



TSIM KA

STRATEGIC PLAN
2024-2030

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MESSAGE FROM THE PRESIDENT



Dear reader,

Home to rich and exceptional biodiversity, the island of Madagascar stands out for its resplendent beauty and remarkable landscapes. However, over-exploitation of the country's natural resources is leading to the gradual degradation of ecosystems and the disappearance of many species. As a result, the livelihoods of communities who depend on the use of these resources are severely affected.

Tsimoka was established by young people who were concerned about nature conservation. In response to the major challenges facing environmental crises, the association has taken its responsibilities of providing sustainable solutions. Fully aware of the alarming state of Madagascar's biodiversity, the association is committed to protecting the country's natural resources, restoring areas degraded by human activity, and helping local communities in their daily lives.

To this end, Tsimoka has carried out a number of experiments. It has been particularly successful in deploying dry forest restoration and dynamic agroforestry techniques, which have enabled the rehabilitation of the ecological functions of ecosystems for the well-being of communities in and around the Oranjia Protected Area.

It is an honor and a privilege for me to be part of the Tsimoka team, whose vision is to restore natural ecosystems and their associated services, as well as for local communities to live in symbiosis with nature. Building on its success in the Oranjia PA and its areas of influence, the association is now looking to scale up its conservation efforts in other regions of Madagascar to broaden its impact. However, this can only be achieved by implementing a solid strategy, hence the necessity of drafting this document to guide the association's future.

I am particularly proud of Tsimoka's Strategic Plan 2024–2030. It will enable us to move forward and strengthen our operations, thanks to the commitment of our staff, who work hard every day to meet the many challenges we face. The secret of our strength lies in our unity and our ability to work together for the common good.

I would also like to extend my warmest thanks to all our partners, and especially to the Missouri Botanical Garden, which has supported us over the years, enabling us to become ever more self-sufficient. Their commitment and unfailing support have been essential to the achievement of our objectives and the success of our initiatives.

I hope that these words will inspire you to support our efforts, and thus contribute to the development of our beloved country.

Warm regards,

Jeremie Razafitsalama



EXECUTIVE SUMMARY

Tsimoka is an emerging association based in Madagascar that has taken on the management of the Oronjia Protected Area (PA). This PA is one of the last remnants of dry forest on the island of Madagascar, home to unique and locally endemic biodiversity, such as the Oronjia's wild tuber (*Dioscorea orangeana*), and provides a range of essential ecosystem services, such as the *Delonix velutina* tree for making pirogues.

By working closely with local communities, Tsimoka has managed to significantly reduce the many threats to the PA ecosystem, including land clearance, charcoal production and the collection of wild yams.

Good governance, dry forest restoration and dynamic agroforestry are among the main factors that have significantly contributed to the success of the association's initiatives.

The aim of Tsimoka is to deploy a strategy for the large-scale expansion of these innovative techniques, with a particular focus on the country's dry regions. To achieve this, the association is focusing on three strategic pillars:

1. Continuity in the management and good governance of the Oronjia PA, which underpins its expertise;
2. Strong partnerships with PA managers and environmental organizations to effectively disseminate their techniques;
3. Implementation of ecological rehabilitation, including dry forest restoration in PAs and dynamic agroforestry in the surrounding communities.

As part of this expansion strategy, Tsimoka aims to include ten environmental organizations that will impact over 500,000 hectares of dry landscape and more than 2,000 households living nearby. Through these partnerships, the association's goal is to **accelerate ecological rehabilitation in Madagascar to contribute to biodiversity protection and improve the living standards of local communities.**



INTRODUCTION

In 2017, the local association Tsimoka was established in collaboration with the conservation team of the Oronjia Protected Area from the Missouri Botanical Garden (MBG). Tsimoka manages this protected area, with the ongoing support of the MBG, which maintains its role as official manager of the Oronjia Protected Area with the Ministry of the Environment.

