense of home and safety. Damage: weakening of community life and cohesion.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Destruction of streams and loss of fish	Losses: loss of fishing as a source of livelihood. Damage: reduced access to clean water.	Losses: loss of vegetation cover. Damage: degradation of the park ecosystem and increased CO ₂ .	Losses: loss of the spiritual relationship with the sacred forest. Damage: moral and emotional suffering.
Damage to homes and community infrastructure	Losses: homes and gardens destroyed by storms. Damage: high reconstruction costs.	Losses: progressive degradation of forests and water. Damage: State inaction in the face of deforestation.	Losses: loss of trust in institutions. Damage: strengthening of faith as a means of spiritual resilience.
Forest fires and illegal burning in Caazapá National Park	Losses: destruction of vegetation and smoke-related health impacts. Damage: respiratory impacts and temporary displacement.	Losses: loss of defenders and community leaders. Damage: social vulnerability.	Losses: fear and silencing of ancestral voices. Damage: weakening of spiritual and community leadership.
Lack of legal protection and State support	Losses: inability to access resources for conservation and production. Damage: legal insecurity over the territory.	Losses: severe soil compaction and erosion. Damage: progressive desertification.	Losses: loss of productive territory as inheritance. Damage: sense of powerlessness in the face of climate conditions.
Threats and reprisals against environmental defenders	Losses: impacts on leaders' physical and psychological integrity. Damage: restrictions on free organization.	Pérdidas: pérdida de defensores y líderes comunitarios. Daños: vulnerabilidad social.	Pérdidas: miedo y silenciamiento de la palabra ancestral. Daños: debilitamiento del liderazgo espiritual y comunitario.
Clay soil in the Ka'atymi community	Losses: total loss of agricultural production during droughts. Damage: limitations on planting or plowing.	Pérdidas: compactación y erosión severa del suelo. Daños: desertificación progresiva.	Pérdidas: pérdida del territorio productivo como herencia. Daños: sensación de impotencia frente al clima.

6.2.4 New Priorities Identified

As part of the Plan update process, the communities of the Tekoa Yma Association identified initiatives needed to respond to urgent challenges, improve their climate-change adaptation capacities and strengthen their climate resilience. They are presented below in detail.

Technified fish farming, food security with temporary assistance, and small-livestock production

The community considers fish farming in constructed ponds a priority option for diversifying production, with the aim of strengthening food self-sufficiency and improving family nutrition. The project seeks to use local resources to create a sustainable source of protein and potential complementary income, reducing dependence on external food sources.

Small poultry experiences have begun in some communities with moderate success. There are also positive goat-raising initiatives that provide milk and protein to some communities and may generate income through retail sales.

Because families have no previous experience with fish farming, they request specialized technical support to assess feasibility, ensure appropriate learning and secure long-term production sustainability.

Recognizing that these initiatives require an adaptation period, the community proposes that fish farming and other sustainable agricultural projects be accompanied by a temporary food-assistance program consisting of weekly or monthly food kits. This transitional support would cover basic needs during the initial stage, prevent families from abandoning productive activities for lack of immediate resources, and support a gradual transition toward self-sustainability and food resilience.

Promotion of agroforestry practices, subsistence crops and honey production

LTekoa Yma prioritizes agroforestry systems as a key strategy to strengthen climate resilience, restore degraded ecosystems and improve livelihoods. These systems combine yerba mate and citrus under forest cover, integrating income generation with protection of remaining forest and recovery of soil fertility.

Shade-grown yerba mate is highlighted as a sustainable practice that respects biodiversity, improves product quality and preserves soil moisture by avoiding direct sun exposure. Citrus in mixed systems likewise diversifies the local economy and reduces vulnerability to extreme climate events. These actions reflect an effort to maintain harmony between nature and Mbya Guarani culture, recovering the ancestral view of the forest as a source of life and balance.

The community also proposes strengthening subsistence crops through native seeds, basic inputs and agroecological training programs. Training carried out with organizations such as CETEC seeks to promote sustainable production, organic soil management and efficient water use, thereby Improving food security, reducing dependence on external inputs and consolidating a model based on community autonomy, environmental regeneration and food sovereignty.

One community is restarting beekeeping for honey production, both for food security and for cultural and spiritual purposes, since honey plays a vital role in the religious processes of the Mbya Guarani People.

Community gatherings for empowerment and social reinforcing

Tekoa Yma considers periodic community gatherings essential spaces for social cohesion, dialogue and collective planning. They strengthen internal organization, enable experience-sharing and analysis of common challenges, and support joint strategies for environmental, social and cultural issues affecting Tekoha Guasu and Caazapá National Park.

The lack of permanent institutional support from State entities has led communities to assume a more active role in managing their own processes. Through these gatherings, they seek community empowerment so that priorities are defined by the communities themselves and communicated to leaders in a participatory and transparent manner. These spaces also strengthen leadership by women and young people and their participation in decision-making.

Gatherings are also essential for addressing internal conflicts and external threats that weaken territorial cohesion. In some cases, leaders promoted by outside actors have encouraged tree cutting and soil mechanization, practices contrary to Mbya Guarani cultural and environmental values. The community therefore sees a need to reinforce organizational autonomy, empower legitimate leaders and build collective resistance to pressures from large producers seeking to impose development models contrary to their worldview.

In this way, community gatherings strengthen not only the social fabric and internal governance but also the defense of territory, cultural identity and Indigenous self-determination—fundamental pillars for the sustainability and balance of Tekoha Guasu and Caazapá National Park.

Safe drinking water and sanitation as a climate-change adaptation measure

Tekoa Yma faces an increasingly severe water crisis resulting from declining stream flows, disappearing springs and loss of forests that once regulated the water cycle. These changes, worsened by climate variability and prolonged droughts, have created structural water scarcity affecting human consumption, agricultural production, beekeeping and family gardens.

Deforestation and intensive agro-industrial practices in surrounding areas have accelerated soil degradation and waterway contamination, weakening the ecosystem's natural capacity to retain moisture and recharge aquifers. During droughts, soils harden and lose fertility, and streams dry rapidly, leaving families without safe water sources.

Improving access to safe drinking water and sanitation is therefore recognized as a key climate adaptation measure. The community requests technical and financial support for artesian wells, pumping systems, storage tanks and adequate sanitation, together with training in sustainable water management and use. These actions seek to reduce vulnerability to recurrent droughts, ensure clean water throughout the year and strengthen resilience in Tekoha Guasu and around Caazapá National Park..

Intercultural health and access to medicines in Tekoha Guasu and Caazapá National Park

Mbya Guarani communities in Tekoha Guasu and around Caazapá National Park face serious shortcomings in access to health care and basic medicines. Local health posts often lack essential supplies, common medicines or resources for emergencies, forcing families to travel long distances for care when they are able to do so. The situation worsens during outbreaks, respiratory illnesses, gastrointestinal conditions or chronic diseases, when delays or lack of medicines place community health at risk.

These health deficits are also part of the structural inequalities affecting Indigenous Peoples in Paraguay. Law No. 5469 on Indigenous Peoples' Health establishes communities' right to access the National Health System through an intercultural, free, equitable and participatory approach. However, many local posts lack sufficient human resources, medicines and appropriate protocols for Indigenous territories.

The Ministry of Public Health has advanced toward creation of the National Directorate for Indigenous Peoples' Health (DINASAPI), intended to adapt health services for Indigenous Peoples, strengthen intercultural approaches and improve access to medicines and services in remote communities. Nevertheless, many remote communities still lack functional infrastructure, sufficient staff and reliable supply-chain mechanisms for regular medicine provision.

- Strengthen local health-post infrastructure, including storage, refrigeration for temperature-sensitive medicines, consultation space and furniture.
- Secure regular provision of essential medicines and basic medical supplies.
- Train Indigenous health promoters and health personnel in intercultural medicine, first aid and basic treatments compatible with traditional knowledge.
- Establish participatory health-post management so the community can help monitor medicine stocks, report shortages and coordinate replenishment with municipal or departmental authorities.
- Advocate with departmental and national health authorities to prioritize medicine provision in Indigenous communities, especially hard-to-reach areas.

These health actions seek to ensure that communities do not depend exclusively on long-distance travel for care and can obtain timely basic health services and sufficient supplies directly in their territories, reducing vulnerability to common illnesses and health emergencies.

Table provides an overview of the new priorities defined by the communities for the 2025–2030 period, highlighting the prioritized initiatives, their central challenges and the main planned actions.

Table 11. Summary of the Tekoa Yma Association’s new priorities (2025–2030)

Proposed initiative	Challenge / description	Actions
Technified fish farming and food security with temporary assistance	Scarcity of protein sources and low incomes; lack of productive diversification; food vulnerability during the transition to new sustainable systems.	Implement fish farming in constructed ponds with technical support; train families in pond management and maintenance; provide weekly or monthly food kits as temporary assistance while production becomes established; strengthen poultry and goat production in interested communities.

Proposed initiative	Challenge / description	Actions
Promotion of agroforestry practices, subsistence crops and honey production	Soil degradation and native-forest loss; low agricultural productivity; dependence on external inputs.	Implement agroforestry systems with yerba mate and citrus under forest cover; provide seeds and basic inputs; agroecological training focused on sustainable water use and soil recovery; support interested communities in beekeeping.
Safe drinking water and sanitation as a climate adaptation measure	Reduced stream flow and spring contamination due to deforestation and agrochemicals; prolonged droughts aggravating the water crisis.	Construct artesian wells, pumping systems and storage tanks; install basic sanitation facilities; provide training in sustainable water management and use as a drought-adaptation measure.
Community gatherings for empowerment and social strengthening	Social fragmentation, internal conflicts and external pressure from large producers; lack of institutional support from INDI, MADES, INFONA, the Public Prosecutor's Office and others.	Hold periodic community-organization gatherings; promote legitimate leadership by women and young people; strengthen internal autonomy and territorial defense against external actors.
Intercultural health and access to medicines in Tekoha Guasu and around Caazapá National Park	Shortages of medicines and basic supplies at the health post; inadequate medical care and insufficient trained personnel in Mbya Guaraní communities.	Strengthen health-post infrastructure; secure periodic provision of essential medicines; train Indigenous health promoters; establish community mechanisms for monitoring and reporting supplies.

6.3. Cheiro Ara Poty Association

The Cheiro Ara Poty Association is a representative organization of the Mbya Guaraní People, made up of several communities, including San Juan, Yhovy and Jaguary, located in the district of Dr. Juan Eulogio Estigarribia, department of Caaguazú, Paraguay. Its name in Guaraní means “flower of beautiful weather,” an expression symbolizing harmony with nature, hope and the cycle of renewal that characterizes the Mbya worldview.

The Association emerged as an organizational response to profound environmental and territorial changes that transformed its traditional surroundings. Forest loss, the expansion of agribusiness and increasing exposure to agricultural pollutants led communities to unite in defense of their ancestral territory, strengthen their autonomy and promote sustainable livelihood strategies. Together, the three communities cover approximately 1,450 hectares, currently without forest cover. None of the territory has forest reserves, and the few remaining trees are scattered and isolated as a result of intensive deforestation. This reflects the magnitude of environmental deterioration faced by Mbya Guaraní families, whose ecological, cultural and spiritual balance has been deeply affected.

The history of Cheiro Ara Poty is marked by a territorial struggle lasting more than 26 years, which culminated in definitive land titling following the enactment and effective implementation of Expropriation Law No. 24/89. Achieved through the collective efforts of the communities and support from the Federation for the Self-Determination of Indigenous Peoples (FAPI), this accomplishment was recognized nationally and internationally as an example of justice and perseverance. The United Nations Special Rapporteur on the Rights of Indigenous Peoples also highlighted the process during a visit to the country, underscoring its relevance to fulfillment of Indigenous territorial rights.

Beyond its political dimension, this recognition also reaffirmed a collective identity based on the sacred relationship with the land. For Mbya Guaraní communities, the forest is a source of material and spiritual life: food, medicine, shelter and inner strength. Its loss therefore means not only the disappearance of natural resources, but also a rupture with ancestral spirituality.

***“The forest and nature provide the spiritual strength to keep moving forward;
without the forest, everything becomes more difficult.”***

Against this backdrop, the Cheiro Ara Poty Association has assumed a key role in seeking sustainable solutions that integrate environmental restoration with cultural revitalization. Its current work focuses on promoting recovery of native forests, community-based territorial management, food sovereignty and intercultural education for new generations. Guided by self-determination and respect for nature, the Association works to restore lost balance and strengthen the resilience.

6.3.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 12 .Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts	Prolonged droughts have caused the disappearance of a lagoon that previously provided fish and water for consumption, as well as the drying of streams and springs that were vital to the community. This water loss has also considerably reduced soil productivity, particularly cassava cultivation, which now produces fewer and smaller roots. Lack of rainfall has worsened food insecurity and weakened household self-sufficiency.
	Heavy rainfall with flooding and localized storms	Concentrated rainfall damages homes, causes losses of domestic animals and erodes soils. Lack of vegetation cover and natural drainage worsens flooding impacts in settlements.
	Strong winds, with consequent drift of agrochemicals	Frequent high-intensity winds destroy roofs and crops and carry agrochemicals from neighboring mechanized farms into communities. This has increased disease incidence and environmental contamination, particularly because natural forest barriers are absent.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

6.3.2 Progress and Setbacks in Climate Action

During the Plan update process, important experiences were identified that represented progress, as well as limitations in addressing climate change:

Cuadro 13. Avances y retrocesos de la Asociación Cheiro Ara Poty

Area	Progress	Setbacks or limitations
Access to housing and infrastructure	A 30-home housing project was implemented through the Ministry of Urban Planning, Housing and Habitat (MUVH), aimed at reducing structural vulnerability and improving resistance to severe climate events such as storms, heavy rainfall and winds. These homes represent progress toward dignified, climate-resilient housing conditions.	Precarious conditions persist: 45 homes were destroyed by severe storms, causing total loss of shelter and household belongings. Lack of territorial planning and appropriate materials increases exposure to future extreme events.
Environmental and forest management	With support from the PROEZA Project, a participatory reforestation plan was developed to restore degraded areas, strengthen biodiversity and recover the ecological and cultural function of the forest as a spiritual foundation of the Mbya People.	Implementation has not yet begun and there is no planting date, perpetuating an absolute lack of forest cover (0%) across the territory's 1,450 ha. This total vegetation loss reduces carbon sequestration, water infiltration and the community's spiritual and cultural balance.
Water resources	Functional community wells continue to partially supply families, contributing to basic water security during periods of scarcity.	Storage capacity is insufficient (tanks under 10 L, as stated in the source document), and natural water bodies—a lagoon, two springs and a stream—have dried up because of deforestation and prolonged droughts. This creates critical water vulnerability and health risks.
Food sovereignty and production	Small family gardens and small-livestock production (chickens) were strengthened as strategies for food resilience and household income generation, prioritizing women's leadership.	Soil degradation from erosion, organic-matter loss and insufficient shade has reduced agricultural productivity. Cassava, the staple crop, now produces fewer and smaller roots. Dependence on external markets is increasing and food self-sufficiency is declining.

Area	Progress	Setbacks or limitations
Community and environmental health	Partial housing improvements provide greater protection from rain, humidity and wind, reducing respiratory and structural risks.	Wind drift of agrochemicals from adjacent mechanized farms increases gastrointestinal and skin diseases. The absence of natural forest barriers directly exposes families to contaminants.
Cultural and spiritual dimension	The community reaffirms the need to restore native forest as a central element for spiritual healing, revitalization of knowledge and reconnection with ancestral territory.	Total deforestation has caused a profound spiritual and cultural crisis, interrupting traditional rituals and weakening intergenerational transmission of Mbya knowledge.
Youth and technical training	A technical vocational training program was proposed in partnership with the National Professional Promotion Service (SNPP), focused on local employability and remaining in the territory.	The program has not yet been implemented, leaving Mbya youth economically vulnerable and contributing to forced migration, affecting community continuity and cultural transmission.

6.3.3 Loss and Damage

The assessment identified events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. The following table summarizes material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Cuadro 14. Pérdidas y daños

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Total destruction of forests	Losses: complete loss of forest cover and associated biodiversity. Damage: increased local temperature, soil erosion and greater exposure to extreme climate events.	Losses: complete loss of forest cover and associated biodiversity. Damage: increased local temperature, soil erosion and greater exposure to extreme climate events.	Losses: complete loss of forest cover and associated biodiversity. Damage: increased local temperature, soil erosion and greater exposure to extreme climate events.
Loss of water resources (lagoon, springs and stream)	Losses: drying of three springs and one stream due to deforestation and droughts. Damage: loss of ecological functions of the water cycle and microclimate.	Losses: drying of three springs and one stream due to deforestation and droughts. Damage: loss of ecological functions of the water cycle and microclimate.	Losses: drying of three springs and one stream due to deforestation and droughts. Damage: loss of ecological functions of the water cycle and microclimate.
Declining soil productivity	Losses: loss of soil fertility and structure. Damage: compaction, erosion and loss of organic matter.	Losses: loss of soil fertility and structure. Damage: compaction, erosion and loss of organic matter.	Losses: loss of soil fertility and structure. Damage: compaction, erosion and loss of organic matter.
Loss of food sovereignty and natural medicine	Losses: disappearance of native food and medicinal species. Damage: loss of biological diversity and ecosystem functions.	Losses: disappearance of native food and medicinal species. Damage: loss of biological diversity and ecosystem functions.	Losses: disappearance of native food and medicinal species. Damage: loss of biological diversity and ecosystem functions.
Agrochemical spraying and contamination	Losses: contamination of soil, water and air. Damage: ecosystem alteration and wildlife mortality.	Losses: contamination of soil, water and air. Damage: ecosystem alteration and wildlife mortality.	Losses: contamination of soil, water and air. Damage: ecosystem alteration and wildlife mortality.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Loss of culture and spirituality	Losses: disappearance of ecosystems that sustained rituals and ceremonies. Damage: fragmentation of the cultural landscape.	Losses: disappearance of ecosystems that sustained rituals and ceremonies. Damage: fragmentation of the cultural landscape.	Losses: disappearance of ecosystems that sustained rituals and ceremonies. Damage: fragmentation of the cultural landscape.
Change in way of life and need for production systems	Losses: loss of ecological balance between community resource use and the territory's natural regeneration capacity. Damage: overexploitation of degraded soils and increased environmental pressure on remaining ecosystems.	Losses: loss of ecological balance between community resource use and the territory's natural regeneration capacity. Damage: overexploitation of degraded soils and increased environmental pressure on remaining ecosystems.	Losses: loss of ecological balance between community resource use and the territory's natural regeneration capacity. Damage: overexploitation of degraded soils and increased environmental pressure on remaining ecosystems.
Impact on emotional well-being (children and young people)	Losses: disappearance of natural spaces for play, recreation and community life that previously strengthened social cohesion and intergenerational bonds. Damage: emotional and affective disconnection from the natural environment, weakening the sense of belonging and daily relationship with the territory.	Losses: disappearance of natural spaces for play, recreation and community life that previously strengthened social cohesion and intergenerational bonds. Damage: emotional and affective disconnection from the natural environment, weakening the sense of belonging and daily relationship with the territory.	Losses: disappearance of natural spaces for play, recreation and community life that previously strengthened social cohesion and intergenerational bonds. Damage: emotional and affective disconnection from the natural environment, weakening the sense of belonging and daily relationship with the territory.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Difficulties in agricultural production	Losses: loss of the soil's physical and biological structure due to erosion and compaction, reducing its natural capacity to sustain plant life. Damage: progressive desertification, reduced infiltration capacity and loss of surface fertility, worsening vulnerability to droughts and heavy rainfall.	Losses: loss of the soil's physical and biological structure due to erosion and compaction, reducing its natural capacity to sustain plant life. Damage: progressive desertification, reduced infiltration capacity and loss of surface fertility, worsening vulnerability to droughts and heavy rainfall.	Losses: loss of the soil's physical and biological structure due to erosion and compaction, reducing its natural capacity to sustain plant life. Damage: progressive desertification, reduced infiltration capacity and loss of surface fertility, worsening vulnerability to droughts and heavy rainfall.
Loss of infrastructure and housing	Losses: soil erosion and loss of protective vegetation. Damage: increased exposure to future flooding.	Losses: soil erosion and loss of protective vegetation. Damage: increased exposure to future flooding.	Losses: soil erosion and loss of protective vegetation. Damage: increased exposure to future flooding.

6.3.4 New Priorities Identified

During the participatory process to update the Indigenous Climate Action Plan (PIAC), the Cheiro Ara Poty Association identified a set of urgent priorities in response to the accumulated impacts of climate change, deforestation, intensive agrochemical uses and the loss of essential ecosystems.

These priorities reflect the main actions required to strengthen the climate resilience of Mbya Guaraní territory, reduce social and environmental vulnerability and restore balance between people and nature.

Recovery of degraded agricultural soils

The degradation and loss of soil fertility is one of the direct manifestations of climate change, exacerbated by prolonged droughts and heavy rainfall that erode agricultural land. The community prioritizes a comprehensive soil-restoration program based on agroecological practices, organic fertilizers and technical training for farming families. This measure will increase adaptive capacity to extreme events, reduce food vulnerability and contribute to climate mitigation through soil carbon sequestration. It also strengthens productive resilience and promotes sustainable food security.

Restoration of native forests and living barriers

Total loss of native forest has increased the territory's climate vulnerability, affecting natural water regulation and temperature control. The Association prioritizes reforestation with native species to restore essential ecosystem services such as water capture, soil conservation and carbon sequestration. Living barriers will reduce exposure to agrochemicals and strong winds, strengthening environmental resilience and territorial adaptation. Forest recovery also has spiritual and cultural value, contributing to collective healing and reconnection with ancestral territory.

Improving food security and food sovereignty

Climate variability and soil degradation have affected traditional agricultural production, creating food insecurity and external dependence. The community proposes strengthening family and community gardens with adaptive irrigation systems and continuous technical assistance to increase the resilience of food systems to drought or extreme rainfall. Productive diversification through small-livestock production (chickens and pigs) helps reduce social vulnerability, ensure a balanced diet and replace extractive practices with sustainable local models.

Expanding water-storage capacity and access

Recurrent droughts, increasingly intense as a result of climate change, have reduced water availability. Although wells have adequate flow, storage capacity is limited, increasing vulnerability during dry periods. The community therefore proposes larger-capacity tanks, rainwater-harvesting systems and community-based water management. This strengthens water resilience and adaptation to extreme events while ensuring water for consumption and production.

Technical training for women and young people

Climate change affects not only ecosystems but also local economic opportunities, contributing to youth migration and gender inequality. The Association proposes technical training in sustainable trades, in coordination with SNPP and other institutions, as a strategy to reduce social vulnerability and increase the adaptive capacity of new generations. It also seeks to strengthen women's leadership and economic autonomy through resilient enterprises integrating environmental sustainability and climate adaptation.

Improved access to formal and higher education

Limited access to education increases social and climate vulnerability by reducing opportunities for young people to participate in territorial management and climate action. The community therefore proposes strengthening access to secondary

and higher education through scholarships, intercultural education and climate-change training, enabling Mbya youth to build capacities for adaptation, mitigation and sustainable territorial planning. This action strengthens human capital and long-term community resilience.

Cultural and spiritual recovery linked to the forest

For the Mbya Guarani People, the forest is a space of spirituality and ecological balance. Its disappearance is not only an environmental loss but also a cultural and emotional rupture that weakens community resilience. Restoring forest areas of cultural and spiritual value is considered a priority ecosystem-based adaptation measure that promotes both mitigation through carbon sequestration and cultural and spiritual healing. The process seeks to rebuild the symbolic relationship with nature, restore Mbya identity and strengthen the community’s climate and emotional resilience.

The following table summarizes the new priorities defined by Cheiro Ara Poty communities for the 2025–2030 period, highlighting the prioritized initiatives, their central challenges and the main planned actions.

Table 15. Summary of the Cheiro Ara Poty Association’s new priorities (2025–2030)

Proposed initiative	Challenge / description	Actions
Program for recovery of degraded agricultural soils	Loss of soil fertility and erosion, aggravated by prolonged droughts and heavy rainfall, have drastically reduced agricultural productivity and increased food vulnerability.	Implement agroecological practices and organic fertilizers; train farming families in sustainable soil management; promote crop rotation and conservation of organic matter; incorporate community soil monitoring.
Restoration of native forests and establishment of living barriers	Total deforestation eliminated vegetation cover, reducing climate mitigation and adaptation capacity and increasing exposure to agrochemicals.	Reforest with native species of cultural and ecological value; create living barriers to protect health and crops; promote community nurseries; strengthen local forest governance.
Improving food security and food sovereignty	Climate variability and soil degradation have reduced agricultural yields and created dependence on external food sources.	Develop climate-resilient family and community gardens; introduce adaptive irrigation systems; promote small-livestock production and productive diversification; provide training in nutrition and storage.

Proposed initiative	Challenge / description	Actions
Expansion of water-storage capacity and access	Prolonged droughts and insufficient storage infrastructure limit water for consumption and production, increasing water vulnerability.	Install large-capacity tanks and rainwater-harvesting systems; maintain community wells; train in sustainable water-resource management; integrate local climate monitoring.
Technical training for women and young people	Lack of local employment and educational opportunities increases youth migration and gender inequality, reducing community resilience.	Implement training in sustainable trades and clean technologies; provide specific technical assistance to women producers; promote local green enterprises.
Improved access to formal and higher education	Limited educational opportunities and lack of scholarships constrain Mbya youth training and reduce participation in climate action and territorial management.	Secure scholarships and partnerships with educational institutions; promote intercultural and environmental education programs; incorporate climate-change and adaptation training.
Cultural and spiritual recovery linked to the forest	Forest loss has caused a cultural and spiritual rupture affecting emotional balance and Mbya identity.	Restore forest areas of cultural and spiritual value; revitalize ritual practices and ancestral knowledge; develop community spaces for healing and environmental education; integrate ecosystem-based adaptation.

6.4. Pai Tavytera Reko Pave Association (APTR)

The Pai Tavyterã Reko Pavê Association (APTR) represents communities of the Pai Tavyterã People (also known as Pai-Tavyterã, Kaiowá or Paí Tavyterã), located mainly in northern Paraguay, especially in the departments of Amambay and Concepción and in neighboring areas of San Pedro and Canindeyú.

The name “Pai Tavyterã” literally means “inhabitants of the people at the center of the world,” referring to Cerro Guazú (Jasuka Venda), regarded by this community as sacred and as the mythical place where creation originated according to their worldview.

APTR emerged as an organizational body to strengthen cultural identity, defend ancestral territory and coordinate resilience actions in response to climate impacts. It is among the Indigenous organizations participating in collective and individual rights training organized by FAPI, including workshops on rights and territorial monitoring.

APTR communities live in territories surrounded by large cattle ranches and extensive soybean plantations, with increasing encroachment from land clearing, intensive agrochemical uses and pressure on water sources and remaining forests.

Historically, their livelihoods depend on family agriculture, fishing, small-livestock production and cassava as a traditional staple crop. In recent years, however, extreme climate conditions—droughts, fires and heat waves—and contamination from neighboring farms have intensified their vulnerability, reducing agricultural yields and degrading the environment.

In addition, APTR has taken an active role as a community educator, leading workshops that combine technical and traditional knowledge to care for watersheds and promote sustainable forest management. These activities are held periodically, two or three times a year, to consolidate local capacities for addressing climate challenges.

In context, the Pai Tavyterã People number around 15,000 inhabitants in Paraguay, distributed among approximately 61 communities, most of which have legal documentation. Their organization faces the challenge of maintaining ancestral community life in a landscape under pressure from the agro-export model.

APTR devotes its efforts to protecting essential resources—water, forests and native seeds—revitalizing its knowledge and building alliances for technical, legal and financial support. Its central challenge is to preserve its tekoha (living territory) as a space of life, culture and spirituality against threats that seek to fragment the territory and weaken autonomy.

6.4.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 16. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts and forest fires	Droughts reduce stream and river flows, dry up springs and make crop production difficult. In 2023, cassava and maize crops were completely lost. Fires are the most critical phenomenon for communities. In 2021 and 2024, fire affected between 800 and 1,000 hectares of forest and grassland, destroying flora, fauna and crops.
	Severe storms and strong winds	In 2023, storms with intense winds broke cassava branches and damaged family agricultural plots.
	Heat waves	In recent years, extreme heat waves have become one of the most concerning and recurrent phenomena for Pai Tavyterā communities. From November to March, temperatures frequently exceed 42°C. Rising temperatures have also created ecological imbalance, favoring pests such as whiteflies, locusts and defoliating larvae that attack cassava and maize plantations.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

6.4.2 Progress and Setbacks in Climate Action

During the Plan update process, important experiences were identified that represented progress, as well as limitations in addressing climate change:

Cuadro 17. Avances y retrocesos de la Asociación Pai Tavytera Reko Pave (APTR)

Area	Progress	Setbacks or limitations
Forest management and territorial conservation	APTR promotes conservation of protective forests and traditional-use areas, planting native species in degraded zones and raising awareness of the forest’s spiritual value.	Forest fires and clearing on neighboring properties destroyed between 800 and 1,000 hectares of forest and native fauna in 2021 and 2024. Deforestation and agrochemical use reduce vegetation cover and eliminate natural enemies of pests.

Area	Progress	Setbacks or limitations
Climate-change adaptation and water management	Communities collectively manage wells and ponds, combining traditional knowledge with sustainable-use practices. In some cases, natural waterways have been cleaned and maintained.	Prolonged droughts and heat waves dry up ponds and streams. Older wells have low flow and are insufficient for consumption. Streams are contaminated by agrochemical runoff.
Agricultural production and food security	Native cassava, maize, bean and peanut seeds continue to be maintained and cultivated without agrochemicals. Women lead family gardens combining traditional crops with vegetables.	Complete loss of cassava and maize in 2023; degraded soils and contamination from spraying. Pests—whiteflies, locusts, defoliating worms and ants—damage production. The water crisis prevents continuous planting.
Risk and fire management	APTR participates in workshops with FAPI, SEN and INFONA on fire prevention. Community meetings have been held to strengthen emergency response.	Fires recur every year (2021–2024). There are no local brigades, tools or systematic training. The distance from fire stations hinders rapid response.
Infrastructure and housing	A 32-home project implemented with MUVH in eight communities has improved living conditions and reduced exposure to extreme heat.	Some works remain unfinished because of administrative delays. Materials are not always suited to the hot-dry climate and may cause overheating.
Education and youth	Young people show growing interest in Reinforcing Pai Tavyterã culture and learning about climate change. They participate in training workshops and communication activities through radio and community networks.	Lack of connectivity, educational materials and teachers in schools. Youth migration weakens intergenerational transmission of knowledge.
Governance and territorial control	The organization has made progress in internal strengthening and knowledge of traditional territorial boundaries. Community assemblies and coordination with FAPI are promoted.	Expansion of ranchers' fences into the territory, lack of legal support and limited capacity for permanent monitoring.

Area	Progress	Setbacks or limitations
Culture and spirituality	Ceremonies of gratitude to nature, traditional prayers and spiritual ties to Cerro Jasuka Venda—the sacred center of the People—are maintained.	Loss of forests and water sources weakens spiritual practices, reducing the frequency of ceremonies and the role of spiritual guides.
Establishment of community Indigenous brigades for forest-fire prevention and monitoring	With support from IKI Small Grants, FAPI has begun establishing community Indigenous brigades expected to be fully operational by the end of 2026. Their central role will be to monitor heat hotspots in their territories using appropriate information and tools for early risk detection and, based on this monitoring, activate the mechanisms established in the Fire Prevention Protocol, thereby strengthening community response capacity and territorial protection.	The process remains at an initial stage. Operational capacities are still limited. Community brigades may provide an immediate response, but support from the competent institutions will remain essential for comprehensive fire response and risk management.

6.4.3 Loss and Damage

The assessment identified events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. The following table summarizes material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Table 18. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Forest fires (2021 and 2024)	Losses: fires affected between 800 and 1,000 hectares of forest, grassland and agricultural plots. Families lost crops, tools, stored food and traditional building materials. Damage: interruption of agricultural production reduced food availability for months and created additional costs for rebuilding destroyed homes and plots.	Losses: disappearance of native species, medicinal plants and wildlife habitats. Damage: soil was left compacted and nutrient-poor, hindering forest regeneration; vegetation cover regulating temperature and water was reduced.	Losses: burning of sacred sites and spaces used for prayers and ceremonies. Damage: collective pain and a sense of spiritual uprooting caused by destruction of the forest, considered a source of life and balance.
Prolonged droughts and heat waves (2022–2023)	Losses: total loss of cassava, maize and bean crops; deaths of small livestock; reduced water for consumption and irrigation. Damage: lower household income, food insecurity and dependence on external food.	Losses: complete drying of streams and springs. Damage: loss of water and micro-climate regulation, increased erosion and extreme heat.	Losses: suspension of ritual planting and seed blessings performed by spiritual guides. Damage: weakening of the spiritual bond with nature, formerly seen as protector and giver of life; loss of confidence in the sacred planting cycle.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Agricultural pests (2020–2025)	Losses: continuous damage to cassava and maize from white-flies, locusts, defoliating worms and ants; loss of native seeds and reduced harvests. Damage: declining agricultural yields and need to purchase external food.	Losses: disappearance of natural pest enemies because of deforestation and spraying. Damage: permanent ecological imbalance, increase in resistant pests and soil contamination.	Losses: loss of ancestral knowledge about natural pest control, including medicinal plants and lunar cycles. Damage: sense of powerlessness over loss of environmental control and rupture of reciprocity with the land.
Stream contamination from agrochemicals and livestock production	Losses: contamination of water used for drinking, cooking and irrigation; loss of crops near waterways and higher costs to obtain clean water. Damage: direct health impacts on families from contact with contaminated water.	Losses: fish mortality and disappearance of smaller aquatic species. Damage: degradation of aquatic ecosystems, algae growth and reduced water quality.	Losses: symbolic loss of the purity of water, a sacred element in the Pai Tavyterã worldview. Damage: weakening of the spiritual relationship with water and fewer ceremonies of gratitude for its abundance.
Severe storms and strong winds (2023)	Losses: destruction of cassava and vegetable crops; damage to roofs and community structures; loss of stored food. Damage: deterioration of agricultural plots, reconstruction needs and unforeseen economic losses.	Losses: removal of fertile soil and root exposure. Damage: reduced soil productivity and increased erosion.	Losses: interruption of scheduled ritual planting that could not take place at the appropriate time. Damage: fear, uncertainty and distrust toward natural phenomena, interpreted as signs of environmental imbalance.
Loss of small livestock due to disease (2022)	Losses: deaths of birds, chickens and pigs; reduced protein and economic resources for families. Damage: reduced livelihoods and capacity for food recovery.	Losses: diseases transmitted to domestic and wild fauna. Damage: alteration of local ecological chains and zoonotic risk.	Losses: loss of animals regarded as part of family and community life. Damage: collective sadness and perception of a bad omen or natural punishment.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Cultural and spiritual degradation due to loss of nature	Losses: weakening of community life and reduced participation in mingas and collective activities. Damage: loss of cooperation and cohesion among families.	Losses: destruction of ecosystems that sustained traditional medicine and collection of forest materials. Damage: loss of balance between community and territory.	Losses: abandonment of seed-blessing rituals, collective prayers and offerings to the land. Damage: demotivation among new generations and rupture in transmission of ancestral spiritual knowledge.

6.4.4 New Priorities Identified

During the workshop held with communities of the Pai Vavyterã Reko Pavê Association (APTR), leaders identified strategic priorities to strengthen climate action, reduce territorial vulnerability and restore ecological balance in Pai Vavyterã territory:

Strengthening community brigades, territorial control and environmental monitoring

Although FAPI, with support from IKI Small Grants, is currently working to establish community Indigenous brigades through training and provision of basic equipment, communities stressed that fires remain one of the most critical threats to their territory. They consider it essential not only to continue technical training but also to expand the project to include periodic practice, community drills and field exercises to strengthen immediate-response skills. They also highlighted the importance of consolidating brigade organizational structures, improving access to tools and technologies for monitoring heat hotspots, and ensuring effective coordination with support institutions such as SEN, volunteer firefighters and municipalities. Continuous strengthening of these brigades is a key element in reducing fire risk, protecting forests and ensuring the safety of families and territories.

In parallel, communities reported progressive territorial loss caused by ranchers' fences, illegal clearing and occupations within the tekoha. This creates conflicts, loss of natural resources and weakened community governance. APTR and FAPI therefore propose developing local control and surveillance capacities by combining traditional observation methods with modern tools such as GPS, drones, participatory mapping and satellite monitoring. Permanent legal support is also proposed for complaints, boundary disputes and recognition of territorial rights before competent institutions. This integrated approach seeks to consolidate the territorial autonomy of the Pai Vavyterã People and sovereignty over natural and spiritual resources.

ueblo Pai Tavyterã, elemento esencial para garantizar la soberanía sobre sus recursos naturales y espirituales.

Ecological restoration of streams and springs

Prolonged droughts and deforestation have severely affected waterways. Some streams crossing communities dry completely during dry months, while others are contaminated by agrochemicals from soybean production and neighboring livestock operations. APTR proposes an integrated ecological restoration strategy combining reforestation of streambanks with native species, physical protection of springs and cooperation agreements with neighboring landowners to reduce contamination. These actions seek to restore water flow, conserve aquatic biodiversity and ensure clean water for people, agriculture and local fauna. Restoring streams is also a way of re-establishing spiritual balance with water, considered by the Pai Tavyterã People to be a living being that purifies and gives life.

Drilling new wells and Improving the water system

Communities depend on old artesian wells that are shallow and have low flow. During droughts, families must walk long distances to distant streams to obtain water, increasing vulnerability, especially for women, children and older people. Priority is therefore given to drilling new deep wells with technology suited to soil conditions, equipped with solar pumps and storage tanks resistant to extreme heat. Existing systems should also be repaired, community pipelines installed, and local committees trained to manage and maintain water systems. This priority responds to the urgent need to guarantee the human right to safe water, reduce drought impacts and strengthen climate resilience.

Community bank of traditional seeds

Pests, contamination and droughts have reduced the availability of native cassava, maize and bean seeds, affecting food security and continuity of traditional agricultural practices. Communities therefore propose creating a community traditional-seed bank to conserve, multiply and distribute climate-resistant local varieties. It would be managed participatively by seed-guardian families with technical support for storage, exchange and recovery of native varieties. The initiative also has a cultural dimension: traditional seeds reaffirm Pai Tavyterã identity, strengthen food sovereignty and recover ancestral knowledge about the cycles of the land.

Environmental education for young people

Young people expressed a desire to train in environmental, technological and cultural issues to protect their territory. They recognize that new generations must take an active role in confronting climate-change challenges but need tools and support. APTR prioritizes training programs for Indigenous youth in fire prevention, environmental monitoring, forest resto-

ration and agroecology, integrating traditional knowledge with modern technical knowledge and working with public institutions, private organizations and civil society. Intercultural communication spaces such as community radio and traveling educational workshops are also proposed to strengthen Pai Tavyterã identity and youth participation in decision-making.

Dignified housing and educational infrastructure with improved access to energy

Pai Tavyterã communities value the MUVH project providing 32 homes in eight communities, but expressed concern over previous experiences in which works remained unfinished or used materials poorly suited to the region's hot-dry climate. Communities request completion of current housing and new models adapted to the territory, including ventilated roofs, natural shade, rainwater harvesting, cross-ventilation and thermally efficient materials. They also identify the need to improve educational infrastructure: some schools lack roofs, sufficient classrooms or furniture, while others have no facilities of their own. Intercultural schools should combine formal education with traditional Pai Tavyterã knowledge, school gardens, outdoor learning spaces and bilingual education (Guarani-Pai Tavyterã / Spanish). Finally, communities prioritize stable and sustainable electricity for homes and schools. Community solar systems could provide lighting, refrigeration, water pumping and operation of educational and communication equipment. This priority seeks to reduce structural vulnerability and ensure dignified conditions for living, studying and working in the territory.

Improving food security and sustainable agriculture

Communities highlighted the need to strengthen food autonomy in response to crop losses from drought, pests and soil degradation. They propose agroecological family gardens, diversified production using climate-adapted vegetables, fruit trees and medicinal plants, and sustainable small-livestock production. A temporary food-assistance program is also proposed for families most affected during droughts, ensuring continuity of production without compromising nutrition. Sustainable agriculture is understood not only as an economic response but also as an act of cultural and territorial reconstruction that restores community self-sufficiency and dignity.

Cultural revitalization and spiritual strengthening

The workshop revealed deep concern about the loss of cultural and spiritual practices associated with planting, nature and traditional prayers. Destruction of forests and sacred spaces has caused discouragement and reduced the frequency of ceremonies linking the community to the land. APTR therefore proposes a cultural revitalization process including recovery of agricultural and spiritual rituals such as seed blessings, offerings and collective prayers; training young apprentices alongside spiritual guides; and documenting and transmitting traditional knowledge through workshops, oral records and audiovisual support. This priority seeks to restore spiritual balance with nature, strengthen collective identity and transmit to new generations the values of the tekoha as a space of life, culture and spirit.

The following table summarizes the new priorities defined by APTR communities for the 2025–2030 period, highlighting the prioritized initiatives, their central challenges and the main planned actions.

La siguiente tabla sintetiza las nuevas prioridades definidas por las comunidades de la Asociación APTR para el periodo 2025–2030. En ella se destacan las iniciativas priorizadas, acompañadas de su problemática central, las principales acciones previstas y los aliados estratégicos que pueden contribuir a su implementación.

Table 19. Summary of new priorities of the Pai Tavytera Reko Pave Association (APTR) (2025–2030)

Proposed initiative	Challenge / description	Planned actions
Strengthening community brigades, territorial control and environmental monitoring	Communities face growing threats from forest fires, illegal clearing, occupation within the tekoha and progressive territorial loss. Brigades still lack sufficient operational capacity and appropriate monitoring and immediate-response tools.	Continue and expand brigade training and equipment with FAPI and IKI support; periodic practices, drills and field exercises; improve access to GPS, drones, participatory mapping and satellite alerts; consolidate brigade structures and coordination with SEN, firefighters and municipalities; community territorial-control systems; permanent legal support; strengthen territorial autonomy and protection of natural resources.
Ecological restoration of streams and springs	Drought and deforestation have dried or contaminated local streams, reducing access to water and affecting biodiversity. Agrochemical contamination threatens human health and aquatic ecosystems.	Reforest stream and spring margins with native species; establish community water-protection zones with neighboring land-owners; install natural barriers or biofilters; community cleaning and water monitoring; environmental education on water as a sacred good.
Drilling new wells and strengthening the water system	Existing wells are old, shallow and low-flow. During droughts families travel long distances for water, increasing vulnerability.	Drill deep wells with appropriate technology and solar pumps; repair pipelines, valves and community tanks; install safe storage and distribution systems; create community water committees; health education and rational water use.

Proposed initiative	Challenge / description	Planned actions
Territorial control and environmental monitoring	Private fences and illegal clearing have reduced territory and generated conflicts with ranchers. Lack of legal support and surveillance tools limits territorial defense.	Participatory maps and monitoring with GPS, drones and community cartography; strengthen environmental-monitoring and legal-reporting capacities; community boundary-surveillance system; dialogue and mediation for territorial conflicts.
Community bank of traditional seeds	Pests, droughts and contamination have reduced native cassava, maize and bean seeds, putting food sovereignty at risk.	Create a community native-seed bank managed by seed-guardian families; workshops to recover, select and conserve local varieties; seed exchanges among communities and neighboring associations; agroecology and agricultural-biodiversity training.
Environmental education and youth training	Pai Tavyterã youth are interested in environmental management and monitoring technologies but lack training spaces and resources.	Youth training in fire prevention, forest restoration and agroecology; integrate traditional knowledge with modern technological tools; community radio and audiovisual workshops; educational partnerships with public institutions and environmental organizations.

Proposed initiative	Challenge / description	Planned actions
Dignified housing and educational infrastructure with improved access to energy	Housing is precarious or unfinished and uses materials unsuitable for the hot-dry climate. Schools lack basic infrastructure and electricity.	Complete MUVH housing and build new bioclimatic units adapted to the environment; equip and expand schools with ventilated classrooms, gardens and suitable furniture; community solar systems for homes and schools; intercultural and bilingual education.
Strengthening food security and sustainable agriculture	Crop losses and soil depletion affect food self-sufficiency. Many families depend on external food.	Promote agroecological family and community gardens with heat-resistant species; sustainable small-livestock production; temporary food assistance for affected families; training in agroecological production and soil management.
Cultural revitalization and spiritual strengthening	Loss of forests and sacred sites has weakened spiritual practices and traditional rituals. New generations participate less in ceremonies.	Recover agricultural and spiritual rituals; train young apprentices alongside senior spiritual guides; document traditional knowledge through audio, video and oral workshops; create community cultural spaces for intergenerational exchange.

6.5. Ava Guarani Alto Canindeyú Association (AAGAC)

The Ava Guarani Alto Canindeyú Association (AAGAC) brings together 16 communities of the Ava Guarani People located in the department of Canindeyú. These communities are settled in a highly transformed territory dominated by large agricultural and livestock farms and mechanized soybean cultivation, which exert constant pressure on natural resources, native forests and water sources.

AAGAC was created as a collective platform for community coordination, with the purpose of strengthening the political representation of the communities, coordinating efforts in response to climate-change challenges, curbing environmental degradation and counteracting the progressive loss of social cohesion in the territory. In its institutional role, AAGAC is part of the Federation for the Self-Determination of Indigenous Peoples (FAPI), as a regional Indigenous organization committed to territorial defense.

During the participatory workshop, Indigenous leaders expressed a shared feeling: “we are tired of talks about climate change; we need more concrete action.” They called for an urgent shift toward tangible adaptation and restoration projects that go beyond rhetoric and translate into real benefits for vulnerable communities.

AAGAC promotes sustainable family agriculture, water protection and organizational strengthening as central pillars of its strategy. It recognizes that many communities suffer from prolonged droughts, contamination of streams by agrochemicals used in neighboring areas, and accelerated forest degradation. AAGAC therefore considers it essential to restore communication among community leaders, promote collective work and coordinate responses to fires, water contamination and forest loss.

From a cultural and ecological perspective, the Ava Guarani People are experiencing accelerated biodiversity loss, soil degradation and increasing constraints on traditional ways of life. Maize and sweet potato—fundamental to their food identity and rituals—are increasingly difficult to sustain in the face of drought, fires and environmental contamination.

Although many communities hold land titles, in practice they face obstacles to production. Extreme climate conditions, deterioration of water sources, agrochemical contamination and recurrent fires severely limit the possibility of maintaining sustainable production.

The Ava Guarani People are closely connected to their territory through a profound spiritual worldview. In the Mbaracayú Forest, for example, Ava communities have been recognized as ancestral custodians of the forest, participating in conservation and coordination of the biosphere reserve. This underscores their role not only as communities vulnerable to climate change, but also as fundamental actors in mitigation and adaptation.

6.5.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 20. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts with forest fires	Fires are the most recurrent and devastating phenomenon for communities. Each year, between August and October, fire spreads through grasslands and remnants of native forest, destroying agricultural plots, homes and natural habitats. Drought worsens the situation: ponds and streams dry up, plantations are lost, and intense heat makes agricultural work impossible. The combination of high temperatures, wind and grassland burning has caused health and food crises in several communities.
	Severe storms, strong winds and hailstorms	Between October and January, electrical storms and hurricane-force winds destroy roofs and damage homes and crops. In some communities, gusts have brought down trees and power poles, leaving families isolated. The lack of resilient infrastructure increases the level of damage.
	Extreme heat waves and heat stress	In recent years, temperatures above 40°C have been recorded for consecutive weeks, strongly affecting health, crops and small livestock. Families report animal deaths and crop wilting due to lack of moisture. Metal-roofed homes worsen the problem by increasing indoor heat. This phenomenon is associated with loss of tree shade and expansion of mechanized monocultures.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

6.5.2 Progress and Setbacks in Climate Action

During the Plan update process, important experiences were identified that represented progress, as well as limitations in addressing climate change:

Cuadro 21. Progress and setbacks of the Ava Guarani Alto Canindeyú Association (AAGAC)

Area	Progress	Setbacks or limitations
Community organization and Indigenous leadership	AAGAC brings together 16 Ava Guarani communities and constitutes a representative structure in the process of consolidation. It has promoted assemblies and workshops on Indigenous rights, climate change and territorial management, strengthening dialogue among communities and coordination with partner institutions.	Intercommunity communication remains irregular and territorial dispersion makes coordination difficult. The concentration of responsibilities on some leaders and lack of resources for travel limit continuity of organizational processes.
Agricultural production and food security	Traditional agricultural practices continue with cassava, sweet potato, maize and beans, which form the basis of food sovereignty and Ava Guarani culture. Use and exchange of native seeds and production for household consumption are promoted.	Prolonged droughts, loss of soil fertility and agrochemical contamination from neighboring soybean fields reduce yields. Lack of technical assistance, tools and irrigation infrastructure worsens food insecurity.
Water management and water resources	Some communities have artesian wells and pipeline networks. Experiences in community water management and pump repair have been developed with external support.	Systems are insufficient and deteriorating. Agrochemical contamination affects drinking and irrigation sources, while streams and springs dry up during droughts, generating conflicts over access to water.

Area	Progress	Setbacks or limitations
Forest restoration and territorial management	In partnership with Indigenous pastoral organizations and environmental projects, some communities have begun reforestation with native and fruit species. Protection of forest remnants and prohibition of internal burning are promoted.	Recurrent fires and deforestation on neighboring farms destroy progress. Lack of fire-control equipment and technical assistance limits expansion and sustainability of restored areas.
Environmental education and youth	The community agricultural school, with 50 students in the agricultural technical baccalaureate program, provides a local training space with potential to integrate environmental education and climate-change adaptation.	Young people still do not participate actively in community decision-making. The school needs stronger links with productive and restoration projects, as well as scholarships and environmental-leadership training.
Community health and well-being	Awareness has increased regarding climate-related illnesses such as heatstroke, dengue and respiratory conditions. Prevention campaigns have been carried out with institutional support.	Health infrastructure is precarious and basic medicines are scarce. High temperatures and water contamination frequently cause diarrhea, allergies and dehydration.
Culture and traditional practices	Traditional rituals and foods associated with maize and sweet potato are preserved, together with community celebrations that strengthen Ava Guarani identity.	Loss of forests and water sources affects sacred spaces and ancestral ceremonies. Declining biodiversity limits collection of medicinal plants and natural materials for handicrafts.

6.5.3 Loss and Damage

Communities reported events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. The following table summarizes material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Table 22. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Forest fires (2019–2024)	Losses: approximately 350 hectares of forests and grasslands burned; agricultural plots, crops and domestic animals destroyed. Damage: impoverishment of agricultural soils and impacts on nearby homes.	Losses: disappearance of native forests and wildlife habitats. Damage: ecosystem degradation and increased erosion risk.	Losses: loss of the forest as a source of life and spirituality. Damage: weakening of the symbolic relationship with nature and the tekoha.
Prolonged droughts and water scarcity (2023–2024)	Losses: complete loss of community gardens (60 m ²) and crops due to lack of water; cassava and maize affected. Damage: reduced food availability and household income.	Losses: streams dried up and fish disappeared. Damage: deterioration of springs and reduced water flow.	Losses: loss of traditional gathering and bathing sites. Damage: feelings of powerlessness and loss of community hope.
Stream contamination from agrottoxins and extensive soybean cultivation	Losses: contamination of water sources used for drinking and irrigation. Damage: gastrointestinal illnesses and reduced crops.	Losses: loss of aquatic biodiversity and fish mortality. Damage: persistent water and soil contamination.	Losses: symbolic loss of water as a sacred element. Damage: rupture of the territory's spiritual balance.
Soil impoverishment from fires and overuse	Losses: reduced agricultural productivity and nutrient loss. Damage: lower yields of cassava, maize and sweet potato.	Losses: degradation of the organic layer. Damage: compaction, erosion and loss of organic matter.	Losses: loss of traditional agricultural knowledge. Damage: concern over disruption of the natural balance of the tekoha.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Deforestation and biodiversity loss	Losses: drastic reduction of forested areas and natural subsistence resources. Damage: greater exposure to heat waves and winds.	Losses: disappearance of native animal and plant species. Damage: fragmentation of the natural landscape.	Losses: weakening of territorial and cultural identity. Damage: spiritual pain caused by destruction of nature.
Loss of traditional crops (maize, sweet potato and cassava)	Losses: reduced production of staple foods and loss of crops used in traditional foods such as chipa. Damage: food insecurity.	Losses: loss of native varieties and local seeds. Damage: agricultural genetic erosion.	Losses: loss of cultural practices associated with food. Damage: reduction of collective and ritual activities.
Lack of protection from external fires	Losses: agricultural plots and homes affected by fires originating on neighboring farms. Damage: lack of infrastructure for rapid response.	Losses: loss of trees and natural barriers. Damage: spread of fire toward inhabited areas.	Losses: loss of a sense of control over the territory. Damage: distress and fear among families.
Leasing land to cattle ranchers (improper use of the territory)	Losses: temporary transfer of land use and economic dependence on tenants. Damage: reduced community autonomy.	Losses: soil degradation from overgrazing. Damage: loss of vegetation cover and compaction.	Losses: weakening of the sense of belonging to the territory. Damage: internal conflict between economic use and the spiritual value of the land.
Lack of water infrastructure (pipelines and pumps)	Losses: failures in drinking-water distribution. Damage: scarcity during drought.	Losses: reduced efficiency of supply systems. Damage: pressure on contaminated streams.	Losses: impacts on community well-being. Damage: sense of institutional abandonment.
Loss of social and cultural cohesion	Losses: weakening of collective work among leaders and communities. Damage: reduced capacity to respond to emergencies.	Losses: fragmentation of community resource management. Damage: loss of territorial governance.	Losses: intergenerational disconnection between elders and young people. Damage: weakening of knowledge and spirituality transmission.

6.5.4 New Priorities Identified

During the participatory workshop with the communities that make up AAGAC, leaders agreed on the need to move from conversation to action, prioritizing concrete measures to address the visible effects of climate change in their territory.

The priorities arise from accumulated experiences of crop loss, contamination of water sources, frequent fires, accelerated deforestation and weakening social organization. The main lines of action identified as urgent by the communities are detailed below.

Organizational strengthening and community communication

AAGAC recognizes that its main strength lies in the unity of its 16 member communities, although weaknesses persist in communication among leaders and territorial coordination. Although each community has its own leadership, decisions and management efforts are often carried out in isolation, weakening response capacity during climate and environmental emergencies.

Communities therefore propose revitalizing the internal organizational structure by reactivating coordination spaces, joint planning and a permanent community communication system. This will make it possible to define common priorities, share information on early warnings, fires or contamination, and strengthen collective decision-making.

Continuous training is also proposed for local leaders on territorial management, climate change, conflict resolution, community communication and participatory leadership. A network of trained and coordinated leaders would improve responses to fires, droughts and other environmental emergencies and increase advocacy capacity before public institutions, municipalities and partner organizations.

Finally, intergenerational dialogue among elders, young people and leaders is proposed to recover community values and traditional knowledge, strengthen the sense of belonging to the territory and reconnect organizational management with the Ava Guarani worldview.

Forest restoration and recovery of degraded soils

Forest loss and soil erosion were identified as among the most serious and persistent problems in the territory. Communities emphasized that recurrent fires and intensive land use have progressively impoverished soils, as fire destroys organic matter and volatilizes nutrients essential to agricultural production.

Priority is therefore given to ecological restoration of degraded areas, especially around stream headwaters, roadsides, abandoned agricultural plots and fire-affected zones. Reforestation with native and fruit species adapted to the local climate is considered fundamental to restoring environmental balance, protecting water sources and improving the community microclimate.

Communities value ongoing experiences with Indigenous pastoral organizations that promote small-scale community reforestation and propose expanding them into a participatory model in which each family plants trees on its own land, strengthening forest cover and shared environmental responsibility.

Agroecological and regenerative practices are also proposed, including crop rotation, organic fertilizers, vegetative cover and integration of trees into productive systems (agroforestry), to improve soil fertility, retain moisture and reduce erosion. Forest restoration should also protect homes and crops through natural windbreaks and recover species of cultural and spiritual value to the Ava Guarani People.