From the outset, Tsimoka has acquired substantial expertise in two areas: forest restoration and dynamic agroforestry in and around the Oronjia PA. As a result, around twenty hectares of dry forest in Oronjia have been restored, leading to a significant increase in the population of crowned lemurs (68 individuals in 2018 compared with 160 individuals in 2022). More than 40 households are currently engaged in dynamic agroforestry around the Oronjia PA.

Based on the success achieved in Oronjia, Tsimoka aims to disseminate dynamic agroforestry techniques across various regions of the island to improve the living conditions of local communities and reduce threats to biodiversity. Currently, more than 800 households across Madagascar practice dynamic agroforestry thanks to the interventions of the Tsimoka Association. This technique enables communities to diversify their production and increase their income by \$20 to \$55 a month.

Ultimately, the association aspires to scale up these two ecological rehabilitation techniques within other dry forest PAs. This strategic document has been developed to support the Tsimoka Association in this process.

CONTEXT

Madagascar, home to rich and exceptional biodiversity, is facing major environmental challenges exacerbated by climate change. Extreme weather events, such as tropical cyclones and prolonged periods of drought, are part of this phenomenon. Recurrent droughts impact local communities, nearly 80% of whom depend on agriculture for their livelihoods.

In addition, deforestation, erosion, soil degradation and poor land management have led to the destruction of almost 90% of original forests. The degradation of ecosystems due to the loss of forests is leading to a reduction in biodiversity and the fertility of agricultural land. This situation is exacerbating food insecurity and poverty in rural communities close to PAs. These communities live on less than 2 dollars a day, a situation that is even more alarming for those living in arid and dry landscapes.

However, research conducted by the Centre for International Forestry Research demonstrates that investing in the restoration of dry forests in Madagascar can bring significant returns for communities. Each dollar invested can generate up to 30 dollars in economic and social benefits. Furthermore, cost-benefit analysis shows that investments in dynamic agroforestry and forest restoration offer attractive economic benefits with rapid returns on investment.

Protecting Madagascar's dry forests is essential for preserving biodiversity, maintaining ecosystem services, boosting climate resilience and preserving local traditions. It is therefore essential to implement initiatives that focus on the well-being of communities at the heart of nature conservation.

^{1,3} The World Bank, Février 2024. Poverty and Equity Assessment, Madagascar | ² Vieilledent et al., 2018

⁴ Centre for International Forestry Research (CIFOR). 2019



THE ORONJIA PA: A LIVING LABORATORY FOR THE TSIMOKA MODEL

Oronjia PA: Effective Co-management with local communities for environmental rehabilitation

Since the 1980s, close collaboration between the Missouri Botanical Garden (MBG) and Madagascar, focusing on scientific expeditions and floristic research, has led to the identification of over 80 priority conservation sites, including Oronjia. As part of its long-term commitment, MBG developed an exit strategy aimed at strengthening the capacities of local communities for sustainable management of these sites.

Following this approach, the Tsimoka Association works with local communities to protect and restore the forests. Co-management with these communities is one of the key elements of the association's success, contributing to the environmental rehabilitation and well-being of the surrounding population.



Oronjia PA: A Wonder of Dry Forest

- The Oronjia dry forest covers a total area of 1,648 hectares. Located in the northernmost part of Madagascar, it is classified as a priority site for the conservation of its biodiversity.
- It is home to 229 plant species and 110 animal species.
- It maintains surrounding water sources, retains sand, and contributes to the protection of downstream ecosystems by preventing erosion and sedimentation.
- It is home to endemic plant species, used by the local population and threatened with extinction:
 - > *Dioscorea orangeana*: a wild tuber from Oronjia, a food source for local communities;
 - > *Delonix velutina*: a species of tree used to make pirogues.

The conservation programs for this site include efforts to protect the *Delonix velutina*, which is overexploited and threatened with extinction. These efforts involve seed collection, seedling propagation in village nurseries, and planting young trees in degraded areas of the PA.