Water security and sanitation

El acceso al agua segura se ha vuelto un desafío crítico para las comunidades Ava Guarani de Alto Canindeyú. Los participantes reportaron que muchos ríos están contaminados por la fumigación de la siembra de soja mecanizada, afectando tanto el consumo humano como el riego. Durante las sequías, varios ríos se secan por completo, obligando a las familias a buscar agua en fuentes contaminadas o compartir las pocas corrientes restantes, creando tensiones entre comunidades vecinas.

Existing supply systems—including pipelines, artesian wells and pumps—are deteriorated and poorly maintained, worsening shortages during the dry season. In some cases, pump failure or a broken pipeline leaves entire families without water for weeks. This has caused losses of community gardens and food crops, directly affecting food security.

Communities propose integrated rainwater capture and storage systems, deep wells with solar pumping, and a community preventive-maintenance plan coordinated among leaders and young people trained at the agricultural school. The goal is more autonomous, responsible and sustainable water management.

Basic sanitation and water-treatment projects are also proposed to reduce gastrointestinal illnesses and other conditions associated with contamination. These actions would ensure stable year-round supply and strengthen water resilience, guaranteeing the right to safe water as a foundation for life, health and cultural continuity.

Agroecological production and food sovereignty

AAGAC families expressed great concern about the progressive loss of traditional crops such as cassava, maize and sweet potato, which form the basis of Ava Guarani food and cultural identity. These crops have been affected by prolonged drought, extreme heat, fires and agrochemical contamination from neighboring soybean fields, reducing productivity and making household consumption more difficult.

Declining agricultural production not only creates food insecurity but also threatens food-related cultural practices, including preparation of chipa and other traditional foods considered an essential part of teko—the Ava Guarani way of life. This loss has material, symbolic and emotional impacts, as communities see their crops as a direct connection to their history and spirituality.

In response, communities propose strengthening community agroecological production for both household consumption and generation of surpluses for local markets. This requires continuous technical assistance, access to native and creole seeds, and diversified gardens integrating vegetables, fruit trees and medicinal plants.

Pilot agroecological projects with technical support are also proposed, drawing on previous PROEZA experiences while improving follow-up and training. Communities additionally propose a traditional Ava Guarani community seed bank to conserve and multiply heat- and drought-resistant varieties, ensuring self-sufficiency and food resilience.

Linking production, forest restoration and ancestral knowledge would help rebuild an integrated agroecological system that regenerates soils, maintains biodiversity and reinforces Ava Guarani food sovereignty.

Prevention and control of forest fires

Forest fires were identified as the most serious environmental and social threat faced by Ava Guarani communities in Alto Canindeyú. Since 2019, fires have become more frequent and intense, burning forests, agricultural plots, homes and grasslands and causing serious impacts on biodiversity and soils. Communities noted that many fires originate on neighboring properties or mechanized farms, demonstrating the need for coordination beyond community boundaries.

To reduce damage, communities propose creating Indigenous community fire-prevention and control brigades made up of women and men from different communities. Brigades would have basic equipment and practical training in heat-hotspot monitoring, safe fire management and first aid. Coordination with SEN, INFONA, volunteer firefighters and local municipalities would be key to establishing early-warning and coordinated-response systems.

Communities also propose environmental education and awareness, especially among children and young people, to discourage the use of fire as an agricultural practice and promote respect for forests. Post-fire restoration with adapted native and fruit species would help recover vegetation cover, improve the microclimate and restore ecological and spiritual balance.

Environmental education, youth leadership and coordination with the agricultural school

Young people were identified as key actors for continuity of climate action and stronger community leadership. A community agricultural school operates in AAGAC territory with 50 students in an agricultural technical baccalaureate program on a 120-hectare site. This space is a strategic resource for local development and knowledge transfer to communities.

However, leaders stated that young people still do not participate actively in community planning or decision-making. They therefore propose directly linking the agricultural school with water, forest-restoration, sustainable-agriculture and territorial-management projects, integrating technical content with the Indigenous worldview and Ava Guarani spirituality.

Youth environmental-leadership programs are also proposed to strengthen capacities in territorial planning, climate communication, project management and environmental monitoring. Young people could take active roles in collecting climate data, monitoring water sources and supporting reforestation, becoming local agents of change and climate resilience.

Intergenerational dialogue among elders, youth and teachers would help recover cultural values, oral history and respect for nature as sacred, ensuring transmission of ancestral knowledge, strengthening belonging and consolidating youth leadership committed to defending territory and life.

Community health and well-being

AAGAC communities reported a steady increase in climate-related illnesses such as heatstroke, diarrhea, allergies, respiratory infections and gastrointestinal problems. These conditions are worsened by contaminated water sources, exposure to extreme temperatures and lack of timely medical care and basic medicines.

During intense heat, dehydration, fever and general discomfort are frequent, especially among children and older people. In cold periods, abrupt temperature drops cause acute respiratory illnesses, while water contamination from soybean spraying leads to diarrhea and digestive conditions. This places family health and food security at risk.

Communities propose preventive-health and primary-care programs, prioritizing training of Indigenous health promoters in first aid, traditional medicine and prevention of climate-related illnesses. They also propose community first-aid kits, hygiene and sanitation campaigns, and stronger coordination with public health services so medical teams can periodically reach remote communities.

Traditional knowledge of medicinal plants and natural remedies should also be revitalized and integrated into care and prevention processes. These actions would strengthen physical, emotional and spiritual resilience, with particular attention to women, children and older people, recognizing that Ava Guarani health is deeply connected to the health of the territory and nature.

Table highlights the new priorities defined by AAGAC communities for the 2025–2030 period, highlighting the prioritized initiatives, their central challenges and the main proposed actions.

Table 23. Summary of AAGAC’s new priorities (2025–2030)

Proposed initiative	Challenge / description	Proposed actions
Organizational strengthening and community communication	AAGAC brings together 16 Ava Guarani communities, but territorial dispersion and weak communication among leaders undermine coordination and response capacity during climate and environmental emergencies.	Reactivate intercommunity coordination and joint planning; create a permanent communication and early-warning system for fires, droughts or contamination; train leaders in territorial management, climate change, conflict resolution and community communication; create a coordinated leadership network; promote intergenerational dialogue.
Forest restoration and recovery of degraded soils	Deforestation, fires and intensive land use have caused nutrient loss, erosion and declining fertility, affecting agricultural production and water resources.	Reforest degraded areas, springs and roadsides with native and fruit species; expand Indigenous pastoral reforestation experiences and family tree planting; implement crop rotation, organic fertilizers, vegetative cover and agroforestry; establish windbreaks and restoration zones; recover species of cultural and spiritual value.

Proposed initiative	Challenge / description	Proposed actions
Water security and sanitation	Streams are contaminated by spraying, wells and pipelines are deteriorated, and prolonged droughts reduce water availability, affecting health and production.	Rainwater capture and storage; deep wells with solar pumping; community maintenance plan involving agricultural-school youth; basic sanitation and water-treatment projects; autonomous and sustainable water-resource management.
Agroecological production and food sovereignty	Loss of traditional cassava, maize and sweet potato crops due to drought, extreme heat and agrochemicals creates food insecurity and loss of cultural practices.	Strengthen community agroecological production with continuous technical assistance, native seeds and diversified gardens; pilot projects with technical support; create a traditional Ava Guarani community seed bank; integrate agriculture, forest restoration and ancestral knowledge.
Prevention and control of forest fires	Recurrent fires since 2019 are the main environmental threat, destroying forests, agricultural plots and homes and often originating on neighboring farms or private land.	Create Indigenous community fire-prevention and control brigades with equipment and mobile tanks; train brigades in hotspot monitoring, fire management and first aid; coordinate with competent institutions for early warning and rapid response; environmental education on responsible fire use; post-fire restoration with native and fruit species.
Environmental education, youth leadership and coordination with the agricultural school	Young people have technical training but limited participation in community management, and formal education is disconnected from territorial needs.	Link the community agricultural school with water, restoration, production and environmental-monitoring projects; youth and environmental leadership programs with an intercultural approach; involve youth in water-source monitoring, reforestation and climate communication; intergenerational dialogue to recover oral history and Ava Guarani cultural values.

Proposed initiative	Challenge / description	Proposed actions
Community health and well-being	Climate-related illnesses—heats-troke, diarrhea, allergies and respiratory diseases—are increasing and are worsened by contaminated water and lack of medical care.	Preventive-health and primary-care programs with Indigenous health promoters; first-aid and climate-related illness prevention training; community first-aid kits and hygiene/sanitation campaigns; integrate traditional medicine and medicinal-plant knowledge; strengthen physical, emotional and spiritual resilience.

6.6. Association of Ava Guarani Communities of Alto Paraná (ACIGAP)

The Association of Ava Guarani Communities of Alto Paraná (ACIGAP) brings together communities of the Ava Guarani People from the district of Itakyry and other districts of the department of Alto Paraná, mainly engaged in traditional agricultural production, handicrafts and preservation of their ancestral spirituality. In total, it represents around 15 Indigenous Ava Guarani communities, organized around territorial defense, cultural identity and organizational strengthening in the face of climate-change challenges.

In their territories, ACIGAP member communities promote sustainable agricultural practices, reforestation with native species and food-security projects, integrating traditional knowledge with contemporary technical knowledge.

In cultural and spiritual life, women play a central role. They lead community rituals and use the tacuapu, a bamboo staff symbolizing connection with nature and feminine energy. This spiritual dimension reinforces the holistic vision of the Ava Guarani People, in which the relationship with the land and natural elements forms the basis of community and ecological balance.

However, ACIGAP faces strong pressures on its territory. The immediate surroundings are dominated by expansion of the agricultural frontier, with extensive soybean plantations that have fragmented the landscape, reduced forest cover and degraded soils. Only one community retains around 500 hectares of scattered forest, while the others have lost much of their vegetation cover, affecting biodiversity, water sources and local climate stability. These processes of deforestation and land-use change increase climate vulnerability and reduce community resilience.

This is compounded by a serious problem of territorial and legal insecurity. Several communities lack property titles—around 2,800 hectares remain unregularized—and several face overlapping titles with private properties, creating conflicts and risks of eviction. This reality not only violates the communities' human and territorial rights but also limits their ability to implement sustainable and climate-adaptation projects because they lack legal certainty over the land where actions are carried out.

The Ava Guaraní People maintain an ancestral presence in Paraguay's Eastern Region, with deep historical, cultural and spiritual roots in the territory. Defending this sacred relationship with nature is an essential pillar of ACIGAP, which seeks to restore degraded ecosystems, recover native forests and strengthen food sovereignty as a form of cultural and climate resilience.

In this context, structural challenges—including lack of land titling, weak implementation of the legal framework concerning Indigenous Peoples, and absence of effective mechanisms for prior consultation and participation—directly affect communities' adaptation and mitigation opportunities. Overcoming these limitations is essential to advance sustainable territorial management based on collective rights, climate resilience and full recognition of Indigenous Peoples as guardians of environmental balance.

6.6.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 24. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts, heat waves and resulting forest fires	Droughts are the most recurrent and damaging phenomenon. In 2020, the community lost all bean, cassava and sweet-potato crops after three months without rain. These conditions are worsened by the lack of tree shade and soil compaction, which prevents moisture retention. During 2022–2024, fires were recorded around the communities because of high temperatures and lack of rainfall. Although no fires had been reported in 2025 at the time of the source document, risk remains permanent because of low environmental humidity and loss of natural forest windbreaks. Prolonged droughts and forest loss have also affected streams. Water for consumption and irrigation is scarce and of poor quality, affecting health, hygiene and agricultural production.
	Heavy rainfall and strong winds	Heavy rainfall causes soil erosion, crop losses and deterioration of community roads. In some cases, it is accompanied by strong winds that damage homes, roofs and precarious structures, interrupting mobility and access to basic services.
	Frosts and low temperatures	In some winters, early or late frosts alter natural crop cycles. When they occur at the appropriate time, frosts contribute to biological control of pests and diseases, but out-of-season frosts have the opposite effect, favoring pests and pathogens that affect subsistence crops, especially cassava, sweet potato and maize, compromising household food security. Their occurrence has become more irregular and unpredictable because of changing climate patterns and seasonal variability.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

6.6.2 Progress and Setbacks in Climate Action

During the Plan update process, important experiences were identified that represented progress, as well as limitations in addressing climate change:

Table 25. Progress and setbacks of ACIGAP

Area	Progress	Setbacks or limitations
Agricultural production and food security	Traditional agricultural practices based on subsistence crops (cassava, maize, sweet potato and beans) are maintained using native seeds and crop-rotation and soil-conservation methods. Agrochemical-free production is promoted in keeping with their worldview of respect for the land.	Prolonged droughts and soil degradation drastically reduce productivity, and in some years harvests are completely lost. Lack of shade and vegetation cover increases evaporation and hinders moisture retention. Basic inputs, continuous technical assistance and logistical support are needed to strengthen food security and agroecological adaptation.
Reforestation and ecological restoration	Communities participate in the PROEZA Project, with 0.8 hectares per family reforested using native species. Ten families have already implemented this practice, strengthening knowledge of forest management and restoration of degraded areas.	Lack of land titles limits expansion and sustainability. The current scale is insufficient to reverse forest loss or restore water balance. Resources are lacking for maintenance, technical follow-up and protection of seedlings from fires or grazing.
Territorial management and land titling	Some communities hold property titles and manage territorial defense with support from FAPI and INDI. Collective efforts are undertaken to regularize land and protect areas of environmental and cultural value.	Approximately 50% of the territory (around 2,800 ha) remains untitled. Overlapping titles with private properties create legal insecurity, territorial conflicts and eviction risk, discouraging long-term productive or environmental investments.
Culture, women and handicrafts	Women play a central role in spirituality, ceremonies and handicraft production. They make baskets, thermos covers, necklaces and ornaments from natural fibers, seeds and tacuara. Their leadership is essential to cultural transmission and community management.	Loss of native forest reduces access to raw materials such as tacuara and seeds. Lack of stable markets and commercial training limits handicraft development. Support is needed for cultural valorization, access to fairs and sustainable marketing channels.

Area	Progress	Setbacks or limitations
Education and youth	Young people participate in educational processes, including a case of virtual university education that demonstrates commitment to training and emerging leadership.	Lack of digital connectivity, scholarships and transportation limits access to secondary and higher education. Young people face economic difficulties and limited participation in community decision-making, weakening generational succession.
Climate-change adaptation and training	Communities have participated in training on climate change, territorial rights, risk management and early-warning systems promoted by FAPI, UN-REDD+ Paraguay and local partners. These processes strengthen environmental awareness and organization.	Training processes do not always translate into tangible resources or concrete projects in the territory. Institutional follow-up and sustained funding are lacking for local adaptation actions such as community brigades, water-harvesting systems or seed banks.
Community organization and governance	ACIGAP maintains a coordination space that brings together 32 Ava Guaraní communities, promoting collective decision-making and strengthening its organizational structure.	Weaknesses persist in intercommunity communication and coordination with local governments, making project management and climate-emergency response difficult. Communities propose reactivating planning spaces and strengthening the network of leaders.

6.6.3 Loss and Damage

This section presents events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. The following table summarizes material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Table 26. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Prolonged droughts (2020–2024)	Losses: total loss of bean, cassava and sweet-potato crops, the basis of household consumption; drastic food reduction and increased spending on external products. Damage: food insecurity and reduced household economic capacity.	Losses: depletion of water sources, drying of ponds and loss of soil moisture. Damage: progressive degradation of agricultural soils, loss of natural fertility and increased erosion.	Losses: weakening of traditional agricultural rituals due to lack of harvests. Damage: discouragement and loss of spiritual connection with the land as a source of life.
Recurrent forest fires (2022–2024)	Losses: forests, agricultural plots, homes and agricultural tools burned. Damage: economic losses and need to rebuild crops and infrastructure.	Losses: disappearance of vegetation cover and wildlife mortality. Damage: soil impoverishment, higher local temperatures and greater risk of new fires.	Losses: loss of the forest as a spiritual and gathering space. Damage: alteration of the symbolic balance of the tekoha and rupture with sacred places.
Lack of legal security over land	Losses: inability to develop sustainable projects and suspension of productive initiatives because of lack of titles. Damage: risk of conflict and loss of invested resources in the event of eviction.	Losses: lack of protection for ancestral territory and natural resources. Damage: limited ability to plan ecological restoration or sustainable production.	Losses: loss of control over the tekoha. Damage: fear and spiritual uncertainty regarding possible evictions or territorial conflicts.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Deforestation from soy-bean expansion	Losses: loss of timber, food and natural medicines from the forest. Damage: reduced livelihoods and displacement of fauna used in traditional diet and medicine.	Losses: disappearance of native forest and biological corridors. Damage: alteration of the local microclimate, erosion and biodiversity loss.	Losses: loss of the forest as a source of spirituality and ancestral learning. Damage: rupture with sacred spaces and forest-related spiritual identity.
Degradation of agricultural soils	Losses: loss of organic matter, nutrient depletion and lower crop productivity. Damage: need for fertilizers or external inputs to maintain production.	Losses: erosion of fertile soil layers. Damage: loss of natural regeneration capacity and advancing desertification processes.	Losses: weakening of traditional agricultural knowledge. Damage: community frustration over environmental degradation and declining value of agricultural work.
Contamination from soy-bean spraying	Losses: contamination of crops, water sources and domestic animals. Damage: increased respiratory, skin and stomach illnesses.	Losses: persistent contamination of soils and waterways. Damage: impacts on soil microorganisms and reduced environmental quality.	Losses: loss of the sense of territorial purity. Damage: weakening of spiritual balance between people and nature.
Decline in handicraft production	Losses: scarcity of raw materials such as tacuara, tacuarembó and tacuatí due to forest loss. Damage: reduced income for women artisans.	Losses: disappearance of plant species traditionally used in handicrafts. Damage: reduction of bamboo forest and natural-fiber areas.	Losses: loss of a traditional women's craft and associated knowledge. Damage: weakening of cultural and spiritual identity linked to handicrafts.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Weakening of food security	Losses: reduced production for household consumption and greater dependence on external food. Damage: higher cost of living and household economic vulnerability.	Losses: disappearance of edible and medicinal wild species. Damage: loss of ecological and nutritional balance.	Losses: loss of the cultural value of traditional food. Damage: forced dietary change and weakening of the sense of community.
Loss of biodiversity and natural resources	Losses: reduction of natural resources used in medicine, art and food. Damage: loss of supplementary income and lower availability of local materials.	Losses: decline of flora and fauna useful to community life. Damage: alteration of traditional ecosystems and loss of ecosystem services.	Losses: loss of ancestral knowledge related to the use of plants and animals. Damage: weakening of the spiritual connection among women, nature and creation.
Difficulties accessing education and opportunities for young people	Losses: limited access to secondary and higher education due to lack of resources and connectivity. Damage: limited employment opportunities and greater family dependence.	Losses: young people have fewer opportunities to learn from elders and continue knowledge about territorial use and care. Damage: progressive loss of traditional knowledge about agriculture, forest conservation and community organization, weakening cultural and environmental continuity.	Losses: loss of intergenerational learning. Damage: rupture of ties between young people and elders, weakening cultural transmission.
Weakening of organization and community management	Losses: fewer meetings, workshops and collective activities due to lack of financial resources. Damage: reduced capacity to respond to emergencies or environmental projects.	Losses: lack of coordination in territorial and natural-resource management. Damage: weakening of conservation and restoration actions.	Losses: temporary loss of community cohesion. Damage: erosion of traditional leadership and the sense of collective unity.

6.6.4 New Priorities Identified

During the Climate Action Plan update process, ACIGAP communities defined strategic priorities to strengthen climate adaptation, protect their territory and ensure the cultural and environmental sustainability of the Ava Guarani People. These priorities arise from direct experience with climate impacts, forest loss and the socioeconomic challenges they face every day.

The main lines of action identified as urgent by the communities are detailed below.

Land regularization and titling

Legal insecurity over land is one of the main obstacles to climate adaptation and sustainable development in ACIGAP communities. Around 50% of the territory—approximately 2,800 hectares—remains without property titles, and in several cases documents overlap with private farms, creating conflicts and permanent eviction risk.

This situation prevents long-term territorial planning and limits productive, environmental and social projects because families cannot invest in reforestation, infrastructure or water systems without certainty over land possession. Lack of titling also restricts access to State or cooperation programs requiring legal territorial documentation.

Collective land regularization and titling is therefore an enabling condition for climate action: it can ensure ecosystem stability, strengthen community territorial management and provide legal certainty for sustainable production, restoration and conservation practices. Progress requires interinstitutional coordination among INDI, INDERT, local governments and the communities, with technical and legal support to resolve overlaps and ensure the integrity of ancestral Ava Guarani territory.

Ecological and productive restoration of the territory

Loss of forest cover and soil degradation are among the main concerns expressed by ACIGAP communities. Deforestation driven by soybean expansion, together with fires and prolonged droughts, has drastically reduced the territory's capacity to conserve water, regulate the local climate and sustain biodiversity.

Although the PROEZA Project has promoted initial reforestation with native species—equivalent to 0.8 hectares per family—leaders emphasize the need to expand toward comprehensive territorial restoration combining ecological, productive and cultural objectives.

The proposed approach integrates ecological reforestation to protect waterways, restore soils and create biodiversity corridors with community agroforestry systems incorporating yerba mate, native fruit trees and bamboo (tacuara) as sustainable alternatives that generate economic and environmental benefits. Restoration should be participatory and territory-based, respecting traditional knowledge of native species, their management and spiritual relationship with the forest.

Strengthening food security

Climate change has severely affected traditional Ava Guaraní agricultural production, reducing yields of basic subsistence crops and increasing dependence on external food. Prolonged droughts, soil degradation, pests and indiscriminate agrochemical use in neighboring crops have altered production cycles and placed community food sovereignty at risk.

Communities prioritize recovering and strengthening traditional cassava, sweet-potato, maize and bean crops through technical assistance, agricultural tools, native seeds and productive support systems. Temporary incentives or support, such as food or basic inputs, are also proposed during the transition period so families do not abandon production for lack of immediate resources.

Communities also request training and guidance on responsible use of agricultural inputs because natural biological control has been severely affected by massive spraying in adjacent soybean crops. Food security requires balancing ancestral knowledge, appropriate climate-adaptation technologies and environmental monitoring to ensure soil, water and food quality. Food autonomy strengthens nutrition, health and territorial resilience while recovering sustainable practices consistent with the Guaraní worldview of caring for the land (yvy porã).

Sustainable yerba mate production

Community production of yerba mate (*Ilex paraguariensis*) was proposed as a new economically and environmentally sustainable alternative capable of strengthening livelihoods and contributing to territorial restoration. Deeply linked to Guaraní culture, yerba mate is well adapted to the local climate and can be cultivated in agroforestry systems with native species, avoiding soil degradation and improving water infiltration.

It also offers an opportunity for productive reforestation that combines ecological benefits with income generation, especially for women and young people interested in joining the value chain. Implementation requires technical training, access to quality seedlings, tools and productive follow-up to ensure long-term sustainability and appropriate crop management. Through this initiative, communities seek to recover an ancestral Guaraní crop while promoting economic diversification and community autonomy.

Sustainable small-livestock production

As a complement to agricultural and forest production, communities propose strengthening the raising of small livestock—chickens, pigs, ducks and other short-cycle species—to ensure protein availability, improve household nutrition and generate additional income.

This traditional activity can use local resources with low environmental impact and be developed at household scale or as a community enterprise. It also provides a concrete opportunity for women and youth leadership in sustainable production units and family economic decision-making.

Success requires veterinary technical support, access to basic inputs, light infrastructure such as pens, drinking troughs and sheds, and continuous assistance. Integrated into adaptation strategies, small-livestock production reduces food and economic vulnerability while strengthening household resilience and self-sufficiency.

Revitalization of traditional handicrafts

ACIGAP women keep alive an ancient handicraft tradition, making baskets, necklaces, thermos covers and ornaments from natural fibers, seeds, roots and tacuara. This practice is both a source of supplementary income and an act of cultural and spiritual transmission, with each piece reflecting connection to nature and inherited knowledge.

Women artisans face scarcity of raw materials due to native-forest loss, lack of stable markets or fair intermediaries, and limited training in design, packaging, pricing and marketing. An integrated handicraft-strengthening program is therefore proposed, including sustainable planting and management of tacuara, tacuarí and tacuatí; technical and creative training in design, quality and product presentation; connections to fairs, cultural spaces and digital platforms; and stronger organization of women artisans to promote cooperation, self-management and recognition of women's work.

Beyond economic autonomy, revitalizing handicrafts preserves ancestral knowledge and cultural identity and strengthens women's role as guardians of Ava Guaraní spirituality and material culture.

Education, youth and community leadership

ACIGAP communities recognize education as essential for cultural continuity and sustainability of community processes. Limited nearby educational opportunities force many young people to migrate or leave school. Some currently pursue higher or technical education virtually, but face major economic and digital-connectivity constraints.

Communities propose scholarships or community educational support for Indigenous youth, partnerships with universities, technical institutes and virtual platforms, and improved digital connectivity and community internet spaces. They also propose stronger youth leadership in environmental, cultural and community-management issues, with young people participating in local decision-making, climate action and territorial defense.

Strengthening education and youth leadership ensures generational succession in territorial management while keeping cultural identity and traditional knowledge alive.

Organizational strengthening and community communication

ACIGAP is a representative body coordinating more than thirty Ava Guarani communities. Although its organizational structure is recognized for its legitimacy and history, communities identified persistent weaknesses in internal coordination, collective planning and communication among local leaders.

Decisions are often made in isolation without agile mechanisms to share information on climate alerts, territorial management or advocacy processes. This fragmentation reduces response capacity during emergencies such as fires or droughts and limits equitable participation by women and young people.

Communities propose revitalizing ACIGAP's internal structure by reactivating assemblies, planning and territorial-coordination spaces and establishing a permanent community communication system based on networks of local leaders sharing information on climate events, environmental threats, institutional activities and ongoing projects.

Continuous training in territorial management, climate change, participatory leadership, conflict resolution and advocacy communication is also considered essential. Organizational strengthening will consolidate solid and representative Indigenous governance capable of engaging public institutions, local governments and private actors from a position of autonomy and unity, while stronger communication will reinforce social and climate resilience.

Table presents the new priorities defined by ACIGAP communities for the 2025–2030 period, highlighting the prioritized initiatives, their central challenges and the main actions.

Table 27. Summary of ACIGAP’s new priorities (2025–2030)

Proposed initiative	Challenge / description	Main actions
Land regularization and titling	Lack of property titles and overlaps with private farms create legal insecurity and territorial conflicts and limit investment in adaptation, reforestation or infrastructure projects.	Pursue collective land regularization and titling before INDI and INDERT; participatory cadastral survey and boundary updating; technical and legal support for conflict resolution; awareness of territorial rights and Indigenous governance.
Ecological and productive restoration of the territory	Forest loss and soil degradation reduce water availability, fertility and biodiversity. Current actions such as PROEZA are positive but still limited.	Expand comprehensive reforestation and restoration with native species; agroforestry with yerba mate, fruit trees and tacuara; community nurseries and forest-management training; restore springs, waterways and degraded areas.
Strengthening food security	Droughts, pests and massive spraying have reduced productivity and quality of subsistence crops, creating external dependence and nutritional risk.	Recover cassava, maize, beans and sweet potato; resilient household and community gardens; technical assistance and native seeds; temporary food incentives/support; training in sustainable soil management and responsible input use.
Sustainable yerba mate production	Communities seek income diversification through a culturally significant crop compatible with the environment, but lack technical assistance and start-up resources.	Community yerba mate plantations under agroforestry systems; seedlings, tools and technical training; integrate women and youth into the value chain; coordinate with cooperatives or companies promoting fair trade.
Sustainable small-livestock production	Protein scarcity and unstable income increase food vulnerability; inputs, infrastructure and veterinary support are lacking.	Household or community units for chickens, pigs and ducks; training in health management, feeding and marketing; basic inputs, materials and infrastructure; promote women and youth leadership.

Proposed initiative	Challenge / description	Main actions
Revitalization of traditional handicrafts	Artisans face scarce raw materials and limited markets; forest loss and lack of technical support threaten this ancestral practice.	Integrated handicraft-strengthening program; sustainable planting and management of tacuara and tacuatí; design, packaging, pricing and sales training; connect with fairs, digital platforms and cultural shops; strengthen women artisans' organization.
Education, youth and community leadership	Lack of educational opportunities and connectivity limits professional development and generational succession in community management.	Scholarships and community educational support; agreements with universities and technical institutes; improved digital connectivity; youth leadership spaces on environmental and cultural issues; include youth in climate planning and territorial management.
Organizational strengthening and community communication	Weak coordination and communication among communities limit collective planning and climate-emergency response.	Reactivate assemblies and territorial coordination; community communication system for alerts and climate management; train leaders in participatory leadership, communication and conflict resolution; promote equitable participation by women and youth.

6.7. Yvy Paraná Rembeype Association

The Yvy Paraná Rembeype Association is a representative organization of the Ava Guarani Paranaense Indigenous People, established to claim the territorial, cultural and environmental rights of communities displaced by the construction of the Itaipú Binational Dam.

It was created on June 26, 1998, initially under the name Yvy Paraná Rembeype Commission, in response to the dispossession and forced displacement of numerous Ava Guarani families who had ancestrally inhabited the banks of the Paraná River. These communities were uprooted from their traditional territories by flooding caused by the dam, resulting in the loss of their lands, homes, crops and spiritual spaces.

Since then, the association has played a central role in the struggle for territorial recovery and defense of the collective rights of the Ava Guarani People, promoting recognition of its communities by the Paraguayan State and their participation in planning processes related to climate change, sustainable development and natural-resource management.

Today, the Yvy Paraná Rembeype Association brings together various communities located mainly in the departments of Canindeyú and Alto Paraná, territories that form part of the former ancestral Ava Guarani Paranaense space. The organization operates in a participatory and horizontal manner, with the community assembly as the highest decision-making body and representatives elected democratically.

Throughout its institutional history, the association has achieved important progress, including obtaining legal personality, which enables access to formal spaces for dialogue, cooperation and Indigenous representation at the national level. Its membership in the Federation for the Self-Determination of Indigenous Peoples (FAPI) also strengthens its coordination capacity on climate action, human rights and protection of territory and biodiversity.

The work of Yvy Paraná Rembeype is grounded in the Ava Guarani worldview, which understands the land—Yvy—as a source of life, spirituality and balance. From this perspective, defending territory and the environment responds not only to material needs but also to a principle of respect and reciprocity with nature, considered essential to the cultural and physical survival of the People.

6.7.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 28. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts and forest fires	Communities face drought periods lasting several months, affecting water availability for human consumption and agricultural production. Lack of rainfall has reduced stream and well flows, causing losses in crops and household gardens as well as water shortages for animals. This creates food insecurity and increases dependence on external assistance. Drought and inappropriate use of fire to clear agricultural plots have generated frequent fires that destroy forests, crops and beehives, reduce local biodiversity, threaten family health through smoke exposure and affect natural forest regeneration.
	Heavy rainfall with flooding and landslides, strong winds and electrical storms	Increasingly frequent torrential rains cause flooding that destroys homes, roads and agricultural plots, especially near streams. Soil erosion and landslides affect crops and reduce soil fertility. The combination of rainfall and deforestation increases the risk of soil loss and contamination of water sources. Storms with intense gusts and lightning have damaged roofs, precarious homes and community structures, brought down trees and caused prolonged power outages.
	Extreme heat waves	During summer, temperatures above 40°C affect the health of children and older people, reduce agricultural productivity and accelerate soil-moisture loss. Lack of shade and vegetation worsens extreme heat, increasing dehydration and heat exhaustion.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

Cuadro 29. Avances y retrocesos

Area	Progress	Setbacks or limitations
Production and environment	Implementation of household and community gardens using an agroecological approach; inclusion of traditional crops (cassava, maize, beans) and diversification with short-cycle vegetables; participation in reforestation and degraded-area recovery programs with support from partner institutions.	Declining soil fertility due to deforestation and erosion; dependence on purchased food due to loss of traditional crops; water scarcity for irrigation during droughts.
Territorial management and conservation	Active participation in local environmental-management spaces and dialogue with the Itaipú Binational Entity; promotion of ecological restoration with native species; coordination with FAPI and other Indigenous networks for territorial defense.	Restrictions on access to natural reserve areas administered by Itaipú; loss of ancestral territory and limitations on traditional hunting, fishing and gathering practices; limited capacity to control external activities affecting biodiversity.
Infrastructure and housing	Specific improvements to roads and access to basic services with municipal support; construction of housing through community self-management and development-project support.	Precarious housing without climate adaptation, affected by heavy rainfall and high temperatures; lack of adequate community infrastructure such as health centers, schools and meeting spaces.
Animal production and livelihoods	Initial experiences in fish farming and beekeeping; modest progress in productive diversification and local income generation.	Lack of technical training and resources to consolidate productive projects; limited storage and marketing infrastructure; difficulties accessing local markets.

Area	Progress	Setbacks or limitations
Education, culture and social cohesion	Intergenerational cultural activities with community elders; promotion of recovery of traditional knowledge and strengthening of Ava Guarani identity; youth participation in environmental and leadership training workshops.	Lack of technical education and vocational-training programs that encourage young people to remain in their communities; progressive loss of traditional knowledge; youth migration to urban centers due to lack of opportunities.

6.7.3 Loss and Damage

The assessment identified events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. The following table summarizes material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Table 30. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Degradation of aquatic and forest ecosystems	Losses: decline in fishing as a source of food and income. Damage: loss of timber materials and medicinal plants for household and handicraft use.	Losses: reduced flow of the Paraná River, disappearance of aquatic fauna and forest fragmentation. Damage: biodiversity loss and deterioration of ecological balance.	Losses: loss of spiritual connection with water and forest. Damage: weakening of ritual practices related to fishing and nature.
Vulnerability of infrastructure and mobility	Losses: destruction of homes and rural roads by heavy rainfall and storms. Damage: temporary isolation of communities and difficulties with transport and marketing.	Losses: soil erosion and vegetation-cover loss due to extreme rainfall. Damage: impacts on micro-watersheds and natural access routes.	Losses: loss of community spaces and damaged schools. Damage: emotional impacts and loss of a sense of territorial security.
Community-health impacts and exposure to agrotoxins	Losses: increase in respiratory, gastrointestinal and reproductive illnesses and higher medical-care costs. Damage: reduced capacity for work and production.	Losses: contamination of air, soil and water from spraying. Damage: alteration of local fauna and flora.	Losses: loss of bodily-spiritual balance linked to nature. Damage: suffering among women and elders from conditions attributed to contamination.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Cultural and spiritual erosion	Losses: loss of traditional knowledge and ancestral cultural practices (rain dance, reading weather signs). Damage: weakening of elder knowledge-holders' leadership.	Losses: disappearance of natural elements used in rituals. Damage: alteration of the cultural landscape.	Losses: loss of the community's spiritual fabric. Damage: decline in collective self-esteem and sense of belonging.
Forced territorial displacement (Sauce Community)	Losses: total loss of ancestral territory due to the Itaipú Dam; destruction of homes and livelihoods. Damage: living in tents without access to basic services.	Losses: loss of natural surroundings and subsistence resources. Damage: environmental deterioration of the resettlement area.	Losses: definitive rupture with the original tekoha. Damage: collective trauma and loss of territorial identity.
Expansion of soybean cultivation and deforestation	Losses: loss of cultivable land, water sources and game animals. Damage: impoverishment of the community economic base.	Losses: disappearance of native forests and displacement of fauna. Damage: increased heat and environmental dryness.	Losses: loss of the forest's cultural and spiritual landscape. Damage: feeling of invasion and vulnerability in the face of agribusiness.

6.7.4 New Priorities Identified

As part of the process to update the Indigenous Climate Action Plan (PIAC), communities belonging to the Yvy Paraná Rembeype Association of the Ava Guarani Paranaense People identified priorities aimed at strengthening climate resilience and ensuring the sustainability of their livelihoods. These actions respond to environmental, social and cultural impacts arising from ecosystem degradation, loss of ancestral territory, and pressures from the agricultural and energy frontiers in the Eastern Region.

Sustainable access and food security in Itaipú protected areas

Communities live immediately around natural reserves administered by the Itaipú Binational Entity, originally created as environmental protection zones. Despite their geographic proximity and historical relationship with these territories, communities are not permitted to access these areas for traditional activities such as artisanal fishing, subsistence hunting or gathering wild fruits and medicinal plants.

This creates a profound environmental and social contradiction: Indigenous communities that historically maintained a harmonious relationship with nature are excluded from spaces they formerly inhabited and cared for, while activities such as selective tourism or scientific research are permitted within the reserves. Lack of access worsens food insecurity, especially during prolonged drought or crop losses, when forests and waterways could provide alternative sources of protein, fibers, wild fruits, honey and traditional medicines.

From the Ava Guarani worldview, *tekoha* (territory) is not merely a physical space but a spiritual, ecological and cultural whole where life unfolds. Forced separation from traditional ecosystems therefore represents loss of material as well as symbolic and spiritual balance.

The initiative proposes a direct dialogue and cooperation mechanism with the Itaipú Binational Entity to formalize agreements for sustainable access to reserves under its administration. Regulated access should be based on traditional use, ecological sustainability and respect for biodiversity, allowing controlled artisanal fishing, gathering of non-timber forest products, community participation in monitoring and joint management of protected ecosystems, and environmental education and transmission of ancestral knowledge to children and youth.

Communities would in turn collaborate in sustainable-use rules and community control, fire prevention, anti-poaching efforts and protection of threatened species. The proposal seeks to balance environmental conservation with the cultural and food rights of the Ava Guarani People, strengthening autonomy, climate resilience and adaptation capacity.

Cultural and spiritual revitalization linked to the territory

The Ava Guarani People have experienced profound cultural and spiritual erosion due to forest loss, forced displacement and drastic changes in natural cycles. Forests, rivers and hills are not merely natural resources but sacred spaces connected to protective spirits and collective memory. Environmental destruction has weakened fundamental ritual practices such as dances requesting rain, ceremonies of gratitude to the land and collective songs honoring life and harvest cycles.

This disconnection has especially affected younger generations, who have grown up without access to places where elders learned to read weather signs, interpret birdsong or make offerings to the forest. Loss of this knowledge is both a loss of intangible heritage and a loss of climate resilience, because these practices transmitted deep knowledge about climate behavior, rainfall, winds and agricultural cycles.

The initiative proposes community gatherings with elders and spiritual leaders; reactivation of traditional dances, songs, ceremonies and rituals; creation of cultural-transmission spaces such as houses of wisdom, community schools and open workshops; and cultural exchanges among Ava Guarani communities.

These actions seek to reconnect the spirit of the People with ancestral territory, reaffirming that environmental and cultural restoration are inseparable. Cultural revitalization is not only resistance to forest loss but also a strategy for community healing and reconstruction of the spiritual fabric, restoring hope, cohesion and purpose to new generations.

Ecological restoration with a multipurpose approach

Extensive deforestation and progressive soil degradation have caused significant loss of fertility and biodiversity in Ava Guarani Paranaense territories. Indiscriminate clearing for agricultural expansion, burning practices and intensive agrochemical use in neighboring areas have created ecological imbalance, reducing productivity and access to firewood, fruits, medicinal plants, construction materials and wildlife habitats while altering the local microclimate.

Yvy Paraná Rembeype proposes a participatory ecological-restoration program integrating native-forest regeneration with sustainable production systems under a multipurpose approach. Restoration is understood not only as a technical action but also as a cultural and spiritual act of reconnection with the land, involving families and community leaders in species selection, nursery management and growth monitoring.

Planned actions include participatory reforestation with native species of high ecological and cultural value such as cedar, lapacho, yvyra pytã, guatambú, peterevy and native fruit species; agroforestry systems combining traditional crops with

native or fruit trees; protection and restoration of micro-watersheds and water sources; sustainable forest use through controlled firewood production, non-timber forest-product gathering and beekeeping; and community nurseries as spaces for learning, local employment and youth environmental education.

This multipurpose approach seeks to restore essential forest functions—thermal regulation, soil protection, water retention and habitat provision—while strengthening food security, household economies and cultural identity. Ecological restoration thus also repairs the spiritual relationship with the land.

Community energy forests (access to firewood)

Widespread deforestation has created a critical shortage of firewood, an essential resource in daily Indigenous life and a symbolic element associated with the community fire as a space for gathering, conversation and oral transmission of ancestral knowledge. Families now travel long distances in high temperatures to collect dry branches or fallen trees, particularly affecting women, girls and older people.

Firewood scarcity has also changed food habits, while alternative fuels such as charcoal or gas are expensive or inaccessible. The association therefore proposes a community reforestation program using fast-growing species for domestic use, creating collectively managed community energy forests protected from indiscriminate logging.

Selected species should combine ecological value, rapid growth and local-climate adaptability, such as inga, eucalyptus, grevillea or guajayvi, complemented by native species providing shade, soil protection and wildlife habitat. Mixed planting along fences and plot boundaries would integrate firewood production with agroforestry.

The project also includes training in sustainable resource management, controlled pruning and efficient fire use, together with gradual transition to improved efficient cookstoves that use less firewood and reduce indoor smoke. These areas would contribute simultaneously to climate adaptation, emissions mitigation, rural energy security and restoration of the spiritual bond with territory.

Food security and sustainable livelihoods

The Ava Guarani Paranaense People face critical food insecurity and loss of traditional livelihoods due to accumulated impacts of climate change, deforestation, agrochemical contamination and territorial restrictions. Prolonged droughts, extreme rainfall and out-of-season frosts have reduced agricultural production, while soil degradation and forest loss have limited access to wild fruits, medicinal plants and other resources.

The association promotes an integrated strategy combining traditional practices and agroecological techniques to recover food sovereignty and diversify livelihoods. Priority actions include household and community gardens with native and creole seeds resistant to drought and adapted to the territory; traditional crops such as cassava, maize, beans and sweet potato; improved irrigation and water storage through cisterns, reservoirs or small-scale channels; and conservation of micro-watersheds.

Sustainable economic alternatives include community fish farming in available water bodies or adapted ponds and beekeeping in areas with native-forest remnants. Fish farming strengthens household protein supply and reduces pressure on overexploited rivers, while beekeeping supports pollination, biodiversity, honey production and ecological balance.

Technical training and community support are proposed in agroecological management, beekeeping, fish farming, water management, sanitary control and marketing, complemented by community demonstration units. Active participation by women and young people is prioritized to strengthen equity, community cohesion and continuity of sustainable practices.

Education, leadership and youth rootedness for community sustainability

Growing youth migration is one of the most concerning social challenges in Yvy Paraná Rembeype territories. Lack of educational opportunities, limited technical training and scarce local employment push many young people to leave their communities, weakening family and cultural ties, transmission of traditional knowledge and continuity of community leadership.

Although some communities, such as Arroyo Guazú, have basic educational spaces, access to quality intercultural and technical education remains restricted. Communities propose an integrated strategy for Indigenous youth rootedness through community technical-education programs, leadership training and active participation in territorial management.

Training spaces would integrate contemporary technical knowledge—such as agroecology, environmental management, computing and project administration—with traditional Ava Guarani knowledge, language, community values and respect for nature. A network of young community leaders is also proposed to exchange experiences, generate joint projects and strengthen intergenerational dialogue.

Priority actions include leadership, community-communication and project-management training focused on climate change, territorial governance and citizen participation; local educational programs linking formal education with produc-

tive work, environmental conservation and Indigenous worldview; support for sustainable youth enterprises in agroecological production, cultural tourism or environmental management; intergenerational meetings; and stronger participation by youth in the association’s decision-making bodies and climate-action planning.

The initiative seeks to reverse youth migration and transform education into a tool for rootedness, empowerment and leadership, enabling young people to become guardians of territory and ancestral knowledge.

The following table summarizes the new priorities defined by the association’s communities for the 2025–2030 period, highlighting the prioritized initiatives, their central challenges and the main proposed actions.

Table 31. Summary of new priorities of the Yvy Paraná Rembeyepe Association (2025–2030)

Proposed initiative	Challenge / description	Proposed actions
Sustainable access and food security in Itaipú protected areas	Ava Guarani communities live near Itaipú reserves but are not permitted to access them for traditional activities such as fishing, gathering, hunting or use of medicinal plants. This exclusion deepens food insecurity and breaks their spiritual connection with the territory.	Establish dialogue with Itaipú for regulated access to reserves; authorize artisanal fishing, gathering and sustainable use of non-timber forest products; include communities in ecological monitoring and environmental education; strengthen community co-responsibility for conservation and fire prevention.
Cultural and spiritual revitalization linked to the territory	Forest loss and forced displacement have caused profound cultural and spiritual erosion. New generations are becoming disconnected from ancestral knowledge and ritual practices linked to territory.	Hold gatherings with elders and spiritual leaders; reactivate traditional dances, songs and ceremonies; create houses of wisdom and community schools; promote cultural exchanges among Ava Guarani communities.
Ecological restoration with a multipurpose approach	Deforestation and soil degradation have reduced fertility, affected biodiversity and increased climate vulnerability.	Implement participatory ecological-restoration programs; reforest with native and fruit species; establish agroforestry systems and protect micro-watersheds; create community nurseries and promote sustainable beekeeping.

Proposed initiative	Challenge / description	Proposed actions
Community energy forests (access to firewood)	Deforestation has caused a critical shortage of firewood, affecting daily life, health and cultural practices associated with the community fire.	Reforest with fast-growing species for domestic use; create community energy forests; train in sustainable resource management and efficient fire use; promote improved and sustainable cookstoves.
Food security and sustainable livelihoods	Climate change, deforestation and contamination reduce agricultural production and food availability, creating external dependence.	Create household and community gardens with native seeds; improve irrigation and water-storage systems; promote community fish farming and beekeeping; agroecological training; actively involve women and youth in sustainable production.
Education, leadership and youth rootedness for community sustainability	Youth migration is increasing because of limited educational and employment opportunities, weakening the cultural fabric and continuity of leadership.	Create technical and intercultural training programs linked to territory; train young community leaders and strengthen their participation in territorial management; promote sustainable youth enterprises; organize intergenerational gatherings and reinforce cultural identity.

CHAPTER 7. Western Region or Chaco: Diagnosis, Loss and Damage, and Climate Change Actions

CHAPTER 7. Western Region or Chaco: Diagnosis, Loss and Damage, and Climate Change Actions

The Western Region of the country, also known as the Paraguayan Chaco, is characterized by a dry and semi-arid climate, with prolonged periods of extreme drought combined with high temperatures that can reach between 40 and 50°C, and marked rainfall seasonality that occasionally causes flooding. In this territory, Indigenous communities face strong pressures from deforestation, difficulties accessing water sources and increasingly severe impacts of climate change.

In this region, FAPI comprises six Indigenous associations representing Peoples and communities with histories of organization and territorial defense: Payipie Ichadie Totobiegosode Organization (OPIT), Organization of the Enlhet Norte People (OPEN), Regional Indigenous Federation of the Central Chaco (FRICC), Mismo Indígena Organization (OMI), Angaité Association for Community Development (ASADEC), and Federation of Indigenous Peoples and Organizations of the Paraguayan Chaco (FEPOI).

7.1. Payipie Ichadie Totobiegosode Organization (OPIT)

The Payipie Ichadie Totobiegosode Organization (OPIT) represents communities of the Ayoreo Totobiegosode People, settled mainly in Chaidí and Arocojnadi in the department of Alto Paraguay, within the Paraguayan Chaco. The organization was established as a body for collective representation and management to safeguard ancestral territory, community well-being and the cultural preservation of the Ayoreo People.

Its territory encompasses one of the last continuous expanses of pristine Chaco forest in Paraguay, with more than 100,000 hectares of primary forest under community management and surveillance. Ayoreo Totobiegosode families living in these territories maintain their ancestral relationship with nature, basing their livelihoods on gathering, family agriculture, wild beekeeping and handicraft production. For them, the forest is not only a material resource but also the spiritual and symbolic space where knowledge and connections with their ancestors reside.

Despite its strong commitment to conservation, the community faces growing pressure from deforestation and the expansion of private ranches surrounding its territory. Illegal logging, forest fires and changes in climate cycles have profoundly altered living conditions and ecological stability. Together with climate change, these transformations have affected water availability, family health and the capacity to produce food sustainably.

OPIT has been recognized in various national and international initiatives for its role in defending Ayoreo Totobiegosode natural and cultural heritage. The organization currently holds title to approximately 137,000 hectares, while another 70,000 hectares remain in the titling process, facing administrative delays and territorial disputes with private actors. This situation reflects the legal fragility of Indigenous territory and the urgent need for State support to consolidate land security.

OPIT remains a leading example of environmental and cultural resistance, pursuing its own conservation strategy grounded in traditional knowledge and community-based forest monitoring. Its members seek technical and financial support to strengthen territorial protection, access benefits under the national environmental-services regime, and explore sustainable alternatives such as carbon and forest-conservation projects.

The history of OPIT is also the history of a People defending its forest as a defense of life itself. In the face of external pressures and climate-change impacts, the organization reaffirms its commitment to cultural continuity, territorial autonomy and conservation of the Gran Chaco, one of the continent’s most valuable and threatened ecosystems.

7.1.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 32. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts and extreme heat waves combined with burning and forest fires	Recurrent droughts reduce water availability and affect the ponds that supply the community. Intense heat waves cause illness and dehydration and limit outdoor work. During these periods vegetation dries out, increasing fire risk. Added to the drought crisis are fires on neighboring ranches, which generate dense smoke that reaches the community, affecting health—respiratory problems and general weakness—and quality of life. Although these fires do not always originate within the territory, their impact on people and the ecosystem is direct.

Priority	Extreme climate event	Description
	Torrential rainfall and localized flooding	After droughts, prolonged rainfall damages roads, homes and agricultural plots. In 2024, rainfall continued for more than three months, leaving the community isolated and causing total losses of crops such as squash, sweet potato and watermelon.
	Intense winds and storms	In 2022, an unprecedented tornado-like event brought down trees and destroyed house roofs. These events are associated with increasing climate instability and loss of surrounding forest cover.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

7.1.2 Progress and Setbacks in Climate Action

During the Plan update process, important experiences were identified that represented progress, as well as limitations in addressing climate change:

Table 33. Progress and setbacks of OPIT

Area	Progress	Setbacks or limitations
Forest conservation and monitoring	Certification of 39,000 hectares under the National Environmental Services Regime (Law 3006/06). Community checkpoints and guard posts exist for forest surveillance.	The certificates have not been sold since their issuance in 2022, preventing receipt of economic benefits. Checkpoints are inactive due to lack of funds for maintenance, fuel and staff food.
Water management	Start of a project with FAPI to replace the wind-powered pumping system with solar panels and renew pipelines, ensuring greater efficiency and sustainability.	Ponds frequently dry up during droughts and pipelines suffer breakdowns. The community remains dependent on precarious systems while installation of the new system progresses.

Area	Progress	Setbacks or limitations
Territorial protection	More than 137,000 hectares titled and actively protected. The community maintains its commitment to protecting primary forest.	Another 70,000 hectares remain untitled, with administrative delays and conflicts with private companies. Lack of legal security limits access to conservation and financing programs.
Community health and well-being	Use of traditional knowledge to treat respiratory and digestive illnesses. Community cohesion during emergencies.	Lack of regular medical assistance, medicines and access to basic services, especially during rains that isolate the community. No support is received from the National Emergency Secretariat in critical situations.
Sustainable livelihoods	Experience in wild-honey production and traditional handicrafts, which form part of cultural identity.	There are no marketing channels, discouraging production. Technical support and access to local or digital markets are lacking.
Social participation and leadership	Leaders participate in national spaces, such as the FAO–INDI dialogue on Peoples in voluntary isolation and initial contact.	Limited youth participation due to lack of incentives and intergenerational dialogue. Leadership processes are concentrated among elders, which may affect the future sustainability of organizational work.

7.1.3 Loss and Damage

Esta sección presenta los eventos que han generado afectaciones en los medios de vida, los ecosistemas y los valores culturales. The assessment identified events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. The following table summarizes material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Table 34. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Prolonged droughts and heat waves	Losses: reduced agricultural production (watermelon, sweet potato and squash) and scarcity of water for consumption. Damage: dried ponds and failures in wind-powered pumping.	Losses: decline in natural water sources and vegetation loss. Damage: alteration of the microclimate and greater vulnerability to fires.	Losses: loss of a sense of environmental security and balance with nature. Damage: spiritual concern over water scarcity, as water is considered a source of life.
Heavy rainfall and prolonged storms	Losses: damage to homes and impassable roads that isolate the community for months. Damage: economic losses due to interruption of transport and trade.	Losses: soil erosion and waterlogging of agricultural plots. Damage: degradation of local ecosystems.	Losses: loss of meeting spaces and affected schools. Damage: feelings of isolation and social vulnerability.
Fires and burning	Losses: damage to crops, tools and community assets from smoke and fire. Damage: interruption of daily activities and health risks.	Losses: degradation of nearby forests and wildlife loss. Damage: air pollution and loss of territorial control.	Losses: loss of harmony with the natural environment. Damage: emotional suffering caused by destruction of the forest.
Strong winds (tornado-like event, 2022)	Losses: destruction of roofs, homes and fruit trees. Damage: reconstruction costs and crop losses.	Losses: severe damage to vegetation cover and fallen native trees. Damage: alteration of the landscape.	Losses: loss of symbolic and community spaces. Damage: collective fear of phenomena unprecedented in local memory.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Isolation due to extreme events	Losses: prolonged interruption of access to medical care, food and basic supplies. Damage: loss of mobility and connection with urban centers.	Losses: deterioration of rural roads and bridges. Damage: loss of protective vegetation.	Losses: interruption of intercommunity ties. Damage: weakening of the sense of community unity.
Deterioration of community health	Losses: increase in respiratory and diarrheal illnesses and reduced labor productivity. Damage: additional expenditure on medicines and medical care.	Losses: environmental contamination from smoke and dust. Damage: alteration of air and water.	Losses: loss of physical well-being as part of “teko porã.” Damage: collective suffering and spiritual discouragement.
Lack of markets for wild honey and handicrafts	Losses: reduced household income due to lack of sales. Damage: abandonment of sustainable productive activities.	Losses: decline in handicraft production linked to the forest. Damage: reduced incentives for conservation.	Losses: loss of traditional practices transmitted across generations. Damage: weakening of cultural identity.
Lack of resources for forest monitoring and protection	Losses: deterioration of checkpoints and surveillance equipment. Damage: reduced capacity to prevent deforestation.	Losses: potential loss of forest cover due to lack of control. Damage: advance of the agricultural frontier.	Losses: loss of the forest’s spiritual value as a sacred space. Damage: fear of encroachment on ancestral territories.

7.1.4 New Priorities Identified

During the participatory workshop with the Paypie Ichadie Totobiegosode Organization (OPIT), the following strategic climate-action priorities were defined to strengthen territorial protection, improve natural-resource management and generate sustainable livelihood alternatives for Ayoreo Totobiegosode families.

Integrated territorial and forest monitoring system

One of the main priorities identified by the Chaidi community of the Totobiegosode People is the implementation of an integrated forest monitoring and control system to prevent deforestation, detect forest fires early and ensure conservation of ancestral territory, which encompasses approximately 137,000 titled hectares and more than 100,000 hectares of pristine forest in its natural state.

The community currently has 39,000 hectares certified under the Environmental Services Regime (Law No. 3106/06), but reports that despite obtaining the certificate three years ago, it has been unable to sell it or receive economic benefits. This has limited surveillance, control and maintenance of forest checkpoints or guard posts, now unused for lack of resources. Pressure from private ranches and surrounding deforestation further increases forest vulnerability and fire risk.

The community proposes an integrated territorial-monitoring strategy combining technological tools, local capacities and institutional support. It includes drone technology to expand surveillance coverage, training and equipping community brigades for fire detection and response, and sustainable mobility such as motorcycles or ATVs together with fuel, food and patrol logistics.

Strategic checkpoints at different forest locations and internal communication systems would allow continuous monitoring of environmental threats, including illegal logging, fires, contamination and intruders. This would strengthen environmental governance from within Indigenous territory, consolidate community autonomy in forest management and protect one of the last blocks of primary forest in the Paraguayan Chaco.