The Tsimoka model developed at Oronjia

The co-management of the Oronjia PA serves as an excellent starting point for developing the technical skills of the Tsimoka team in dynamic agroforestry and dry forest restoration:



Dynamic agroforestry is a sustainable farming method that integrates useful and beneficial indigenous and/or exotic trees into agricultural plots. It offers a variety of profitable and progressive crops as from the third month of its implementation. As a result, farming becomes more resilient, environmentally friendly and income-generating.



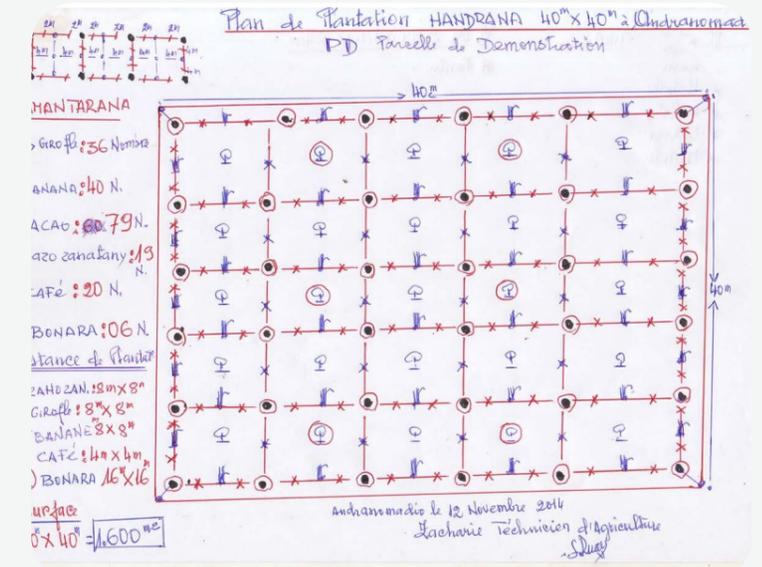
Dry forest restoration involves rebuilding indigenous vegetation in arid or semi-arid areas. It aims to increase dry forest areas through adapted tree-planting practices and management techniques to promote natural regeneration and ecosystem resilience.

1. The Oronjia Protected Area serves as an experimental ground for assessing the effectiveness of various restoration techniques, soil conservation, and biodiversity enhancement. The local Tsimoka team monitors the ecological changes taking place and evaluates their impact on the ecosystem.
2. Through indigenous tree planting techniques, Tsimoka has successfully restored about twenty hectares of forest in Oronjia.
3. Dynamic agroforestry practices outside the Oronjia PA are applied in a controlled setting, requiring close collaboration with local communities. This approach aims to integrate indigenous or exotic trees to improve continuous productivity, especially by restoring essential ecological functions such as water regulation. It relies on a well-defined plan that reflects plantation diversification, their density, and agricultural succession (progressive and continuous agricultural production).
4. The implementation of an effective co-management and participatory governance system with local communities will determine the success of dynamic agroforestry in Oronjia. Additionally, it is crucial to safeguard the land rights of local community areas and conduct an accurate assessment of the food needs of households near the protected area.

In summary, these various experiments and techniques allow for the assessment and improvement of different combinations of crops and trees, as well as the overall resilience of the ecosystem, before deploying them to other sites if necessary.

The goal is to ensure the effectiveness of such techniques and promote sustainable and resilient agricultural practices.

Currently, Tsimoka continues to adopt this approach in more than ten regions.