From a climate perspective, the integrated territorial and forest monitoring system is a key adaptation and mitigation measure because it protects natural carbon sinks, reduces emissions from deforestation and fires, and strengthens resilience to increasingly frequent extreme events.

Community fund for forest conservation

A community forest-conservation fund was identified as a priority, conceived as a permanent financial mechanism to ensure sustainability of territorial protection, monitoring and management.

The community has approximately 39,000 hectares certified under the National Environmental Services Regime (Law No. 3106/06). However, despite meeting technical and legal requirements, certificates issued in 2022 have not been commercialized, preventing the community from receiving economic benefits for keeping forest areas intact. This lack of access to incentives creates environmental and financial inequity while private ranches continue to deforest.

The fund is proposed as an autonomous management tool to channel resources from national Payment for Environmental Services (PES) programs, carbon credits and international donations for protection of the Paraguayan Chaco. Resources would finance fuel, food, maintenance and equipment for forest-control brigades, operation of surveillance posts, replacement of supplies and new monitoring technologies such as drones or satellite communication systems.

This mechanism would directly contribute to climate adaptation and mitigation by strengthening local forest-management capacities, ensuring continuity of natural carbon sinks and promoting a community climate-finance model recognizing Indigenous Peoples as guardians of the territory. It would also strengthen economic and environmental resilience by ensuring stable resources for long-term conservation.

Expansion of the solar-powered water system

Water availability is one of the most critical factors, especially as prolonged droughts and heat waves intensify with climate change. Ponds and reservoirs supplying the population dry easily during periods of scarcity, while pipelines frequently break, interrupting supply and limiting safe access to water for consumption and household use.

The current system uses wind-powered pumps, but performance depends on wind speed, creating vulnerability during dry months. In partnership with FAPI, the community has already begun a project to replace these pumps with photovoltaic solar-energy systems, reducing dependence on fossil fuels and ensuring a more stable and sustainable supply.

The current project does not cover all homes and community spaces. The community therefore proposes expanding the water-supply system to strengthen territorial water resilience and guarantee the right to safe water.

The proposal includes comprehensive renewal of pipelines to prevent leaks and improve efficiency; additional solar panels and energy-storage systems for continuous operation, including on cloudy days; and training community technicians to maintain equipment, with emphasis on sustainable water and energy management.

The initiative will strengthen adaptation to climate-change impacts while also contributing to emissions mitigation through clean energy and reduced diesel or other polluting fuels. It will also improve community autonomy in water management, health, quality of life and household food security.

Titling and defense of the territory

Legal security of the territory is one of the most urgent challenges for the Ayoreo Totobiegosode community of Chaidi. Although approximately 137,000 hectares are currently titled, nearly 70,000 hectares remain pending final titling due to administrative obstacles, lack of resources and possible economic or political interests hindering the process.

Untitled lands remain exposed to encroachment by private ranches, deforestation and illegal occupation, affecting the ecological and cultural integrity of ancestral territory. The community has also noted the absence of sustained government support for legal and technical territorial defense despite the area's importance as one of the last continuous blocks of primary forest in the Paraguayan Chaco.

OPIT proposes strengthening and continuing legal, technical and cartographic management for final titling of all claimed lands, including updating cadastral records, consolidating boundaries and establishing interinstitutional coordination with INDERT, MADES and other competent entities.

This action seeks not only to defend ancestral territory and prevent conflicts with private actors but also to establish the legal basis for full participation in conservation programs, carbon certification, climate funds and Payment for Environmental Services schemes. From a climate perspective, Indigenous land titling is a structural adaptation and mitigation measure because it provides legal stability for forest management, reduces pressure on natural ecosystems and strengthens community environmental governance.

Promotion of sustainable livelihoods

Ayoreo Totobiegosode families in Chaidi preserve deep traditional knowledge of handicraft production and wild-honey harvesting, transmitted across generations as an essential part of cultural identity and their relationship with the forest. Lack of access to marketing channels, however, has led to progressive abandonment of these activities, affecting household income and continuity of cultural practices.

Although the community has natural resources and skills for handicraft and honey production, stable markets are lacking. Handicrafts made from forest materials and carrying deep symbolic meaning often remain unsold in homes, while wild honey cannot be marketed due to lack of equipment, containers and sales outlets.

The community proposes an integrated sustainable-livelihood program to revitalize handicrafts and beekeeping by improving product quality and presentation while preserving cultural authenticity; creating partnerships with fairs, fair-trade networks, solidarity shops and community-tourism programs; and training youth in microenterprise management, community marketing and sustainable natural-resource management.

These activities would diversify household income, reduce economic vulnerability to climate impacts such as prolonged drought affecting agriculture, and strengthen socio-environmental resilience. By linking art, honey and forest conservation, the initiative contributes to both adaptation and mitigation through a sustainable local economy based on respect for nature and the Ayoreo Totobiegosode worldview.

Intergenerational strengthening and youth leadership

Strengthening youth leadership is a cross-cutting priority for the Ayoreo Totobiegosode community of Chaidi and OPIT as a basis for organizational, cultural and territorial continuity. Leaders noted that although young people have interest and potential, participation in community spaces remains limited due both to respect for elders—which often places them in an observer role—and to lack of concrete training and intergenerational-dialogue opportunities.

The community proposes an integrated intergenerational-strengthening and climate-leadership program promoting active participation of youth and women in decision-making, environmental-project planning and natural-resource management.

The initiative includes permanent training spaces in community leadership, climate-change adaptation and mitigation, environmental communication and project management; intergenerational gatherings where youth and elders share traditional knowledge about forests, water and cultural practices; and participation of young people as environmental monitors or community technicians linked to forest-control brigades, natural-resource monitoring and sustainable productive projects.

Strengthening youth leadership ensures transmission of cultural knowledge and values while reinforcing climate resilience and environmental self-governance, guaranteeing participation of new generations in territorial defense and forest conservation. It also consolidates OPIT’s organizational role and long-term capacity for advocacy in local, national and international climate-change spaces.

The following table summarizes the new priorities defined by OPIT for the 2025–2030 period.

Table 35. Summary of OPIT’s new priorities (2025–2030)

Proposed initiative	Challenge / description	Proposed actions
Integrated territorial and forest monitoring system	The community faces progressive surrounding deforestation, recurrent fires and lack of resources to maintain forest checkpoints. Although it has 39,000 ha certified under Law 3106/06, certificates have not been commercialized and economic benefits have not been accessed, limiting forest surveillance and management.	Implement an integrated forest monitoring and control system; incorporate drone technology and communication systems; train and equip community brigades for fire detection and response; provide sustainable mobility (motorcycles or ATVs); reactivate checkpoints and control posts in strategic areas.
Community fund for forest conservation	Environmental-services certificates obtained in 2022 have not been commercialized, preventing financing of forest protection and creating inequity compared with private actors that continue deforestation.	Create a permanent community forest-conservation fund; channel resources from PES programs, carbon credits and international donations; finance fuel, food and brigade equipment; incorporate monitoring technologies such as drones and satellite communication.
Expansion of the solar-powered water system	Prolonged droughts and heat waves dry ponds and damage pipelines. The current system depends on wind pumps with low performance in the dry season.	Replace wind pumps with photovoltaic solar-energy systems; renew pipelines and expand the distribution network; install additional solar panels and energy-storage systems; train community technicians in maintenance and sustainable water management.
Titling and defense of the territory	There are 70,000 ha in the titling process and 137,000 ha already titled. Lack of progress creates territorial vulnerability and exposure to conflicts with private ranches.	Strengthen legal and technical management for final titling; update cadastral records and consolidate boundaries; coordinate with competent State institutions; secure the legal basis for access to PES, carbon credits and climate finance.

Proposed initiative	Challenge / description	Proposed actions
Promotion of sustainable livelihoods	Lack of market access has led to abandonment of traditional activities such as beekeeping and handicraft production, reducing income and affecting cultural transmission.	Revitalize wild-honey and handicraft production; improve product quality, presentation and added value; create partnerships with fairs, fair-trade networks and community-tourism programs; train youth in microenterprise management and community marketing.
Intergenerational strengthening and youth leadership	Young people participate little in community spaces because of respect for elders and lack of training opportunities. Intergenerational dialogue is needed to strengthen leadership and organizational continuity.	Create permanent training spaces in community leadership, climate change and environmental management; hold intergenerational gatherings for knowledge transmission; involve youth as environmental monitors or community technicians; promote participation of women and youth in OPIT.

7.2. Organization of the Enlhet Norte People (OPEN)

The Organization of the Enlhet Norte People (OPEN) is the representative body of the Enlhet Norte People in the Paraguayan Chaco region and includes Indigenous communities in Boquerón and Presidente Hayes.

OPEN is part of the Federation for the Self-Determination of Indigenous Peoples (FAPI), which brings together several Indigenous organizations in the country. Through its organizational structure and assembly bodies, OPEN promotes democratic participation by communities, defense of the collective rights of its People, and strengthening of cultural identity.

In the territorial and environmental sphere, OPEN plays a key role: it safeguards and administers its People's ancestral territory, linking the Indigenous vision of Good Living with current demands for climate-change adaptation, sustainable forest and water management, and Indigenous Peoples' sovereignty. By combining its vision with concrete action, the organization is an essential actor in implementation of this climate action plan.

Its mission can be expressed as follows: to safeguard the autonomy, rights and well-being of the Enlhet Norte People, preserving their territory, culture and traditional knowledge, and to promote resilience to environmental change. Its vision is of a strong, autonomous Enlhet Norte People, living in harmony with its ancestral territory and capable of responding to the challenges of the twenty-first century.

7.2.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 36. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts, aggravated by water and heat stress	This is the most recurrent and critical phenomenon for the community. Since 2015, long periods without rainfall have severely affected access to water for human consumption, agriculture and livestock. Rainwater harvesting is insufficient, tanks have limited capacity and the State aqueduct does not reach the villages. Prolonged droughts cause agricultural losses, indebtedness and a deepening food crisis. Temperatures above 45°C worsen water scarcity and cause heat stress in people and animals, reducing livestock performance and affecting human health, especially children, women and older people. Lack of shade and vegetation amplifies the effects of extreme heat.
	Torrential rainfall and localized flooding	After prolonged droughts, intense rainfall causes flash floods that destroy roads, homes and crops. This recurrent pattern of drought followed by flooding prevents agricultural planning and worsens soil erosion.
	Intense winds and storms	Storms with strong gusts have damaged lightweight homes, sheet-metal roofs and community structures. These events have increased household insecurity and reconstruction costs in a context of limited resources.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

7.2.2 Progress and Setbacks in Climate Action

During the Plan update process, important experiences were identified that represented achievements, as well as limitations:

Table 37. Progress and setbacks of the Organization of the Enlhet Norte People (OPEN)

Area	Progress	Setbacks or limitations
Production and environment	Implementation of beekeeping projects with 14 hives in operation and basic training in hive management. Certification of 400 hectares of forest under the Environmental Services regime, with support from the Paraguay + Verde program and MADES. Continuation of agricultural and livestock activities through the PIMA project, strengthening crop, poultry and small-ruminant production.	Limited technical assistance and equipment to expand beekeeping and agricultural production. Lack of processing and marketing infrastructure. Persistent threats of deforestation and vegetation-cover loss from external livestock activities.
Territorial management	Progress in land management and territorial governance through conservation of certified forests and participation in sustainable-management projects. Stronger coordination with national conservation programs and institutional partners such as FAPI and WWF.	Limited territorial-control capacity in the face of external pressures such as deforestation and irregular occupation. Limited access to geospatial information and continuous monitoring tools.
Infrastructure and housing	Construction and maintenance of ponds, wells and water tanks with support from A Todo Pulmón and international cooperation. Expansion of the community school for educational use and as a shelter during climate emergencies. Installation of public lighting and improvement of youth recreational spaces.	Shortage of adequate housing and lack of resilient materials for storms and flooding. Deficiencies persist in electricity coverage and sanitation infrastructure.
Animal production	Strengthening of community livestock production through FIDA loans involving 30 families organized into six groups. Experience raising poultry and small ruminants with support from MAG and previous projects.	Risk of indebtedness and lack of sustained technical advice to ensure profitability. Difficulties accessing local and regional markets.

Education and community strengthening	Training of young people in environmental monitoring with drones, supported by Naturaleza para la Vida. Training of women in baking and sewing, generating their own income. Organization of community cultural and sports activities.	Lack of continuity of technical and environmental education programs due to resource constraints. Youth migration in search of opportunities outside the territory.
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7.2.3 Loss and Damage

The assessment identified that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. The following table summarizes material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Table 38. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Prolonged droughts and torrential rainfall (2015–2025)	Losses: repeated annual losses of sesame crops (up to 600 ha), beans (300 ha), sweet potato, watermelon and squash; inability to plant in 2023–2025. Damage: total loss of agricultural income and increased household indebtedness.	Losses: soil degradation and alteration of the local water cycle. Damage: erosion, compaction and loss of fertility.	Losses: loss of traditional agricultural practices. Damage: loss of the cultural connection with productive territory and a sense of hopelessness.
Storms and intense winds (2022)	Losses: total or partial destruction of roofs on 29 homes. Damage: high reconstruction costs and loss of household belongings.	Losses: fallen protective trees and soil erosion from intense rainfall. Damage: loss of vegetation around homes.	Losses: loss of a sense of community security. Damage: collective fear of unpredictable climate events.
Exhaustion of the water-supply system (2024)	Losses: dry cisterns and collapse of the rainwater-harvesting system. Damage: dependence on private water trucks (Gs. 4,000/liter), creating unsustainable household expenses.	Losses: decline in groundwater and loss of water quality. Damage: risk of progressive desertification.	Losses: loss of water as a sacred element of life. Damage: feelings of abandonment and climate injustice.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Human-health impacts (2019–2023)	Losses: increase in respiratory and diarrheal diseases and dengue outbreaks; reduced labor productivity. Damage: increased expenditure on medical care and medicines.	Losses: environmental contamination from waste and stagnant water. Damage: vector proliferation and deteriorating sanitation.	Losses: loss of physical well-being as part of teko porã. Damage: suffering and collective stress due to lack of public medical care.
Loss of access to credit and debt crisis (2022–2025)	Losses: inability to repay agricultural loans and loss of access to new credit. Damage: abandonment of sesame cultivation and cash-crop production.	Losses: degradation of agricultural land left without productive use. Damage: abandonment of soil-management practices.	Losses: loss of community economic autonomy. Damage: frustration and weakening of collective organization.
Impact on handicraft production (women)	Losses: drastic reduction in harvesting and processing of caraguatá due to lack of water. Damage: loss of income in women-headed households.	Losses: reduced availability of natural fibers. Damage: loss of local plant biodiversity.	Losses: loss of ancestral knowledge transmitted among women. Damage: weakening of women's cultural and spiritual identity.
Recurring climate cycle: droughts and floods	Losses: periodic destruction of crops from excess or lack of water. Damage: disruption of the agricultural calendar.	Losses: alteration of the natural water balance and loss of fertile soils. Damage: cumulative environmental degradation.	Losses: loss of ancestral climate-prediction knowledge. Damage: perception of complete vulnerability to climate conditions.
Dependence on purchased water and unequal access	Losses: excessive expenditure on drinking water and inequality between families that can and cannot afford it. Damage: deprivation of basic needs.	Losses: depletion of natural sources through overexploitation. Damage: loss of ecosystem balance.	Losses: loss of social and community justice. Damage: feelings of exclusion and abandonment.

7.2.4 New Priorities Identified

EAs part of the process to update the Indigenous Climate Action Plan, the communities of the Organización de the Enlhet Norte People (OPEN), located in the Paraguayan Chaco, identified priorities aimed at strengthening resilience to climate-change impacts and improving quality of life in their territories. These initiatives reflect the need to consolidate food security, sustainable management of natural resources and participation of youth and women in productive and environmental processes.

Sustainable Production and Economic Diversification

Sustainable production and economic diversification are among OPEN's main priorities, seeking to strengthen food security, generate stable income and reduce economic vulnerability to prolonged droughts. The project combines beekeeping, community livestock production, agriculture and poultry production through an integrated climate-adaptation approach.

Beekeeping represents a strategic opportunity for productive diversification and forest conservation because it contributes to pollination and natural regeneration of local ecosystems. There are currently 14 hives in operation, with potential for expansion through technical training, organizational strengthening and development of marketing channels for honey and its derivatives.

At the same time, community livestock production has been promoted through loans from the Indigenous Foundation for Agricultural Development (FIDA), involving thirty families organized into six groups. The aim is to move toward a more sustainable model based on animal welfare, planned grazing and rational water use, reconciling livestock production with conservation of natural resources.

The community also proposes reactivating capacities established through the Agricultural Market Integration Project (PIMA), which left basic infrastructure, knowledge and equipment that can now be used to strengthen agricultural, poultry and small-ruminant production. The goal is an integrated and resilient agri-food system capable of sustaining community life even under adverse climate conditions.

Taken together, the project represents a strategy for productive adaptation and climate mitigation by reducing pressure on forests, diversifying livelihoods and contributing to territorial food security.

Forest Management and Conservation for Environmental Services

Forest conservation and stronger territorial governance are fundamental pillars of community development in Yalve Sanga. The community is advancing a process to certify approximately 400 hectares of forest under the Environmental Services

regime, in coordination with the Ministry of Environment and Sustainable Development (MADES) and the Paraguay + Verde program. The process seeks to recognize the environmental and economic value of conserved ecosystems and generate financial incentives for their protection and sustainable management.

The project also promotes technological tools such as drones and georeferencing systems for territorial monitoring, early fire detection and prevention of deforestation. Young people trained with support from Naturaleza para la Vida play a central role, strengthening community participation in environmental management.

Plans also include restoration of degraded areas and assisted natural regeneration with participation by women and youth, combining traditional knowledge with modern forest-management practices. Through this initiative, the community seeks both economic benefits and renewed commitment to protecting ancestral territory and mitigating climate change by conserving natural carbon sinks.

Water Security and Territorial Resilience

Water scarcity is one of the greatest challenges to life in the Chaco and to communities remaining in their territory. The water-security and territorial-resilience project aims to guarantee equitable and sustainable access to water for human consumption, household use and agricultural and livestock production.

In coordination with A Todo Pulmón and other partners, the community promotes construction of ponds, wells and high-capacity storage tanks, essential for confronting prolonged droughts and heat stress. These facilities will store rainwater and enable efficient use for both families and community production systems.

The project also includes training in community water management, system maintenance and responsible resource use, as well as restoration of recharge areas and protection of micro-watersheds. Yalve Sanga thus seeks to reduce climate vulnerability, protect public health, sustain local production and ensure continuity of its way of life amid increasingly frequent water crises in the Paraguayan Chaco.

Education, Youth and Gender Equity

Strengthening human and social capital is essential to confront climate challenges and ensure the community's future. Yalve Sanga therefore proposes consolidating an education, youth and gender-equity project that develops technical capacities, empowers women and promotes active participation by new generations in climate action.

The recently expanded community school plays a central role as an educational and cultural space and as a shelter during climate emergencies. The project proposes expanding its role through technical and environmental training for youth in areas such as sustainable production, local trades, natural-resource management and environmental-monitoring technologies.

Women continue to develop productive initiatives in baking and garment-making using sewing machines, supported by projects promoted by A Todo Pulmón and the departmental government. These activities strengthen women's economic independence, improve household food security and promote equity in community decision-making.

Education, youth leadership and women's participation therefore become pillars of climate resilience, contributing to a more equitable, cohesive and prepared community.

Community Infrastructure and Social Well-being

Development of community infrastructure is a priority for strengthening social resilience and improving quality of life. One community has used its own resources to expand the community store, ensuring supplies of food, medicines and basic goods without dependence on distant urban centers. This initiative reinforces local autonomy, improves food security and reduces exposure to external crises.

Installation of public lighting and creation of recreational and sports spaces also seek to improve safety, foster coexistence and strengthen the mental and emotional well-being of the population, especially young people. These actions help create safe, participatory and supportive environments where the community can develop fully.

This case shows how the Yalve Sanga community is moving toward a more balanced territorial-development model in which social infrastructure and collective well-being are recognized as essential components of climate adaptation and construction of Good Living in Indigenous territory.

The following table summarizes the new priorities defined by the Organization of the Enlhet Norte People (OPEN) for the 2025–2030 period.

Table 39. Summary of new priorities of the Organization of the Enlhet Norte People (OPEN) (2025–2030)

Proposed initiative	Challenge / description	Main actions
Sustainable Production and Economic Diversification	The community faces growing economic vulnerability due to drought and declining agricultural productivity. To reduce external dependence and strengthen food security, livelihood diversification is promoted through beekeeping, community livestock production and integrated agricultural-poultry production with a sustainability and climate-adaptation approach.	Technical and organizational training in beekeeping and sustainable livestock production; expansion of hives and stronger honey marketing; restructuring community livestock production under agrosilvopastoral practices; reactivation of capacities established through the PIMA Project for agricultural, poultry and small-ruminant production.
Forest Management and Conservation for Environmental Services	Deforestation and fires threaten territorial forests, reducing their capacity to provide water, shade and ecosystem services. The project seeks to consolidate certification of 400 ha under the Environmental Services Regime and strengthen forest governance through community participation.	Complete the forest-certification process; territorial monitoring with drones and georeferencing systems; train youth in forest control and fire detection; restore degraded areas and promote assisted natural regeneration with community participation.
Water Security and Territorial Resilience	Prolonged droughts, heat stress and lack of water infrastructure threaten health and local production. The project seeks to guarantee access to drinking water and water for productive use while promoting community management and efficient use.	Construct ponds, wells and high-capacity tanks; install rainwater-harvesting and storage systems; train in community management, maintenance and sustainable water use; restore recharge areas and protect micro-watersheds.
Education, Youth and Gender Equity	Youth migration, lack of technical training and limited participation by women restrict local opportunities. This project promotes technical education, gender equity and youth leadership as pillars of climate resilience.	Strengthen the community school as an educational space and climate shelter; technical and environmental training programs for youth; training in sustainable trades and environmental monitoring; support women's enterprises in baking and garment-making.

Proposed initiative	Challenge / description	Main actions
Community Infrastructure and Social Well-being	Lack of basic infrastructure limits well-being and social cohesion. The community requires spaces that strengthen local autonomy, safety and coexistence.	Expand the community store to supply food and medicines; install public lighting and construct recreational spaces; promote safe environments and sports activities for youth; strengthen social infrastructure as an adaptation and well-being measure.

7.3. Regional Indigenous Federation of the Central Chaco (FRICC)

The Regional Indigenous Federation of the Central Chaco (FRICC) is a representative organization of the Enxet, Enlhet, Nivaclé and Sanapaná Peoples, coordinating the efforts of eleven Indigenous communities of the Paraguayan Chaco in defense of their territories, culture and collective rights. Originally established as a board in 1975 and legally registered in 1999 as an autonomous federation domiciled in Yalve Sanga, Department of Boquerón, Chaco, Paraguay, FRICC is headquartered in Yalve Sanga and is part of the Federation for the Self-Determination of Indigenous Peoples (FAPI). It brings together eleven Indigenous communities of the Enxet, Enlhet Norte, Nivaclé and Sanapaná Peoples, with legally recognized communal lands.

Since its creation, FRICC has played a key role in promoting territorial rights, strengthening cultural identity and advocating for public policies aimed at recognition and protection of the Indigenous Peoples of the Chaco. Its work combines community management with institutional coordination and active participation in climate planning and action processes.

As part of the process to update the Indigenous Climate Action Plan (PIAC), FRICC identified the main extreme events affecting its territory—prolonged droughts, anomalous flooding, forest fires and intense winds—recognizing them as increasingly severe expressions of climate change. These conditions affect not only ecosystems but also food security, health, livelihoods and the social well-being of communities.

Despite these adversities, the Federation and its communities have made significant progress in housing infrastructure, water management, agroecological production, community health and territorial planning, laying the foundations for stronger climate resilience and a sustainable-development model consistent with their worldview and cultural values.

This section summarizes the progress achieved, Loss and Damage associated with climate change, and the new strategic priorities defined by FRICC for the coming years. It reflects both urgent needs and the collective aspirations of Central Chaco communities seeking to guarantee their autonomy, security and cultural continuity in the face of climate and environmental challenges.

7.3.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 40. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged extreme droughts, with increased associated forest fires	Periods without rainfall lasting up to eight consecutive months affect water availability for human consumption, livestock and agriculture. Prolonged droughts cause crop losses, livestock mortality, food crises and deteriorating health. During droughts, conditions also favor more intense, frequent and devastating forest fires, destroying natural habitats, beehives, crops and wildlife and generating persistent smoke that affects respiratory health, especially among children and older people.
	Intense rainfall with flooding and localized storms	Anomalous high-intensity rainfall causes extensive flooding, destroys homes and roads, and contaminates water sources. This altered rainfall pattern has disrupted known cycles, affecting predictability and community planning.
	Localized frosts in low-lying areas, hailstorms and extreme winds	Frosts accompanied by intense storms, gusts and hail damage homes, community structures and agricultural plots, increasing families' physical and emotional vulnerability.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

7.3.2 Progress and Setbacks in Climate Action

During the Plan update process, important experiences were identified that represented progress, as well as limitations in addressing climate change:

Table 41. Progress and setbacks of the Regional Indigenous Federation of the Central Chaco (FRICC)

Area	Progress	Setbacks or limitations
Production and environment	Strengthening of agricultural and livestock activities with support from MAG and international cooperation projects. Diversified production with subsistence crops and sustainable soil-management experiences. Progress in beekeeping and small-scale livestock production in some communities.	Prolonged droughts and soil degradation reduce agricultural productivity. Vegetation cover is lost through deforestation and overgrazing. Continuous technical assistance and resources to expand sustainable production are lacking.
Territorial management and conservation	Active participation in regional and environmental planning spaces. Inclusion of communities in the Central Chaco territorial-planning process. Promotion of conservation and sustainable use of native forests.	Lack of full legal security over community lands. Expansion of the agricultural frontier and pressure on forest areas. Limited territorial-monitoring capacity in the face of deforestation and fires.
Infrastructure and housing	Construction of housing with support from public programs and NGOs. Implementation of water systems and community tanks in some communities. Improvement of roads and access to basic services.	Precarious housing exposed to winds, storms and high temperatures. Deficiencies in sanitation and electricity infrastructure. Difficulties maintaining water systems because of insufficient resources and maintenance.

Area	Progress	Setbacks or limitations
Animal production and food security	Strengthening of small-scale livestock and poultry production. Promotion of household gardens and subsistence production. Access to basic agricultural inputs through temporary projects.	Water scarcity for livestock and crops during prolonged droughts. Limited access to local markets and lack of refrigeration infrastructure. Dependence on external projects without long-term sustainability.
Education, health and community strengthening	Inclusion of climate-change and environmental issues in community workshops. Coordination with local educational institutions for youth training. Promotion of participation spaces and organizational strengthening.	Lack of adequate school infrastructure and teaching resources. Insufficient and difficult-to-access health services. Youth migration due to lack of local opportunities.

7.3.3 Loss and Damage

The assessment identified events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation. Table presents material/economic, environmental, cultural and spiritual Loss and Damage recorded in recent years.

Table 42. . Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Prolonged extreme droughts	Losses: loss of agricultural crops and raised animals; scarcity of water for human and animal consumption. Damage: reduced household income and dependence on external assistance.	Losses: depletion of natural water sources. Damage: soil degradation and loss of natural vegetation.	Losses: loss of traditional knowledge for managing crops under dry conditions. Damage: feelings of helplessness and uprooting caused by loss of natural balance.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Anomalous flooding and intense rainfall	Losses: damage to homes and roads; crop losses from prolonged waterlogging. Damage: interruption of productive and educational activities.	Losses: water contamination and stagnation; soil erosion. Damage: alteration of local micro-watersheds.	Losses: loss of homes and community spaces. Damage: collective stress and anxiety due to loss of territorial stability.
Recurrent forest fires	Losses: burning of agricultural plots, crops and timber resources; loss of domestic animals. Damage: loss of materials and stored food.	Losses: destruction of forests and wildlife habitats. Damage: air pollution and loss of ecosystem services.	Losses: loss of the forest as a spiritual place and source of life. Damage: collective grief and weakening of the bond with nature.
Extreme winds and hailstorms	Losses: destruction of roofs, homes and community schools. Damage: high repair costs and loss of furniture.	Losses: fallen trees and destroyed crops. Damage: loss of shade and microhabitats.	Losses: interruption of community and religious activities. Damage: fear and insecurity in the face of unfamiliar natural events.
Climate variability and environmental degradation	Losses: changes in planting and harvesting patterns and loss of production predictability. Damage: lower performance of agroecological systems.	Losses: progressive soil degradation and disappearance of native species. Damage: biodiversity loss and ecological imbalance.	Losses: loss of ancestral knowledge about climate cycles. Damage: cultural and spiritual erosion.
Contamination and loss of water sources	Losses: natural sources dry up or become contaminated, affecting household supply. Damage: increased gastrointestinal illnesses.	Losses: deterioration of streams and community wells. Damage: reduced water quality and quantity.	Losses: loss of water as a sacred element. Damage: weakening of the spiritual bond with nature.
Migration and loss of young population	Losses: abandonment of agricultural and cultural activities due to lack of opportunities. Damage: reduced community labor force.	Losses: reduced environmental maintenance of agricultural plots and territories. Damage: loss of continuity in sustainable practices.	Losses: rupture of intergenerational knowledge transfer. Damage: weakening of cultural identity and collective memory.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Increase in illness and malnutrition	Losses: increased medical expenses and reduced work capacity. Damage: impacts on productivity and household well-being.	Losses: deterioration of hygienic conditions. Damage: proliferation of disease vectors.	Losses: loss of physical-spiritual balance. Damage: distress and a sense of institutional abandonment.
Erosion of biodiversity and essential resources	Losses: disappearance of edible, timber and medicinal species. Damage: loss of self-sufficiency.	Losses: reduction of native vegetation cover. Damage: loss of natural regeneration capacity.	Losses: loss of medicinal and ritual practices. Damage: weakening of the spiritual connection with the forest.

7.3.4 New Priorities Identified

As part of the process to update the Indigenous Climate Action Plan (PIAC), FRICC member communities identified priorities responding to the main environmental, productive and social challenges they face. These initiatives reflect the need to strengthen the resilience of Indigenous Peoples of the Chaco to extreme droughts, loss of natural resources, food insecurity and environmental degradation.

Integrated Water Management

Access to water is one of the greatest concerns of FRICC communities, as prolonged droughts, climate variability and contamination of surface sources have severely affected water availability and quality. In recent years, communities have faced periods of up to eight consecutive months without rainfall, reducing supplies for human consumption, livestock and agricultural production and generating food and health crises.

FRICC proposes Integrated Water Management that addresses the water cycle sustainably by combining infrastructure, community organization and traditional knowledge. The proposal includes drilling wells equipped with solar pumping; construction of reservoirs, cisterns and ponds for rainwater storage and productive use; installation of community water-treatment plants with local maintenance and technical training; creation of community water committees responsible for equitable distribution, use control and system maintenance; and recovery of traditional water-management knowledge, including spring protection and ancestral harvesting techniques.

The initiative seeks equitable and safe access to water, stronger water sovereignty and climate resilience, fewer conflicts over water use, improved health and support for food security. In the long term, integrated water management is conceived as a strategic climate-adaptation tool in a territory characterized by aridity, irregular rainfall and growing pressure on water ecosystems.

Climate-Resilient Agricultural and Livestock Production

Climate change has drastically altered traditional productive cycles in the Central Chaco, affecting planting, forage availability and agricultural and livestock productivity. Prolonged droughts, unpredictable frosts and irregular rainfall have reduced soil fertility and ecosystem-regeneration capacity, generating recurrent losses and growing dependence on external assistance.

FRICC proposes strengthening a resilient agricultural and livestock production model based on ecological sustainability, recovery of traditional knowledge and adaptive innovation. Actions include agroecological and soil-conservation practices such as terraces, organic fertilizers, crop rotation and permanent vegetative cover; recovery of degraded soils through native-species reforestation, living barriers and integrated organic-matter management; use of creole seeds resistant to water stress and community seed banks; efficient water use through drip irrigation, rainwater harvesting and reservoirs; sustainable small-scale livestock production with animal-welfare measures, planned grazing and supplementary feeding during droughts; promotion of beekeeping and household gardens; and community training in adaptation, climate-risk management and solidarity-based marketing.

This integrated approach seeks to restore balance between human activities and the natural environment, strengthen economic autonomy and climate resilience, and ensure communities can remain in their territories while maintaining traditional ways of life.

Infraestructura adaptada al clima

Las viviendas y espacios comunitarios de la mayoría de las comunidades de la Federación Regional Indígena del Chaco Central (FRICC) se encuentran en condiciones precarias, sin la protección necesaria frente a las altas temperaturas, los vientos intensos, las granizadas y las tormentas eléctricas cada vez más frecuentes en el Chaco. Estas condiciones generan vulnerabilidad estructural y sanitaria, afectando la salud, la seguridad y el bienestar general de las familias, especialmente de niños, personas mayores y mujeres.

En este contexto, la FRICC propone el desarrollo de una infraestructura adaptada al clima, orientada a mejorar la habitabilidad, la seguridad y la eficiencia energética de las construcciones, integrando tanto el conocimiento ancestral como los avances tecnológicos sostenibles.

Climate-Adapted Infrastructure

Most FRICC community homes and community spaces are precarious and lack adequate protection from high temperatures, intense winds, hailstorms and increasingly frequent electrical storms. These conditions create structural and health vulnerability, especially for children, older people and women.

FRICC proposes climate-adapted infrastructure to improve habitability, safety and energy efficiency while integrating ancestral knowledge and sustainable technologies. The initiative includes bioclimatic housing using local materials such as wood, adobe, palm, clay and thermal roofing, with cross-ventilation, thermal insulation and structural resistance; passive cooling, natural lighting and reflective roofs; adaptation of schools, health centers, churches and community halls as safe climate shelters; participatory construction and training for youth and families in sustainable building and preventive maintenance; inclusive accessibility for vulnerable families and people with limited mobility; and recovery of traditional building techniques adapted to new climate challenges.

Beyond protecting lives and property, the initiative seeks to reduce heat-wave impacts, improve rest and reduce respiratory and skin conditions associated with extreme climate. Climate-adapted infrastructure is thus conceived as a pillar of territorial resilience and the right to dignified, safe and culturally appropriate housing.

Sustainable Electricity

Access to electricity remains limited and unequal in several FRICC communities. Unstable supply and distance from conventional grids restrict productive, educational and health activities and the operation of water pumps, refrigerators for food and medicines, and community communication systems. This increases dependence on fossil fuels and limits community autonomy during energy and climate crises.

FRICC proposes a transition to clean and sustainable energy through community-managed photovoltaic solar systems adapted to Chaco conditions. Actions include community solar systems for schools, health posts, pumping systems and community centers; household solar solutions for lighting and small appliances; local technical training in maintenance, operation and management, prioritizing youth and women; community committees for administration and sustainability; energy-efficiency measures; and progressive reduction of fossil-fuel dependence.

The initiative will provide energy for essential services such as drinking water, refrigeration of food and medicines, education and communication, while supporting local production through workshops, irrigation systems and small agro-industries. Sustainable electricity therefore becomes a strategic axis for climate adaptation and mitigation, technological autonomy and community energy resilience.

Health Services and Social Protection

FRICC communities face a sustained increase in climate-related illnesses, including respiratory infections, diarrhea, skin conditions, malnutrition and vector-borne diseases. High temperatures, scarcity of safe water and lack of basic sanitation worsen health conditions, particularly for children, pregnant women and older people. Distance from urban centers and limited public-service response further increase health and social vulnerability.

FRICC proposes strengthening health and social-protection services through an intercultural, participatory and climate-adaptation approach. Actions include community health posts equipped with solar energy and safe water; first-aid and climate-emergency training for health promoters, youth and leaders; stronger traditional medicine through recognition of midwives, healers and local knowledge-holders and dialogue with the formal health system; intercultural mobile brigades for preventive care, vaccination, maternal and child health and hygiene; community mental-health support; coordinated management with public institutions and cooperation agencies for medicines, staff and prevention campaigns; and social-protection mechanisms including food assistance during droughts and support for vulnerable families.

The initiative seeks to reduce health risks while strengthening community resilience and the social fabric through comprehensive intercultural care that respects ancestral knowledge and combines it with modern medicine.

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Prevención y combate de incendios forestales

La Federación Regional Indígena del Chaco Central (FRICC) enfrenta una creciente amenaza por los incendios forestales, que en los últimos años se han vuelto más frecuentes, extensos y difíciles de controlar. Las altas temperaturas, las sequías prolongadas, el viento fuerte y la expansión de la frontera agropecuaria han creado condiciones propicias para que el fuego se propague rápidamente, afectando los bosques nativos, la fauna silvestre, los cultivos, las colmenas y las viviendas. Ade-

más de los daños materiales y ambientales, los incendios generan graves impactos en la salud —por la exposición al humo y la contaminación del aire— y provocan un profundo daño emocional y espiritual en las comunidades, al destruir espacios naturales considerados sagrados.

Ante esta situación, la FRICC prioriza la creación de un sistema comunitario de prevención y combate de incendios, que articule la acción local con el apoyo de instituciones técnicas y los gobiernos locales. Esta estrategia busca reducir los riesgos, mejorar la preparación y fortalecer la respuesta inmediata ante emergencias climáticas.

Recovery and Transmission of Ancestral Knowledge

FRICC communities have expressed deep concern about the progressive loss of traditional knowledge and cultural practices closely linked to territorial management, forest use, natural medicine, spirituality and community organization. Youth migration, changing lifestyles and pressure from the modern environment have weakened intergenerational transmission.

FRICC proposes a Program for the Recovery and Transmission of Ancestral Knowledge. Its actions include participatory documentation of knowledge about medicinal plants, agricultural techniques, natural-resource management, rituals, oral histories and artistic expressions; intercultural educational spaces where elders and local knowledge-holders transmit knowledge through workshops, stories, forest walks and practical experiences; strengthening women's role as holders of knowledge about food, health and environmental care; cultural gatherings, fairs and celebrations showcasing the Enxet, Enlhet Norte, Nivaclé and Sanapaná Peoples; integration of traditional knowledge into formal education; and bilingual educational and audiovisual materials in Guarani, Enxet, Enlhet, Nivaclé and Spanish.

The recovery and transmission of ancestral knowledge has cultural, environmental and spiritual value, strengthening respectful relationships with territory, sustainable practices and climate resilience from an Indigenous worldview.

Forest Fire Prevention and Control

FRICC faces a growing threat from forest fires, which have become more frequent, extensive and difficult to control. High temperatures, prolonged droughts, strong winds and expansion of the agricultural frontier create conditions for rapid fire spread, affecting native forests, wildlife, crops, beehives and homes. Fires also cause serious health impacts through smoke exposure and profound emotional and spiritual damage by destroying natural spaces considered sacred.

FRICC prioritizes a community system for forest-fire prevention and control, coordinated with technical institutions and local governments. Actions include forming and equipping Indigenous community brigades with basic tools; permanent technical training in fire management, prevention, first aid and safety protocols in coordination with SEN and INFONA; local contingency plans and evacuation routes incorporating traditional knowledge; territorial monitoring points using community observation and accessible technologies such as drones, radios or mobile applications; preventive practices including controlled burning during safe periods, firebreak maintenance and responsible agricultural-waste management; community and school awareness activities; and post-fire ecological restoration with native species and recovery of degraded soils.

These actions seek to reduce vulnerability and consolidate a prevention culture based on local knowledge and community organization, while protecting both natural resources and communities' spiritual connection with territory.

Territorial Protection and Biodiversity Conservation

FRICC communities face growing pressure on their territories from expansion of the agricultural frontier, deforestation, overgrazing and environmental degradation. These threats compromise native forests and essential resources—water, medicinal plants, wild foods and construction materials—while recurrent fires and lack of full legal security weaken climate-adaptation capacity and self-determination.

FRICC proposes an integrated strategy for territorial protection and biodiversity conservation aimed at ensuring community control of natural resources, ecological restoration and stronger environmental governance from an Indigenous worldview. Actions include strengthening legal security through collective regularization and titling and updated georeferenced boundaries; community monitoring and surveillance against deforestation, poaching and illegal or extractive activities; restoration of degraded areas and biological corridors with native species of ecological, food and cultural value; sustainable management practices such as agroforestry, forest beekeeping and rational grazing; environmental education and community participation; partnerships with scientific institutions, local governments and regional networks; and protection of sites of spiritual and cultural importance.

Through this initiative, FRICC reaffirms that territorial defense and biodiversity protection are fundamental pillars of climate resilience, community sovereignty and continuity of life in the Central Chaco.

The following table summarizes the new priorities defined by FRICC communities for the 2025–2030 period, highlighting prioritized initiatives, their central challenges and the main planned actions.

Cuadro 43. Summary of new priorities of the Regional Indigenous Federation of the Central Chaco (FRICC) (2025–2030)

Proposed initiative	Challenge / description	Actions
Integrated Water Management	Prolonged droughts, climate variability and contamination of surface sources have reduced water availability and quality for human consumption, livestock and agriculture.	Drill wells with solar pumping and construct reservoirs; install cisterns and community water-treatment plants; create water committees and provide maintenance training; recover traditional rainwater-harvesting and water-management practices.
Climate-Resilient Agricultural and Livestock Production	Changes in rainfall and temperature cycles have reduced agricultural and livestock yields, affecting food security and household income.	Implement agroecological and soil-conservation techniques; restore degraded soils and promote resistant seeds; develop household gardens, beekeeping and sustainable livestock production; technical training in adaptation and local marketing.
Climate-Adapted Infrastructure	Homes and community spaces are precarious and vulnerable to storms, winds and extreme heat.	Construct bioclimatic housing with local materials; improve community spaces as climate shelters; train in sustainable construction techniques; promote energy efficiency and natural ventilation.
Sustainable Electricity	Access to electricity is limited, affecting water supply, health, education and production.	Install community and household solar systems; provide local technical training in maintenance and efficient use; create community energy committees; progressively reduce fossil-fuel use.
Health Services and Social Protection	Extreme climate conditions and lack of sanitation increase respiratory, gastrointestinal and vector-borne diseases.	Install and equip health posts; train in first aid and emergencies; integrate traditional and intercultural medicine; implement mobile brigades and food-support programs.

Proposed initiative	Challenge / description	Actions
Recovery and Transmission of Ancestral Knowledge	Traditional knowledge about forest management, natural medicine and cultural practices is progressively being lost.	Participatory documentation of knowledge and practices; workshops, cultural gatherings and bilingual materials; integrate knowledge into formal education; promote women's and youth leadership.
Forest Fire Prevention and Control	Forest fires are increasingly intense and frequent, affecting forests, wildlife and community health.	Form and equip community brigades; technical training in fire management and contingency planning; territorial monitoring and preventive education; post-fire ecological restoration with native species.
Territorial Protection and Biodiversity Conservation	Agricultural expansion and deforestation threaten Central Chaco territories and ecosystems.	Title and georeference community lands; participatory territorial monitoring and surveillance; restore degraded areas and biological corridors; promote sustainable production and conservation practices.

7.4. Mismo Indígena Organization (OMI)

The Mismo Indígena Organization (OMI) represents the villages that make up the El Estribo Community of the Enxet Sur People, located in the department of Presidente Hayes in the Paraguayan Chaco. They face serious impacts from climate change and expansion of the agricultural frontier, threatening both their territory and their traditional way of life.

OMI seeks to strengthen collective rights, community autonomy and sustainable territorial management, promoting active participation by its communities in decision-making concerning natural resources and adaptation to the Chaco's extreme environmental conditions.

Through coordination with FAPI and other bodies, the organization promotes training, advocacy and organizational strengthening, particularly on climate change, Indigenous rights, food security and water management.

The El Estribo Community, to which OMI belongs, comprises at least 11 communities with an approximate population of 3,000 people, whose economy and culture depend closely on sustainable use of the forest, wildlife and water resources. Progressive loss of these natural assets, together with extreme climate events—prolonged droughts, forest fires, salinization of aquifers and environmental degradation—has increased vulnerability and reinforced the urgency of culturally appropriate adaptation measures.

7.4.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 44. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts, with intensified heat waves and forest fires	Communities report droughts lasting up to eight months and daytime temperatures above 50°C, with nighttime minimums of 35–40°C. These conditions affect health, reduce daily productivity and hinder basic activities. Lack of rainfall causes water scarcity, crop losses and animal mortality, deepening food vulnerability. Livestock practices involving grassland burning also cause frequent fires. Smoke affects respiratory health, destroys local flora and fauna and aggravates biodiversity loss. Fires also degrade soils and hinder natural regeneration of the Chaco forest.
	Torrential rainfall, localized flooding, strong winds and electrical storms	Although sporadic, heavy rainfall causes waterlogging and flooding in low-lying areas. These events damage homes, roads and productive areas, interrupting mobility and access to basic services.
	Localized frosts in low-lying areas	Although less frequent, frosts affect crops in low-lying areas, causing losses in horticultural and fruit species. In some cases they also damage young seedlings used in reforestation projects.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

7.4.2 Progress and Setbacks in Climate Action

Table 45. AProgress and setbacks of OMI

Area	Progress	Setbacks or limitations
Production and environment	Implementation of household and community gardens in some communities, promoting dietary diversification. Progress in pilot reforestation and sustainable soil-management experiences using native species. Participation in training workshops on climate-change adaptation and agroecological practices.	Loss of crops and animals due to prolonged droughts and high temperatures. Lack of resistant seeds and agricultural tools. Limited technical assistance and continuous support for sustainable production.
Territorial management and conservation	Promotion of forest conservation and recovery of degraded areas. Participation in coordination spaces with FAPI and local authorities for territorial recognition. Inclusion of youth in environmental-monitoring processes.	Pressure from livestock activities and deforestation near communities. Lack of legal security over traditional lands. Limited community capacity for territorial control and surveillance.
Infrastructure and housing	Construction of housing with support from MUVH and cooperation projects, improving families' basic conditions. Installation of some water tanks and community reservoirs.	Housing is inadequate for high temperatures and storms. Lack of maintenance of water infrastructure. Absence of climate-adapted community spaces.
Animal production and food security	Raising small livestock (poultry and pigs) for household consumption. Participation in small-scale agricultural and livestock projects promoted by external cooperation.	High animal mortality during prolonged droughts. Lack of fodder and water for livestock. Limited infrastructure for product management and marketing.
Education, health and community strengthening	Workshops on leadership, climate change and organizational strengthening with FAPI support. Integration of women and youth into community activities and training. Revaluation of traditional knowledge through cultural activities.	Limited access to secondary and technical education. Insufficient health services without an intercultural approach. Youth migration due to lack of local opportunities.

7.4.3 Loss and Damage

The assessment identified events that have affected livelihoods, ecosystems and the cultural values of communities, demonstrating their growing vulnerability to extreme climate phenomena and environmental degradation.

Table 46. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Prolonged droughts and heat waves (up to 50°C)	Losses: death of domestic animals, loss of crops and staple foods; seeds germinate but fail to develop. Damage: total loss of agricultural and livestock income and dependence on external assistance.	Losses: drastic reduction of natural water sources. Damage: soil degradation, desertification and vegetation loss.	Losses: weakening of self-sufficiency and balance with nature. Damage: spiritual suffering due to water scarcity, as water is considered a source of life.
Anthropogenic forest fires	Losses: burning of forest areas, crops, homes and forest resources. Damage: destruction of construction materials and loss of livelihoods.	Losses: loss of fauna, flora and ecosystem services. Damage: air pollution and deterioration of soil quality.	Losses: loss of the forest as a spiritual space. Damage: collective grief over destruction of sacred territory.
Salinization and environmental degradation	Losses: wells rendered unusable by excess salts; loss of access to drinking water. Damage: direct impacts on agricultural and livestock production.	Losses: aquifer salinization and degradation of local ecosystems. Damage: biodiversity loss and disappearance of native species.	Losses: loss of fresh water, a symbol of purity and life. Damage: weakening of the spiritual relationship with land and resources.
Water contamination and deteriorating sanitation	Losses: outbreaks of diarrhea, respiratory infections and diseases arising from contaminated water consumption. Damage: reduced workforce and increased health expenditure.	Losses: contamination from dead animals and organic matter. Damage: loss of surface-water quality.	Losses: loss of physical and spiritual well-being. Damage: feelings of abandonment and hopelessness due to lack of medical care.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Isolation due to destruction of roads and infrastructure	Losses: interruption of access to health, education and commerce; prolonged isolation during rainfall and flooding. Damage: inability to transport products and access markets.	Losses: soil erosion and road degradation. Damage: deterioration of territorial connectivity.	Losses: loss of intercommunity contact. Damage: weakening of community solidarity and increased emotional isolation.
Cultural erosion and youth migration	Losses: loss of intergenerational knowledge transfer. Damage: reduced leadership and community practices.	Losses: abandonment of traditional territorial management. Damage: loss of natural elements used in rituals.	Losses: weakening of cultural identity. Damage: spiritual uprooting and loss of a sense of belonging.
Deterioration of women's reproductive health	Losses: increased health complications and fewer natural births. Damage: economic and physical vulnerability.	Losses: environmental contamination affecting women's health. Damage: loss of balance in natural cycles.	Losses: loss of women's well-being as pillars of the community. Damage: impacts on feminine life energy in the Enxet world-view.
Loss of biodiversity and ecosystem services	Losses: disappearance of wildlife and medicinal and timber species. Damage: loss of food and productive resources.	Losses: degradation of native forest. Damage: habitat loss and ecological imbalance.	Losses: loss of the spiritual bond with forest beings. Damage: deterioration of values of respect and reciprocity with nature.
Collective emotional and spiritual erosion	Losses: physical and emotional exhaustion among women and leaders. Damage: widespread community discouragement.	Losses: alteration of the natural environment that sustained spiritual life. Damage: loss of environmental balance perceived as ancestral protection.	Losses: loss of hope and belonging. Damage: rupture of the emotional and spiritual fabric of the Enxet People.

7.4.4 New Priorities Identified

As part of the process to update the Indigenous Climate Action Plan (PIAC), the communities belonging to OMI, of the Enxet People of the Central Chaco, identified the main action priorities for strengthening resilience to climate change. These proposals emerged from a participatory process analyzing environmental, social and cultural impacts marked by prolonged droughts, extreme heat waves, forest fires and environmental degradation.

Integrated Water Management

Access to water is the most urgent and structural problem for people organized around OMI. Prolonged droughts of up to eight consecutive months and extreme temperatures above 50°C have created critical water scarcity directly affecting health, agricultural and livestock production and food security.

Most existing wells have high salinity levels due to intensive use and lack of natural aquifer recharge, making the water unsuitable for human and animal consumption. Many supply systems implemented by previous programs, including SENASA and cooperation projects, proved unsustainable because of technical shortcomings, lack of maintenance or insufficient local training. Communities also lack adequate infrastructure for rainwater harvesting and storage and therefore depend on sporadic water-truck deliveries.

OMI proposes an Integrated Water Management Program including community reservoirs, household cisterns and elevated tanks; roof-channel rainwater-harvesting systems; rehabilitation, cleaning, sealing and progressive desalination of existing wells using appropriate technologies; solar pumps; community distribution networks prioritizing homes, health centers and common spaces; local water committees; practical training in maintenance, basic repair and sustainable water management; integration of traditional water knowledge and conservation practices; participatory monitoring of water sources, rainfall and evaporation; and linkage with FAPI's climate early-warning system.

The project seeks to guarantee community water sovereignty, reduce external dependence and improve health, production and general well-being. By integrating technical measures with Enxet traditional knowledge, water management is understood not only as climate adaptation but also as a cultural and spiritual action reaffirming the sacred relationship with water as a source of life and balance.

Climate-Adapted Housing and Community Infrastructure

Housing built in previous years, mainly through MUVH programs and cooperation projects, is poorly adapted to the Chaco's extreme climate. Metal roofing and unsuitable materials greatly increase indoor heat, producing temperatures above 45°C and affecting health, rest and daily productivity. Lack of natural ventilation, thermal insulation and shade makes many homes uninhabitable for much of the day. Most communities also lack appropriate halls, meeting centers or storage facilities for collective activities, protection from heat, or safe storage of food and water.

OMI proposes a Climate-Adapted Housing and Community Infrastructure Program. Its components include participatory design of bioclimatic housing combining Enxet Sur vernacular construction with modern sustainable-architecture criteria; use of local materials such as wood, clay, palm and straw; high roofs, broad eaves and strategic orientation for cross-ventilation; pilot climate-adapted homes prioritizing the most vulnerable families; progressive replacement of metal roofs with insulating or combined materials; integrated rainwater harvesting; construction or refurbishment of multifunctional community spaces resistant to heat, strong winds and flooding; climate shelters and emergency-coordination centers; solar energy for lighting, ventilation, refrigeration and water pumping; local workforce training in bioclimatic construction and maintenance; active participation by women in habitat design; and incorporation of Enxet Sur cultural values into household layout and use of space.

Climate-Resilient Agricultural and Livestock Production

Enxet Sur communities have lost much of their crops and raised animals due to prolonged droughts, extreme heat waves and lack of water. Food production has declined, household nutrition has been affected and dependence on external assistance has increased. Soils are degraded by vegetation loss, while water scarcity and well salinization prevent maintenance of traditional cultivation and grazing systems.

Lack of resistant seeds, suitable tools and continuous technical assistance constrains recovery. OMI proposes strengthening agricultural and livestock production through climate-adapted practices integrating agroecological techniques and traditional knowledge. Actions include household and community gardens with drought- and high-radiation-resistant species; agroforestry systems combining native trees such as algarrobo, samu'u and guayacán with crops; raising heat-adapted small livestock such as poultry, pigs and goats; technical training in sustainable agriculture, seed conservation and water management; tools and basic inputs; community nurseries and small fodder reserves; and community fairs and local marketing circuits prioritizing agroecological production and exchange among communities.

The initiative seeks to rebuild Enxet Sur food sovereignty through sustainable and resilient production systems capable of ensuring healthy food, strengthening the local economy and reducing dependence on external assistance in harmony with nature and the Indigenous worldview.

Sustainable Electricity

Access to electricity in Enxet Sur communities is limited and unstable, directly affecting water pumps, refrigeration, lighting and basic services. Many families depend on costly fuel generators or have no electricity, restricting household, educational and productive activities. During prolonged droughts, lack of energy prevents water pumping and further deepens health and food vulnerability.

OMI proposes community solar systems as the principal energy source. Actions include photovoltaic systems in homes, schools, community centers and health posts; solar pumps for drinking water and irrigation; community microgrids managed equitably by communities; local technical training in operation and maintenance; and progressive replacement of fossil fuels.

Renewable energy will improve quality of life, reduce external dependence and strengthen community autonomy while ensuring essential services during emergencies and contributing to environmental and social resilience.

Comprehensive Public Health

Environmental and climate deterioration in Enxet Sur territories has increased respiratory illnesses, intestinal infections, dehydration and severe heat stress. Constant exposure to temperatures above 45°C, contaminated water and lack of basic services have seriously weakened community health and well-being. Women have particularly reported reproductive-health problems associated with water contamination, poor nutrition and physical exhaustion from extreme temperatures. Lack of equipped health centers, essential medicines and permanent medical personnel forces long-distance travel for care.

OMI proposes strengthening primary health care through an intercultural and community approach combining traditional and biomedical knowledge. Actions include strengthening community health posts with medicines, basic supplies, emergency equipment and solar energy for vaccines and medicines; training Indigenous health promoters in first aid, disease prevention, environmental sanitation and heat-wave care; specific attention to women's health; recognition of midwives, healers and local knowledge-holders; community mental-health and emotional-support spaces integrating Enxet Sur cultural and spiritual practices; and health-education campaigns on safe water use, waste management and prevention of contamination- and heat-related diseases.

This comprehensive approach seeks to improve prevention and climate-emergency response, reduce avoidable mortality and guarantee dignified care adapted to the sociocultural context of the Chaco.

Recovery and Transmission of Ancestral Knowledge

Youth migration, environmental deterioration and progressive forest loss have accelerated cultural erosion in Enxet Sur communities. Traditional knowledge related to forest use, water management, medicinal plants, hunting, fishing and traditional agriculture is increasingly at risk, together with the places where such knowledge was practiced.

OMI considers recovery, documentation and transmission of ancestral knowledge essential to identity and climate adaptation. Actions include audiovisual documentation of traditional medicine, forest use, agricultural practices and spiritual rituals; schools or houses of ancestral knowledge where elders teach new generations through workshops, gatherings and oral narratives; incorporation of traditional knowledge into local education; intergenerational dialogue among knowledge-holders, youth and women; recovery of sustainable traditional practices involving medicinal plants, climate-adapted cultivation and spiritual management of water and forest; and cultural dissemination through educational materials, fairs, exhibitions and revitalization events.

The initiative will reaffirm cultural identity, strengthen community climate resilience and recover the spiritual relationship with nature at the heart of the Enxet Sur worldview.

Forest Fire Prevention and Control

Anthropogenic forest fires, mainly associated with extensive livestock production, grassland burning and inappropriate land-clearing practices, are among the most serious threats to Enxet Sur communities. In recent years fire has caused irreversible biodiversity losses, destruction of forest areas, wildlife mortality and air pollution. Prolonged droughts, high temperatures and strong winds accelerate fire spread, while lack of equipment, organization and community training limits emergency response.

OMI proposes a culturally appropriate community Forest Fire Prevention and Control Program. Actions include creation and equipment of Indigenous community brigades; technical training in prevention, early detection and fire control incorporating Indigenous cultural fire management; a community early-warning system linked to regional climate and satellite monitoring; educational campaigns on uncontrolled-fire risks and forest protection; coordination with firefighters, local governments and environmental institutions for preventive planning, equipment and rapid-response routes; and participatory reforestation of fire-degraded areas using native species and restoring biological corridors.

By integrating technical knowledge and traditional practices, fire prevention becomes a climate-adaptation and territorial-conservation strategy that protects biodiversity, life, health and cultural heritage.

Territorial Protection and Biodiversity

Accelerated deforestation, expansion of the agricultural frontier and indiscriminate land use are causing critical loss of forest cover and ecosystem services in Enxet Sur territory. Private livestock and agricultural activities surrounding settlements have fragmented forests, affected biological corridors and increased fire and desertification risks.

OMI's El Estribo villages propose strengthening territorial governance and active biodiversity conservation through participatory management combining traditional knowledge, community planning and institutional coordination. Actions include participatory territorial maps, zoning of use and conservation areas and internal agreements on forest and natural-resource management; restoration of degraded areas through native-species reforestation, natural-regeneration management and small community biodiversity reserves; community territorial monitoring and control using forest-control posts, drones and GPS and training youth as environmental guardians; coordination with INFONA, SEN, local governments and FAPI; sustainable production of honey, handicrafts, forest fruits and medicinal plants; and environmental and cultural education emphasizing the forest as a space of life and spirituality.

The project seeks to conserve the natural and cultural heritage of the Enxet Sur People, strengthen autonomy in territorial management and promote harmonious coexistence among production, biodiversity and culture.

The following table summarizes the new priorities defined by OMI communities for the 2025–2030 period.

Table 47. Summary of OMI's new priorities (2025–2030)

Proposed initiative	Challenge / description	Actions
Integrated Water Management	People organized in OMI face droughts of up to eight months and temperatures above 50°C. Drinking-water scarcity and well salinization affect health, production and food security. Existing systems are insufficient and lack maintenance.	Construct reservoirs, cisterns and community tanks; rehabilitate and improve wells with solar pumps; create community water-distribution networks; establish local committees and provide training in maintenance and water management.
Climate-Adapted Housing and Community Infrastructure	Homes built with metal materials increase indoor heat and are unsuitable for extreme Chaco conditions. Community infrastructure that can serve as shelter and meeting space is lacking.	Design and construct bioclimatic housing with local materials; replace metal roofs with insulating materials; create adapted community centers with solar energy; train local labor and involve women in habitat design.
Climate-Resilient Agricultural and Livestock Production	Drought, extreme heat and lack of water have caused crop and animal losses. Scarcity of resistant seeds and technical assistance limits food security.	Implement household gardens and agroforestry systems; raise small animals adapted to heat; training in agroecological practices and water management; provide tools, seeds and community nurseries; promote fairs and local marketing circuits.
Sustainable Electricity	Limited energy access affects water pumping, food preservation and health care. Dependence on fossil fuels increases costs and limits well-being.	Install community solar systems in homes, schools and health posts; equip solar pumps for drinking water; technical training in operation and maintenance; create local energy microgrids.
Comprehensive Public Health	Respiratory, intestinal and reproductive-health conditions are increasing due to extreme heat and water contamination. Permanent medical care and medicines are lacking.	Strengthen health posts with supplies and solar energy; train Indigenous health promoters; provide care for women and children; integrate traditional medicine and modern care; health-education and mental-health campaigns.

Proposed initiative	Challenge / description	Actions
Recovery and Transmission of Ancestral Knowledge	Migration and forest loss have reduced traditional knowledge of agriculture, natural medicine and territorial management.	Create schools or houses of knowledge; audiovisual recording and documentation of traditional practices; intergenerational spaces among knowledge-holders, youth and women; integrate traditional knowledge into local education.
Forest Fire Prevention and Control	Fires caused by livestock practices destroy forests, wildlife and homes and contaminate the air. Lack of equipment and organization increases risk.	Create equipped community brigades; training in cultural fire management; implement early-warning systems; coordinate with firefighters and local authorities; reforest degraded areas.
Territorial Protection and Biodiversity	Deforestation and indiscriminate land use reduce forest cover and ecosystem services. Community control and legal recognition of territory are insufficient.	Participatory mapping and territorial-use zoning; restore degraded areas and create community reserves; territorial monitoring with youth and environmental guardians; promote sustainable natural-resource use; institutional coordination to strengthen Indigenous governance.

7.5. Angaité Association for Community Development (ASADEC)

The Angaité People’s Association for Community Development (ASADEC) is a representative Indigenous organization comprising 18 villages in the territory known as La Patria, located in the department of Presidente Hayes in the Paraguayan Chaco. It is part of the Federation for the Self-Determination of Indigenous Peoples (FAPI), which brings together the country’s main Indigenous organizations, and serves as a body for coordination, management and defense of the collective rights of the Angaité People.

ASADEC administers an ancestral territory of approximately 22,500 hectares, of which around 15,000 hectares are native forests in a good state of conservation. These ecosystems are fundamental to environmental balance and to the cultural, spiritual and economic life of the communities, which have historically maintained a harmonious relationship with nature and a strong identity linked to the land.

The association’s mission is to strengthen community autonomy and governance, promote sustainable development with cultural identity, and ensure the protection and responsible management of natural resources. Through its organizational structure, ASADEC promotes participatory planning, sustainable production and defense of the Angaité People’s territorial and cultural rights against external pressures that threaten their way of life.

ASADEC communities base their livelihoods on agriculture, community livestock production, beekeeping, artisanal fishing and handicrafts made from natural fibers such as karanda'y and ysypo. These activities sustain the local economy while preserving ancestral knowledge, traditional practices and spiritual ties to the territory.

The organization plays a fundamental role in coordination between communities and public institutions and partners, promoting actions to improve access to water, health, education, roads and sustainable production. Its work seeks to strengthen community resilience to climate change, conserve Chaco forests and guarantee the full exercise of the Angaité People's collective rights.

7.5.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 48. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts	Droughts are increasingly severe and long-lasting; the most recent lasted approximately 18 consecutive months, causing total loss of traditional crops (maize, beans, squash, watermelon and sweet potato) and deaths of animals (goats, cattle, chickens and pigs) from lack of water and food. Ponds dry up completely and families must ration water and queue to collect it. Lack of rainfall also causes loss of natural pasture, affecting community livestock production and beekeeping.
	Intense rainfall with flooding and storms	After droughts, rainfall arrives suddenly and torrentially, causing flooding, soil erosion and destruction of roads and access routes. In 2024, intense rainfall severely damaged community roads, isolating several villages and preventing delivery of medicines, food and assistance. Lack of drainage and channeling worsens the problem.

	Heat waves	High and persistent temperatures increase evaporation from ponds, reduce water availability and cause high mortality among small animals such as goats, pigs and poultry. They also hinder crop germination, increase food scarcity and affect human health, especially children and older people, intensifying food and economic vulnerability.
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* Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

7.5.2 Progress and Setbacks in Climate Action

Table 49. Progress and setbacks of the Angaité Association for Community Development (ASADEC)

Area	Progress	Setbacks or limitations
Territorial management and forest conservation	ASADEC protects approximately 22,500 hectares, including about 15,000 hectares of primary forest. The community remains committed to conservation, sustainable use and transmission of traditional knowledge about the forest.	There are no resources for forest monitoring or control; communities lack equipment and transportation. External threats from land clearing, pollution and livestock pressure at territorial boundaries are increasing.
Agricultural and livestock production	Traditional agriculture (sweet potato, beans, maize, watermelon and squash) and community livestock production continue. Local experiences support household consumption and family nutrition.	Prolonged droughts and contamination of water sources have destroyed crops and caused animal deaths. Families increasingly depend on industrialized foods, losing their natural and healthy diet.
Adaptation alternatives	Community initiatives in small-livestock production and beekeeping are emerging as adaptation and resilience strategies in response to water scarcity. Some families maintain hives established with previous support from INDI and the departmental government.	Technical assistance, equipment and investment are lacking. Water-pumping systems use fossil fuels, increasing costs and limiting sustainability.

Area	Progress	Setbacks or limitations
Infrastructure and roads	An internal road network connects the villages, and a community radio station plays a key role in communication and cultural dissemination.	Intense rainfall and flooding damage roads and isolate communities, preventing access to health centers, schools and food supplies. Road infrastructure requires improvements and adequate drainage.
Culture and participation	Women keep traditional practices alive through artisanal fishing with baskets and handicrafts made from karanday and ysypos, transmitting knowledge and strengthening cultural identity.	Raw materials are increasingly scarce due to forest loss, and stable marketing channels do not exist. Artisans lack means to transport or sell their products outside the territory.
Youth and education	Young people show interest in revaluing ancestral culture and spirituality, using community radio as a space for learning and dissemination.	A growing disconnection of youth from spirituality and traditional knowledge is observed. Educational opportunities, training and institutional support are lacking.

7.5.3 Loss and Damage

This section presents events that have affected livelihoods, ecosystems and cultural values, demonstrating growing vulnerability to extreme climate phenomena and environmental degradation.

Table 50. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Prolonged droughts and water scarcity (2019–2025)	Losses: deaths of goats, chickens, pigs and cattle; total loss of sweet potato, bean, watermelon, squash and maize crops; drastic decline in household income. Damage: reduced community production and dependence on external food.	Losses: reduced water flows and depletion of ponds. Damage: progressive desertification and loss of vegetation cover.	Losses: loss of food self-sufficiency and sense of natural abundance. Damage: weakening of the spiritual bond with land and water.
Water contamination from neighboring livestock activities	Losses: contamination of watercourses used for consumption, affecting human and animal health. Damage: higher expenditure on water and medicines.	Losses: contamination of local water sources. Damage: deterioration of water quality and fish mortality.	Losses: loss of water as a sacred element. Damage: spiritual distress caused by environmental degradation.
Torrential rainfall and flooding (2024–2025)	Losses: road damage and village isolation; partial destruction of gardens and homes. Damage: interruption of access to health, education and food.	Losses: erosion of roads and agricultural soils. Damage: sedimentation and loss of fertility.	Losses: interruption of community activities. Damage: loss of a sense of territorial stability and protection.
Extreme heat and heat stress	Losses: reduced work capacity and loss of small animals from heat exposure. Damage: lower productivity and impaired rest.	Losses: alteration of local ecosystems. Damage: increased vulnerability of fauna and flora.	Losses: loss of harmony with natural cycles. Damage: spiritual concern and collective emotional fatigue.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Lack of water access and community rationing (2022–2024)	Losses: water rationing by household; long queues to collect water; pumping-system failures due to low pond levels. Damage: loss of time and energy in obtaining water.	Losses: reduced water for crops and animals. Damage: loss of local water balance.	Losses: loss of confidence in territorial security. Damage: hopelessness over inability to produce and sustain life.
Shift toward livestock production and beekeeping as adaptation	Losses: abandonment of traditional agriculture and loss of dietary diversity. Damage: dependence on external inputs.	Losses: reduction of community crops. Damage: changes in land use.	Losses: loss of ancestral cultivation practices. Damage: transformation of the cultural relationship with the land.
Forest loss and external territorial pressure	Losses: native forest loss from external livestock expansion. Damage: reduced access to natural materials and foods.	Losses: forest fragmentation and environmental contamination. Damage: biodiversity decline.	Losses: loss of a sense of territorial freedom. Damage: collective distress from feeling surrounded and isolated.
Access difficulties and isolation due to deteriorated roads	Losses: interruption of transportation and access to basic services during rainfall. Damage: increased isolation and lost opportunities.	Losses: erosion and deterioration of rural roads. Damage: impacts on mobility and internal trade.	Losses: loss of contact among villages. Damage: weakening of community cohesion and unity.
Deterioration of community health and lack of medicines	Losses: shortage of medicines at the health post and increased illness. Damage: deterioration of overall health and lack of timely medical care.	Losses: deterioration of sanitary conditions. Damage: spread of infectious diseases.	Losses: loss of well-being as part of teko porã. Damage: emotional and spiritual distress due to precarious health conditions.
Loss of resources for handicrafts and artisanal fishing (women)	Losses: scarcity of raw materials (ysypo, karanday and natural fibers) due to drought. Damage: reduced income for women artisans.	Losses: disappearance of traditionally used plants. Damage: loss of ecological balance.	Losses: weakening of women's cultural and spiritual role. Damage: risk of losing traditions and identity practices.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Cultural erosion and loss of spirituality among youth	Losses: disconnection of youth from ancestral beliefs. Damage: reduced interest in cultural transmission.	Losses: loss of natural spaces for traditional teaching. Damage: weakening of collective spirituality.	Losses: loss of intergenerational bonds. Damage: weakening of the People's cultural and spiritual identity.

7.5.4 New Priorities Identified

As part of the Plan update process, ASADDEC communities identified urgent priorities to strengthen climate-change adaptation capacity and improve quality of life. The priorities arise from cumulative impacts of prolonged droughts, torrential rainfall, water contamination and progressive forest loss, which have affected both food security and traditional livelihoods.

Water Security and Equitable Access to Water

Access to water is the main concern and action priority for ASADDEC communities. In recent years, the territory has experienced prolonged droughts exceeding 18 months, completely drying ponds and reservoirs. During the most critical periods, fossil-fuel extraction pumps stopped operating due to lack of supplies, forcing families to ration water and organize collection shifts that take many hours each day.

Water scarcity has severely affected human consumption, food production and community livestock production, causing repeated crop losses and animal deaths. Communities also report contamination of water sources from neighboring agricultural and livestock activities, including herbicides and livestock waste.

ASADDEC proposes an integrated water-supply and storage system with a community and sustainability approach: solar-powered pumping systems; construction and expansion of ponds, cisterns and storage tanks strategically distributed across the 18 villages; gravity-fed or community distribution networks; and strengthened local water committees with technical training and participatory maintenance.

The initiative seeks safe and sufficient water for all villages, stronger climate resilience, reduced social and economic vulnerability and fulfillment of the Angaité communities' human right to water.

Productive Adaptation: Community Livestock and Small Animals

Traditional agriculture based on sweet potato, beans, maize, squash and watermelon no longer guarantees food security under the Chaco's extreme climate conditions. Prolonged lack of rainfall, declining soil fertility and lack of irrigation water have sharply reduced yields and increased economic and food losses.

As an adaptation response, communities propose strengthening community livestock and small-animal production—goats, pigs, chickens and poultry—as stable sources of protein, income and drought resilience. Small family groups currently share pasture, corrals and water sources, prioritizing sustainable land use and animal welfare. Goats are particularly valued for their resistance to heat and water scarcity.

Actions include improving productive infrastructure with community corrals, drinking troughs, water and shade systems; periodic technical assistance in animal management, health, nutrition and reproduction; livestock committees for marketing, water management and collective purchase of inputs; fodder production and feed banks for dry months; and sustainable low-impact practices combining traditional knowledge with modern management.

Strengthening livestock and small-animal production is a key climate-adaptation strategy that diversifies livelihoods, supports food security and economic and cultural self-sufficiency, and reduces dependence on external products.

Promotion of Community Beekeeping

ASADEC communities identified beekeeping as a strategic activity with high economic, environmental and cultural potential, capable of generating sustainable income without compromising native-forest conservation. It requires little water and contributes to natural pollination, forest regeneration and local agricultural production.

Between 2017 and 2018, the association received support from the departmental government of Presidente Hayes and INDI to install the first community beehives. Lack of continued technical assistance and access to materials and markets interrupted the activity, which now survives through the self-management of some families.

ASADEC proposes reactivating and expanding community beekeeping through appropriate equipment and materials (hives, protective suits, extractors, containers and harvesting tools); technical training in hive management, harvesting, honey quality and safety; community beekeeping groups for joint production and marketing; certification and added value for access to local and regional markets; and integration of beekeeping with environmental education for youth and women.

Community beekeeping is a viable and sustainable alternative that strengthens food security, the local economy and forest conservation while demonstrating productive adaptation to climate change.

Forest Protection and Sustainable Management

ASADEC conserves approximately 15,000 hectares of primary forest within the 22,500-hectare collective territory of La Patria. The forest is central to Angaité life for its ecological, spiritual and cultural value and provides water, food, natural medicines, handicraft materials and sacred spaces connected to ancestors.

Communities face growing external threats from agricultural-frontier expansion, illegal land clearing, agrochemical contamination of waterways and forest fires during extreme drought. ASADEC therefore prioritizes a community forest-monitoring and management system.

Actions include training and equipping community forest-fire brigades; forest-monitoring training and technologies such as GPS, cameras and drones; an early-warning and participatory territorial-control system coordinated with INFONA, the National Emergency Secretariat and local governments; reforestation and restoration with native Chaco species; and environmental education and transmission of traditional knowledge about sustainable forest use.

Sustainable forest management will maintain ecosystem services such as water regulation, shade, soil fertility and natural food and medicine, while safeguarding Angaité territorial and cultural sovereignty.

Road and Connectivity Improvement

Territorial isolation is a major difficulty for ASADEC communities, especially during intense rainfall and storms. Access roads to La Patria become impassable from accumulated water, mud and erosion, isolating villages for days or weeks and preventing entry of medicines, food, fuel and emergency assistance as well as transport of local products. Road destruction during the 2024 rains was particularly severe.

ASADEC prioritizes rehabilitation, maintenance and comprehensive improvement of rural roads connecting the 18 villages with nearby service centers. Actions include drainage channels, fords and adequate drainage; raising critical road sections in flood-prone lowlands; local materials and construction techniques adapted to Chaco soils; periodic community maintenance by trained local teams; and coordination with local and departmental governments for long-term sustainability.

Improved roads and internal connectivity will strengthen mobility, access to basic services, local-product marketing, education, health and institutional presence, contributing to overall well-being and resilience.

Cultural Strengthening, Women and Youth

Angaité women play a fundamental role in cultural preservation, transmission of traditional knowledge and food sustainability through artisanal fishing with baskets made from natural forest fibers and handicrafts using karanda'y and ysypo. Water scarcity, declining fish populations and difficulty obtaining raw materials increasingly constrain these activities, while forest loss and lack of logistical support or sales channels restrict handicraft production and marketing.

ASADEC proposes comprehensive cultural, social and economic strengthening programs with a gender and youth approach. Actions include technical support and materials for handicraft production with design, quality and added value; recovery and sustainable management of plant species used in handicrafts; training and participation spaces for women and youth in leadership, cultural education and economic management; local fairs and commercial partnerships; and stronger community radio and youth cultural initiatives to revitalize spirituality, language and traditional knowledge.

These actions aim to recognize the contributions of women and young people as custodians of ancestral knowledge, strengthen their participation in territorial management, and ensure the continuity of Angaité culture amid climate change and environmental transformation.

The following table summarizes the new priorities defined by ASADEC communities for the 2025–2030 period.

Table 51. Summary of new priorities of the Angaité Association for Community Development (2025–2030)

Proposed initiative	Challenge / description	Planned actions
Water Security and Equitable Access to Water	Communities face prolonged droughts of up to 18 months that dry ponds and reservoirs. Fuel pumps stop operating when supplies are unavailable, forcing water rationing. Agro-chemical contamination from neighboring ranches is also reported.	Implement an integrated water-supply and storage system; install solar pumps; construct and expand ponds, cisterns and storage tanks in all 18 villages; establish gravity-fed distribution networks; strengthen community water committees and participatory maintenance.
Productive Adaptation: Community Livestock and Small Animals	Traditional agriculture is no longer viable because of lack of rainfall and soil deterioration. Crop and animal losses reduce food security and income.	Strengthen community livestock and small-animal production; build corrals, drinking troughs and shade systems; train in animal management, nutrition and health; organize livestock committees; promote fodder production and sustainable practices.
Promotion of Community Beekeeping	Beekeeping developed in 2017–2018 with institutional support but lost technical follow-up and market access. It now continues in isolated cases through self-management.	Reactivate and expand community beekeeping; acquire equipment; train in hive management, harvesting and honey quality; organize beekeeping groups; promote certification and added value; link beekeeping with environmental education and youth participation.
Forest Protection and Sustainable Management	ASADEC conserves 15,000 ha of primary forest threatened by land clearing, fires and contamination. Monitoring, equipment and community control are lacking.	Create a community forest-monitoring system; form and equip fire brigades; train in GPS, drones and environmental surveillance; implement early warning; restore degraded areas with native species; promote environmental education and traditional knowledge.

Proposed initiative	Challenge / description	Planned actions
Road and Connectivity Improvement	During rainfall, roads become impassable, isolating villages and limiting access to food, medicines and markets.	Rehabilitate and maintain rural access roads; add channels, fords and drainage; raise critical sections; apply construction techniques adapted to Chaco soils; promote community maintenance and coordination with authorities.
Cultural Strengthening, Women and Youth	Women and youth maintain traditional practices such as artisanal fishing and handicrafts with karanday and ysyro, but face water scarcity, loss of raw materials and lack of sales channels.	Support handicraft production with training, materials and added value; recover plant species used in handicrafts; create training and leadership spaces for women and youth; promote local fairs and commercial partnerships; strengthen community radio and youth cultural activities.

7.6. Federation of Indigenous Peoples and Organizations of the Paraguayan Chaco (FEPOI)

The Federation of Indigenous Peoples and Organizations of the Paraguayan Chaco (FEPOI) is an interethnic organization bringing together various Indigenous communities of the Paraguayan Chaco, especially in the departments of Presidente Hayes and Boquerón, and is currently undergoing an internal redefinition process. Its creation responds to the need to strengthen representation, defense of collective rights and territorial management of Indigenous Peoples living in one of the country’s most vulnerable and strategic regions.

FEPOI has served as a space for coordination and participation where communities can discuss and decide on matters related to territory, water, health, education, sustainable production and environmental conservation. Its work focuses on ensuring that communities are heard in decision-making processes, promoting application of the right to free, prior and informed consultation, and protecting the natural resources that sustain their way of life.

Today, its work is focused more closely on certain Chaco communities. In a context marked by accelerated deforestation, expansion of the agricultural frontier, biodiversity loss and climate-change impacts, FEPOI plays a fundamental role as a representative actor and channel for dialogue between communities and public institutions, cooperation organizations and

national and international Indigenous networks. The federation promotes the autonomy and self-determination of Indigenous Peoples, strengthening their capacities to manage their territories, conserve forests and transmit ancestral knowledge to new generations.

7.6.1 Prioritization of Extreme Climate Events

During the Plan update process, communities identified the extreme climate events that affect them most:

Table 52. Prioritization of extreme climate events

Priority	Extreme climate event	Description
	Prolonged droughts	Prolonged droughts are the phenomenon that most affects FEPOI communities, drastically reducing water availability for human consumption, animals and agriculture. Lack of rainfall has reduced levels in ponds, wells and cisterns and caused significant losses in subsistence crops such as beans, sesame, squash and watermelon. It has also forced many families to sell small livestock, affecting food security and income. Drought has additionally affected health, worsening respiratory problems and hindering beekeeping through loss of hives and flowers.
	Intense rainfall with flooding and localized storms	When intense rainfall is concentrated over short periods, flooding damages homes and community infrastructure, especially roofs and walls made of fragile materials. Flooding has destroyed roads, isolated the population and affected access to basic services. The most serious events occurred in 2018, when floods damaged or destroyed dozens of homes and rendered agricultural areas unusable.
	Burning and forest fires	Although forest fires often occur outside inhabited areas, they generate serious indirect impacts. Smoke and high temperatures affect respiratory health among children and adults and increase stress and insecurity. Fires have also caused forest loss, destroying essential natural resources such as karaguatá used for handicrafts and affecting local biodiversity. In 2023, five hectares of forest were lost.

*Priority level according to community perceptions: red = highest priority; orange = intermediate priority; yellow = lower priority.

7.6.2 Progress and Setbacks in Climate Action

En el proceso de actualización del plan, se identificaron experiencias importantes que marcaron avances, pero también limitaciones para hacer frente al cambio climático. Se presenta una descripción de cada uno en la siguiente tabla:

Cuadro 53. Avances y retrocesos de la Federación de Pueblos y Organizaciones Indígenas del Chaco Paraguayo (FEPOI)

Area	Progress	Setbacks or limitations
Agricultural production and market access	Implementation of MAG’s PIMA Project (2021–2022), which strengthened sheep, chick and crop production and left installed capacities to maintain and expand these activities.	The project ended without continuity, limiting technical support and access to inputs needed to sustain productivity.
Community livestock production	Development of a community livestock model with FIDA agricultural loans, benefiting 30 people organized into six groups producing milk, meat and derivatives.	Loan repayment creates financial risk when droughts or other climate events cause productive losses, increasing household economic vulnerability.
Forest certification and environmental services	Progress toward certification of 400 hectares of forest under the environmental-services regime, promoted by Paraguay + Verde and MADES with support from Hendata, to generate income from forest conservation.	Certification is not yet complete, so communities have not received economic benefits and face limitations in sustainable forest management.
Beekeeping production	A beekeeping project promoted by A Todo Pulmón provided 14 productive hives, diversifying livelihoods and supporting pollination and environmental care.	The 2020 drought caused the loss of 12 hives. Irrigation systems and permanent technical assistance are lacking.
Educational and community infrastructure	Expansion of the community school, which also serves as a multipurpose space and potential shelter during climate emergencies.	The school requires continuous maintenance and not all federation communities have similar facilities for climate emergencies.
Housing infrastructure	A project to construct 35 homes with MUVH is under implementation, seeking more rain- and wind-resistant housing.	Storms and floods have destroyed roofs and damaged existing homes, and housing needs remain unmet for many vulnerable families.

Area	Progress	Setbacks or limitations
Water supply	Construction of ponds, wells and water tanks promoted by A Todo Pulmón has improved access to water and drought resilience.	Storage capacity remains insufficient during prolonged droughts; many ponds and cisterns are depleted, limiting water for people and agriculture.
Women's economy	Training in baked goods and textile projects promoted by A Todo Pulmón and the departmental government strengthens women's enterprises.	Lack of start-up capital, sufficient equipment and stable market access limits growth and long-term sustainability.
Youth and environmental technology	Youth training in drone-based forest monitoring by Naturaleza para la Vida introduced new tools for detecting fires and land clearing.	The short-duration project is no longer active, limiting continuity of learning and sustained use of technology.
Marketing and community store	The community store was expanded through community self-management, improving access to essential products and strengthening local autonomy.	Lack of external logistical and financial support limits its capacity to grow and fully meet local demand.

7.6.3 Loss and Damage

This section presents events that have affected livelihoods, ecosystems and cultural values, demonstrating growing vulnerability to extreme climate phenomena and environmental degradation.

Table 54. Identified Loss and Damage

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Storms, intense rainfall and flooding (2018–2022)	Losses: total or partial destruction of 89 homes and structural damage to 10 houses; loss of furniture, roads and basic services. Damage: high reconstruction costs and prolonged isolation.	Losses: waterlogged soils and water contamination. Damage: deterioration of local habitats and loss of vegetation cover.	Losses: loss of community and family spaces. Damage: emotional impact and social vulnerability.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Prolonged droughts and agricultural loss (2020–2024)	Losses: total losses of watermelon, squash, bean and sesame crops, with up to 10 ha affected per year. Damage: food insecurity and reduced income.	Losses: soil degradation and depletion of surface moisture. Damage: erosion and loss of agricultural fertility.	Losses: loss of traditional agricultural knowledge. Damage: collective discouragement due to inability to produce.
Loss of beekeeping production (2020)	Losses: loss of 12 honey-producing hives, a key source of family income. Damage: reduced local economic activity.	Losses: decline in bee populations due to drought. Damage: loss of pollination services.	Losses: loss of traditional practices linked to beekeeping. Damage: weakening of honey's symbolic value in local culture.
Loss of small livestock due to drought (2020–2022)	Losses: death or forced sale of sheep, chickens and pigs; total loss of 45 chickens in 2022. Damage: reduced household assets and food security.	Losses: loss of domestic diversity. Damage: ecological imbalance and loss of organic matter.	Losses: loss of animals with cultural and ritual value. Damage: sadness and a sense of vulnerability.
Health impacts from drought and COVID-19 (2020–2022)	Losses: increased respiratory illness and weakened immune systems. Damage: higher medical expenditure and loss of human life during the pandemic.	Losses: deterioration of sanitary conditions. Damage: proliferation of disease due to lack of water.	Losses: loss of physical and spiritual well-being. Damage: stress, fear and collective grief.
Loss of sesame crops due to extreme drought (2021)	Losses: loss of five hectares of sesame, an essential cash crop. Damage: reduced annual household income.	Losses: loss of cultivated vegetation cover. Damage: deterioration of agricultural soil.	Losses: loss of a sense of productive self-sufficiency. Damage: frustration and loss of hope.
Lack of water and water crisis (2021–2023)	Losses: depletion of ponds and cisterns and need to purchase water. Damage: unsustainable expenditure for low-income families.	Losses: drastic decline in natural water sources. Damage: alteration of the local water cycle.	Losses: loss of water as a vital and sacred element. Damage: weakening of the spiritual bond with nature.

Event or situation	Material / economic Loss and Damage	Environmental Loss and Damage	Cultural / spiritual Loss and Damage
Loss of raw materials for handicrafts (2024)	Losses: scarcity of karaguatá and other natural fibers and reduced household income. Damage: lower handicraft production and lost markets.	Losses: temporary disappearance of plant species used for handicrafts. Damage: loss of plant biodiversity.	Losses: weakening of the cultural role of women artisans. Damage: loss of an ancestral legacy transmitted across generations.
Damage from soybean spraying and environmental contamination	Losses: impacts on crops, animals and human health from agrochemical exposure. Damage: additional medical expenses and reduced productivity.	Losses: deforestation and contamination of air, soil and water. Damage: disappearance of wild fauna and flora.	Losses: loss of ecological balance in the tekoha. Damage: impacts on spiritual well-being due to environmental contamination.
Forest loss due to fires (2023)	Losses: burning of five hectares of forest; loss of timber and forest resources. Damage: reduced availability of handicraft materials.	Losses: habitat destruction and loss of medicinal plants. Damage: ecological fragmentation and soil erosion.	Losses: loss of the forest as a source of life and wisdom. Damage: spiritual pain and uprooting.

7.6.4 New Priorities Identified

As part of the Plan update process, FEPOI communities identified initiatives needed to address urgent challenges, improve climate-change adaptation capacities and strengthen resilience.

Integrated Water Management and Strengthening Water Resilience

FEPOI communities face prolonged droughts that have considerably reduced water levels in ponds, cisterns and wells, affecting water availability for human consumption, agricultural production, livestock and handicraft activities. This has generated growing water insecurity, worsening health, the economy and family well-being, especially during dry months.

Water scarcity also limits women’s handicraft production. Karaguatá, the principal raw material for traditional basketry and weaving, requires abundant clean water for washing and soaking. Limited access has reduced production, household income and continuity of an ancestral practice.

FEPOI prioritizes comprehensive strengthening of community water management by combining infrastructure expansion with organization, training and participatory maintenance. Lines of action include construction or rehabilitation of ponds,

wells and household/community cisterns; larger tanks connected to roof-and-gutter rainwater harvesting; a tank or cistern at the Women's House for karaguatá processing; community water committees; training in efficient use, sanitary management and safe collection; community monitoring of water levels and infrastructure failures; and prioritization of vulnerable households and women's productive groups during critical drought periods.

Forest Restoration and Recovery of Karaguatá

Progressive forest loss and prolonged droughts have drastically reduced karaguatá (*Eryngium paniculatum*), a native plant of great cultural, economic and environmental value used ancestrally by women to make baskets, bags and woven products. Artisans increasingly travel long distances, sometimes outside community territory, to collect it.

FEPOI promotes restoration of native forests and regeneration of karaguatá as a cultural, ecological and economic priority. Lines of action include identifying priority restoration areas; participatory research on karaguatá reproduction and sustainable management; community nurseries and demonstration plots; gender-responsive reforestation involving women artisans and youth; community agreements for sustainable use; and restoration of up to 7,000 hectares of forest under conservation and sustainable-management schemes.

Sustainable Agricultural Production, Diversification and Marketing of Local Products

Agriculture is a major livelihood source, but prolonged droughts, soil degradation and lack of appropriate technologies have affected essential crops such as sesame, beans and fruit trees, causing economic losses and reduced food security.

FEPOI promotes an integrated strategy for technological improvement, diversification and marketing combining innovation, sustainability and equity. Lines of action include irrigation for sesame and beans; training in sustainable management, soil conservation and rational water use; citrus production, especially lemon and grapefruit; drought-resistant varieties; household and community gardens with agroecological technical assistance; training in processing, added value and collective marketing; and coordination with local and institutional markets to secure fair prices and direct consumer access.

Strengthening Community Livestock, Small Animals and Sustainable Pasture Management

Community livestock production provides milk, meat and eggs for consumption and sale, but recurrent droughts and pasture degradation have reduced feed and water availability.

The project seeks to strengthen sheep, cattle and dual-purpose laying-hen production through improved infrastructure, animal management, water access and continuous technical assistance, while promoting women's leadership and sustain-

nable pasture recovery. Actions include corrals, drinking troughs and shelters; livestock water-harvesting systems; training in sustainable management, nutrition and animal health; stronger roles for women in production and marketing; pasture restoration through rotation, planting and ecological management; and exchange of experiences among communities.

Youth Training in Environmental Monitoring and Climate Management

Youth participation in environmental management is essential for continuity of knowledge and long-term sustainability. In 2022, FEPOI promoted an initial drone-monitoring experience that enabled detection of fires and land clearing, but it was short-lived.

The new initiative seeks to resume and expand technological and environmental training for Indigenous youth in forest monitoring, climate management and territorial leadership. Actions include training in drones, cartography and satellite monitoring; fire management, land-clearing control and forest conservation; youth environmental-monitoring brigades; coordination with environmental institutions for technical exchange and conservation programs; and integration of youth as territorial monitors in community adaptation plans.

Strengthening Access to Medicines for Illnesses Related to Droughts and Burning

Prolonged droughts and smoke from forest fires have increased respiratory conditions, allergies, dehydration and other health problems, while access to medicines and basic medical care remains limited, especially in isolated territories.

The initiative seeks to improve availability of essential medicines and basic supplies at community health posts and strengthen preventive care. Actions include medicines and essential supplies; training local agents in first aid, emergency management and respiratory health; prevention campaigns on hydration, water quality and disease control during droughts; and coordination with public institutions to strengthen rural health-care networks.

Credit Support Project to Address Climate Change

FEPOI families have limited access to credit adapted to their climate and productive realities, increasing economic vulnerability after agricultural or livestock losses from droughts and floods. Lack of flexible financing creates indebtedness and hinders economic recovery.

The project proposes accessible, solidarity-based and sustainable financing mechanisms for agricultural, livestock and entrepreneurial activities affected by climate change. Actions include a community revolving productive-support fund; training in financial management, savings and microcredit administration; green or adaptive loans linked to sustainable practices; and partnerships with financial institutions and public programs to expand access to rural finance.

The following table summarizes the new priorities defined by FEPOI communities for the 2025–2030 period.

Table 55. Summary of new priorities of the Federation of Indigenous Peoples and Organizations of the Paraguayan Chaco (FEPOI) (2025–2030)

Proposed initiative	Challenge / description	Actions
Integrated Water Management and Strengthening Water Resilience	Prolonged droughts reduce water in ponds, cisterns and wells, affecting human consumption, production and handicrafts. Scarcity especially limits women’s work with karaguatá.	Construct and rehabilitate ponds, cisterns and wells; install rainwater-harvesting tanks; provide a tank at the Women’s House; create community water committees; participatory water-level monitoring and prioritization of vulnerable families.
Forest Restoration and Recovery of Karaguatá	Forest loss and drought have drastically reduced karaguatá, forcing women to travel long distances and affecting both income and cultural preservation.	Identify restoration areas; establish community nurseries and demonstration plots; research karaguatá reproduction and sustainable management; participatory reforestation with women and youth; community conservation agreements and restoration of up to 7,000 ha.
Sustainable Agricultural Production, Diversification and Marketing of Local Products	Traditional crops such as sesame and beans have been severely affected by drought and lack of technical assistance, reducing yields and income.	Irrigation for sesame and beans; training in soil conservation, agroecology and crop adaptation; citrus and community gardens; drought-resistant varieties; stronger local processing and marketing.

Proposed initiative	Challenge / description	Actions
Strengthening Community Livestock, Small Animals and Sustainable Pasture Management	Drought and pasture degradation reduce feed and water for livestock, affecting milk, meat and egg production. Women producers require technical and infrastructure support.	Livestock water systems; improved corrals, drinking troughs and shelters; training in nutrition, management and health; pasture restoration through rotation and forage planting; strengthen women's leadership.
Youth Training in Environmental Monitoring and Climate Management	Previous drone training was positive but did not continue. Youth need sustained training for environmental surveillance and territorial management.	Training in drones, cartography and satellite monitoring; youth environmental brigades; participation in restoration and fire prevention; coordination with environmental institutions.
Strengthening Access to Medicines for Illnesses Related to Droughts and Burning	Drought and fires increase respiratory conditions, dehydration and air-pollution-related illness, while health posts lack medicines and basic equipment.	Provide medicines and essential supplies; train community health agents; preventive hydration and health campaigns; coordinate with public institutions to strengthen rural care.
Credit Support Project to Address Climate Change	Lack of climate-adapted credit limits household recovery after agricultural or livestock losses and creates indebtedness.	Create a community revolving fund; financial-management and savings training; green credit for sustainable practices; coordination with rural financial entities and public programs.

CHAPTER 8. Potential Partners for the Implementation of the Plan

CHAPTER 8. Potential Partners for the Implementation of the Plan

This chapter presents a summary of the institutions, organizations and entities considered potential strategic partners for implementation of the climate action plan aimed at Indigenous associations. Each partner has been selected based on its technical, territorial, institutional or cultural capacity to contribute effectively to adaptation, mitigation, resilience and climate governance in Indigenous territories of the Chaco and other regions of the country.

The following table serves as a reference tool for intersectoral coordination and the coordinated management of resources, roles and responsibilities among State, community, academic, private-sector and international-cooperation actors. Its proper use will help avoid duplication, optimize synergies and strengthen collective implementation within the framework of inclusive and intercultural public policies.

Table 56. Classification of potential partners for implementation of the Plan

Institution / Organization	Type of Partner	Geographic Scope	Definition / Expected Role
SENASA (National Environmental Sanitation Service)	Public institution	National	Agency responsible for promoting and supervising environmental sanitation in rural and Indigenous communities; expected role in the Plan: ensure that water and sanitation infrastructure integrated into Indigenous communities is resilient to climate change.
MOPC (Ministry of Public Works and Communications)	Public institution	National	Ministry responsible for public infrastructure; expected role: collaborate in the design of climate-resilient infrastructure, access roads and disaster-evacuation routes in Indigenous and rural areas.

Institution / Organization	Type of Partner	Geographic Scope	Definition / Expected Role
MADES (Ministry of Environment and Sustainable Development)	Public institution	National	Responsible for the country's environmental policies; expected role: coordinate the national climate-change adaptation strategy with Indigenous Peoples and facilitate implementation of local adaptation actions.
Government of Itapúa	Departmental government	Departmental (Itapúa)	Local government of the department of Itapúa; expected role: coordinate actions among municipalities, Indigenous communities and associations in the region to implement the Plan and mobilize departmental resources.
Municipalities (municipal governments)	Local government	Local	Municipal governments of the districts involved; expected role: ensure that Plan actions are integrated at the municipal level and facilitate permits, logistics and community participation.
FAPI (Federation for the Self-Determination of Indigenous Peoples)	Indigenous organization	National	Federation coordinating 13 Indigenous organizations; expected role: represent Indigenous communities, mobilize traditional knowledge and lead participatory climate-change adaptation processes.

Institution / Organization	Type of Partner	Geographic Scope	Definition / Expected Role
INFONA (National Forestry Institute)	Public institution	National	Entity responsible for forest management; expected role: collaborate in forest restoration and sustainable management of Indigenous natural resources, linking mitigation with local adaptation.
MAG (Ministry of Agriculture and Livestock)	Public institution	National	Responsible for the agricultural and livestock sector; expected role: support climate-adapted agricultural diversification in Indigenous communities and promote good agricultural practices for adaptation.
Ministry of Culture	Public institution	National	Responsible for cultural heritage; expected role: integrate Indigenous traditional climate knowledge into the Plan and ensure that adaptation respects cultural identity.
Ministry of Industry and Commerce	Public institution	National	Responsible for the industrial and commercial sector; expected role: promote local green industries and add value to sustainable Indigenous products as part of economic resilience to climate change.
ANDE (National Electricity Administration)	Public company	National	National electricity generation and distribution company; expected role: facilitate sustainable electrification of Indigenous communities and climate-resilient infrastructure.

Institution / Organization	Type of Partner	Geographic Scope	Definition / Expected Role
Government of Caazapá	Departmental government	Departmental (Caazapá)	Government of the department of Caazapá; expected role: coordinate climate-adaptation actions within its jurisdiction and involve local and Indigenous communities.
Municipality of Abaí	Local government	Local (Abaí)	Municipal government of Abaí; expected role: implement community actions in specific districts, mobilize local participation and ensure continuity of the Plan at district level.
CETEC (Center for Technology and Research)	Research / technical institution	National	Technical center; expected role: provide technical assessment, monitoring tools and climate-adaptation solutions for Indigenous communities.
PAHO/WHO (Pan American Health Organization / World Health Organization)	International health organization	Regional/National	Global public-health organizations; expected role: support Indigenous health responses to climate-change impacts such as heat waves and diseases, and adaptive-health protocols.
INDI (Paraguayan Indigenous Institute)	Public institution	National	State institution representing Indigenous Peoples; expected role: facilitate coordination between the State and Indigenous communities and ensure intergenerational and intercultural inclusion in the Plan.
SNPP (National Professional Promotion Service)	Public institution	National	Technical vocational-training institution; expected role: train Indigenous youth in technical skills for climate-change adaptation and green jobs.

Institution / Organization	Type of Partner	Geographic Scope	Definition / Expected Role
MEC (Ministry of Education and Sciences)	Public institution	National	Ministry of education; expected role: incorporate environmental education and climate change into school curricula in Indigenous communities and build awareness and information.
Public and private universities	Academia	National	Higher-education institutions; expected role: conduct applied climate-change research in Indigenous territories, train human resources and systematize local knowledge.
National Secretariat of Culture	Public institution	National	Responsible for culture and heritage; expected role: raise the visibility of Indigenous traditional knowledge on climate and the environment within the Plan and ensure that environmental culture is integrated.
SENAVE (National Service for Plant and Seed Quality and Health)	Public institution	National	Plant and agricultural health entity; expected role: contribute to agronomic adaptation in Indigenous communities and surveillance of pests and epidemics linked to climate change.
Ministry of Women	Public institution	National	Ministry responsible for gender equality; expected role: ensure a gender perspective in climate-change adaptation actions in Indigenous communities and strengthen women's leadership.

Institution / Organization	Type of Partner	Geographic Scope	Definition / Expected Role
SENATUR (National Secretariat of Tourism)	Public institution	National	Responsible for sustainable tourism; expected role: promote ecotourism in Indigenous communities as a sustainable-development and climate-resilience strategy.
Itaipu Binational Entity	Binational company / cooperation	National/International	Itaipu Binational; expected role: provide resources, infrastructure and energy- and climate-resilience initiatives for Indigenous and rural communities.
Ministry of Justice	Public institution	National	Ministry of justice; expected role: ensure respect for Indigenous rights in implementation of the climate plan and facilitate environmental-justice mechanisms for vulnerable communities.
Paraguayan Institute of Handicrafts	Public institution	National	Promotes handicrafts and local culture; expected role: add value to sustainable Indigenous products and strengthen economic resilience to climate change through cultural production.
Government of Boquerón	Departmental government	Departmental (Boquerón)	Government of the department of Boquerón; expected role: coordinate climate-change adaptation actions in the Chaco region and involve Indigenous Peoples of the Chaco in the Plan.
Avina Foundation	Private foundation / cooperation	National/International	Foundation supporting sustainable development; expected role: finance and promote climate-change adaptation and resilience initiatives in Indigenous communities.

Institution / Organization	Type of Partner	Geographic Scope	Definition / Expected Role
Naturaleza para la Vida	NGO / Research Center	National	Socio-environmental research and development organization; expected role: lead research, monitoring and climate-change training for Indigenous Peoples and coordinate with communities and policies.
AECID (Spanish Agency for International Development Cooperation)	International cooperation	International/National	Development-cooperation agency; expected role: provide financing and technical assistance for climate-change adaptation projects in Indigenous communities.
Youth organizations	Civil society (youth)	Local/National	Organized youth in Indigenous or rural communities; expected role: lead youth climate-adaptation initiatives, mobilize peers and disseminate education among Indigenous youth.
Indigenous organizations (local)	Indigenous civil society	Local	Specific Indigenous community organizations; expected role: implement climate-change adaptation actions based on traditional knowledge and participate in local monitoring and governance.
Local governments (municipalities, districts)	Local government	Local	Municipal/district authorities; expected role: implement adaptation-plan actions locally, enable infrastructure and facilitate community and intersectoral participation.

Institution / Organization	Type of Partner	Geographic Scope	Definition / Expected Role
Indigenous health promoters	Civil society / health	Local	Indigenous community health agents; expected role: integrate the health–climate adaptation dimension in Indigenous communities, promote resilient practices and provide early warning of disease.
Community radio stations	Media (local)	Local	Community-based radio stations in Indigenous territories; expected role: disseminate environmental-education and climate-change messages, mobilize communities and promote participation by youth and women.
Yerba mate industries	Private sector	National/Regional	Industries linked to yerba mate; expected role: incorporate sustainable production chains adapted to climate change and partner with Indigenous communities for resilient production.

CHAPTER 9. MAIN CONCLUSIONS AND INTEGRATED SYNTHESIS OF CLIMATE IMPACTS AND PRIORITIES OF INDIGENOUS PEOPLES REPRESENTED BY FAPI

CHAPTER 9. Main Conclusions and Integrated Synthesis of Climate Impacts and Priorities of Indigenous Peoples Represented by FAPI

The 2025 update of the Indigenous Climate Action Plan (PIAC) brought together and documented a wealth of knowledge, perspectives, and experiences shared by Indigenous Peoples in Paraguay through FAPI's member associations. Workshops held in the Eastern and Western Regions revealed the profound effects of climate change on community life, undermining communities' resilience and threatening the continuity of their traditional ways of life.

Taken together, the findings point to a widespread environmental crisis in which climate change is closely intertwined with long-standing pressures, including deforestation, intensive land use, agricultural and livestock expansion, structural poverty, and unequal access to natural resources. Despite the ecological differences between regions, Indigenous Peoples share a common understanding: the environmental balance that has long sustained their cultures and livelihoods has been severely disrupted, and their territories face mounting pressures.

Water insecurity emerged as one of the most urgent challenges. Communities reported declining water flows, depleted ponds and cisterns, and contamination of water sources by agrochemicals and extractive activities. In many communities, access to safe water depends on purchasing water delivered by tanker trucks or collectively rationing limited supplies. This situation undermines the fundamental right to life and reflects a clear form of climate injustice. Within Indigenous world-views, water is a source of life, purification, and balance. Its growing scarcity has become one of the clearest signs of the disruption of the natural bond between communities and their territories.

The loss of forests and biodiversity is another major concern. In the Eastern Region, expanding soybean cultivation and agrochemical use have destroyed remaining areas of native forest, along with wildlife habitats, natural food sources, and medicinal plants essential to Indigenous livelihoods and ancestral practices. In the Chaco, deforestation, drought, and forest fires have reduced vegetation cover and disrupted ecological cycles, leaving the landscape increasingly dry and vulnerable. These changes affect more than food production and livelihoods. They also threaten the spiritual lives of Indigenous Peoples, for whom the forest is a place of wisdom, healing, and connection with their ancestors.

Soil degradation further compounds the loss of forests. Changes in land use and disruptions to water availability have severely affected soil conditions. In the Eastern Region, agrochemical use and erosion associated with monoculture have depleted natural soil fertility. In the Chaco, prolonged droughts harden the soil, making cultivation increasingly difficult or

even impossible. Traditional crops such as cassava, maize, beans, and sesame suffer repeated losses, while insufficient rainfall prevents their recovery. Beyond its agricultural consequences, soil degradation threatens food sovereignty by forcing communities to rely on increasingly costly external food supplies.

Forest fires and heat waves have become more frequent and destructive. In the Chaco, where temperatures can reach 50°C, fires spread rapidly, destroying farmland, homes, and native forests. In the Eastern Region, agricultural burning contributes to deforestation and worsening air quality, affecting community health. The damage extends far beyond material losses. Fires also destroy sacred places used for ceremonies and community gatherings, leaving profound and often irreparable emotional and spiritual impacts.

Communities have repeatedly reported contamination from pesticide spraying in areas of intensive agriculture, particularly in Caazapá, Canindeyú, Itapúa, and Alto Paraná. Indiscriminate pesticide applications harm human health, contributing to respiratory, gastrointestinal, and reproductive illnesses, while also contaminating the air, streams, and soils. The disappearance of bees, deaths of domestic animals, and declining fish populations are further signs of the ecological damage associated with this model of agricultural production.

In the Chaco, extreme rainfall and deteriorating roads create additional challenges by isolating communities. Flooding can cut off access to health care, education, and markets for extended periods. Basic infrastructure is poorly suited to changing climate conditions: strong winds and storms destroy homes built with lightweight materials, while roads may remain impassable for months. These structural weaknesses heighten existing risks and severely limit communities' ability to adapt.

Climate change is also placing Indigenous cultures and community ties under growing strain. Youth migration to urban areas, declining transmission of traditional knowledge, and the weakening of spiritual practices are transforming community life. Elders in many communities express sadness that children and young people are no longer learning to read weather patterns or recognize medicinal plants, the stars, lunar cycles, animals, winds, sounds, forests, and rivers. Climate change is therefore not only an environmental crisis; it also poses a profound cultural threat to the continuity of Indigenous values, traditions, and identities.

Despite these challenges, Indigenous communities continue to draw strength from their cultures, sustaining their resilience amid pain, loss, and hope. During the PIAC workshops, FAPI member associations identified strategic priorities that reflect their determination to adapt and sustain life under increasingly difficult conditions. Water security emerged as the

leading priority, with communities calling for the construction and maintenance of ponds, cisterns, and solar-powered pumping systems, as well as the protection of natural springs. Sustainable water management is essential to safeguarding health, livelihoods, and life itself.

Restoring native forests and conserving biodiversity are equally important priorities. Communities propose establishing local nurseries for medicinal and fruit-bearing species, reforestation degraded areas, and restoring community forests that provide food, medicine, and spaces of spiritual significance. At the same time, the proposed transition toward agroecological systems aims to improve food self-sufficiency, recover native seeds, and diversify agricultural production through sustainable practices that combine traditional knowledge with appropriate innovation.

Communities also recognize the importance of the environmental services provided by their territories, including carbon sequestration, biodiversity conservation, and water regulation. These contributions play an essential role in maintaining Paraguay's climate balance. However, participants emphasized that carbon-market mechanisms and the national payment-for-environmental-services system remain poorly understood. Selling environmental-service certificates requires entering unfamiliar markets, making it difficult to ensure transparent transactions and fair trading conditions. Any such mechanisms must therefore be approached with caution, with full respect for territorial rights and direct community participation. For Indigenous Peoples, forests are not merely commercial resources but living beings with which they maintain profound spiritual relationships. Compensation and payment-for-environmental-services schemes must recognize these cultural values and ensure tangible, equitable benefits for the communities that protect these ecosystems.

Indigenous women emphasized the importance of protecting the natural resources used in traditional handicrafts, particularly fibers such as karaguatá, karanda'y, and tacuarembó. Their growing scarcity threatens not only household incomes but also a cultural heritage passed down through generations. From this perspective, Indigenous economic activities cannot be viewed as separate from culture and territory. Rather, they reflect Indigenous identity and a relationship with nature grounded in balance and reciprocity.

Community health is another major concern. Indigenous communities reported increasing cases of respiratory, gastrointestinal, and vector-borne diseases associated with extreme heat, flooding, and limited access to safe drinking water. Health care remains scarce, expensive, and largely inaccessible. In many areas, existing health facilities depend on private cooperatives or external organizations that do not adequately consider Indigenous cultural realities. Communities therefore call for public health policies that incorporate ancestral medical knowledge, ensure access to essential medicines, and promote disease prevention through an intercultural approach.

Education and youth participation are equally critical to the future of Indigenous communities. Indigenous Peoples recognize the need to prepare new generations to bring ancestral knowledge together with contemporary tools and technologies. Young people must play a leading role in climate adaptation, supported by educational opportunities, access to technology, and meaningful participation in decision-making. At the same time, inadequate climate-resilient infrastructure limits these opportunities and threatens territorial security. Investments in roads, housing, solar energy, and communication systems are therefore essential to improve connections with the wider world and enable young people to participate actively in their communities' development.

Assessing the economic value of climate-related loss and damage is particularly challenging because of the many factors involved. These impacts extend beyond financial losses to encompass social, cultural, environmental, and spiritual dimensions. While losses involving crops, livestock, or homes may be quantified, some of the most profound impacts cannot be measured in monetary terms. The disappearance of sacred forests, medicinal plants, and places used for ceremonies and celebrations threatens spiritual traditions and collective identity. Money alone cannot compensate for these losses. Addressing them requires environmental restoration, cultural revitalization, and recognition of the symbolic and spiritual value of Indigenous territories.

Strong territorial governance is essential to effective climate action. FAPI member associations emphasized the need to improve internal organization, establish community emergency-response protocols, and develop Indigenous-led climate and environmental monitoring systems. They also called for progress toward direct access to climate-finance mechanisms, including the Green Climate Fund and the Fund for Responding to Loss and Damage. Such access must recognize Indigenous Peoples as legitimate actors and direct beneficiaries of climate-finance resources.

Ultimately, Indigenous Peoples affirm that addressing climate change is inseparable from climate justice and the defense of their collective rights. Climate action must recognize their longstanding contributions to ecosystem conservation and ensure that solutions are not imposed from outside but emerge from the territories and communities themselves. Self-determination, respect for traditional knowledge, and meaningful participation must guide climate-related public policies.

The PIAC 2025 demonstrates that Indigenous Peoples are not only among those most affected by climate change; they also offer some of the most coherent and sustainable solutions. Their worldviews, grounded in reciprocity with nature, provide essential insights into restoring the relationship between humanity and the environment. Indigenous resilience is more than resistance: it represents a living vision of balance, dignity, and a shared future.

The challenge now is for the Paraguayan State, international development partners, and society as a whole to recognize Indigenous Peoples as strategic partners in building a country grounded in climate justice. Adaptation, mitigation, and territorial restoration must serve a common purpose: protecting life in all its forms and ensuring the cultural continuity of those who have lived on and cared for the land since ancestral times.

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