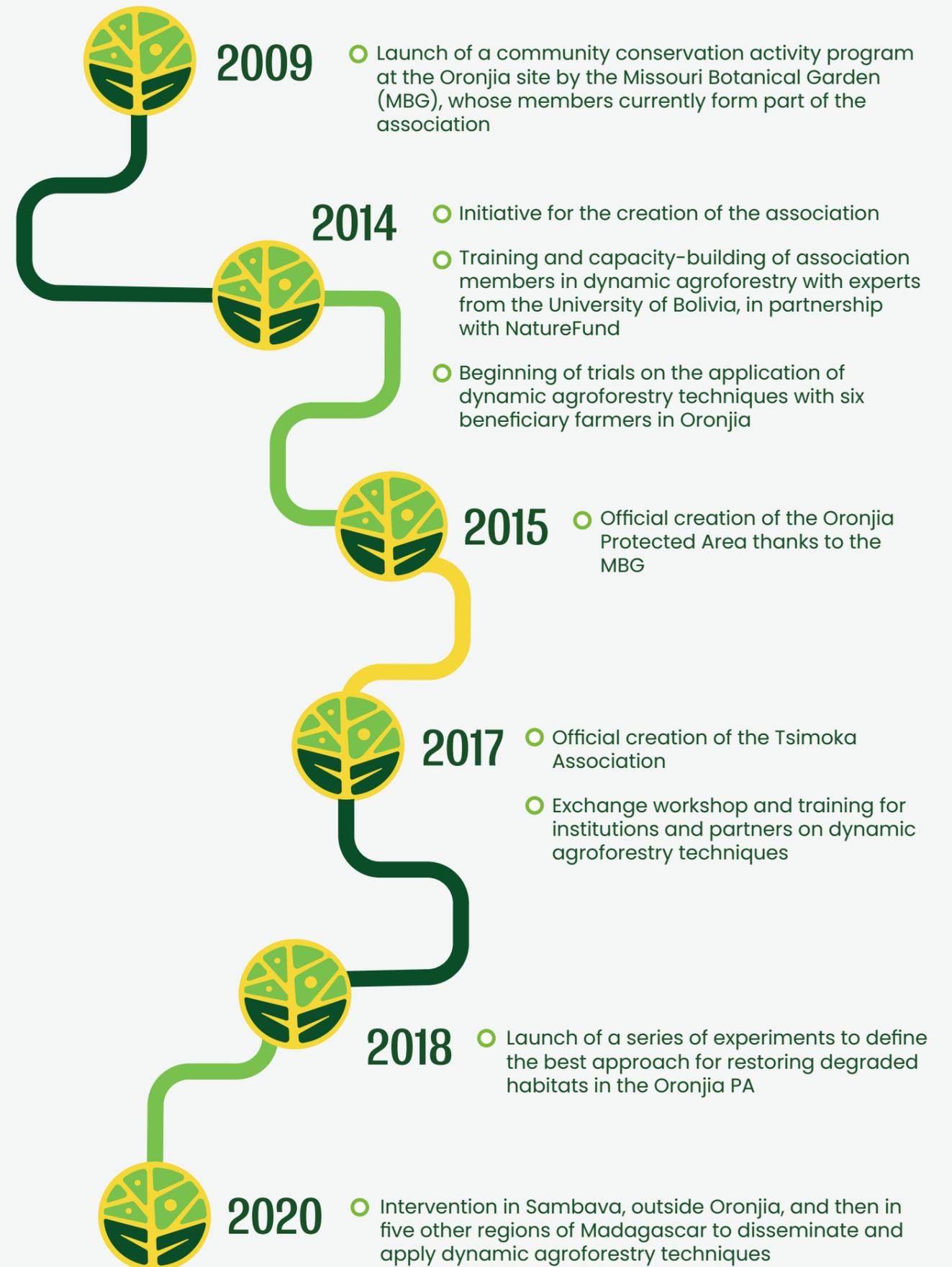
Finalizing the farmers' plan during the Agroforestry training course

Oronjia PA :
the experimental
ground for dynamic
agroforestry and dry
forest restoration →

**Dynamic agroforestry
dissemination regions** ↓



Tsimoka association: a timeline



ORGANIZATIONAL STRENGTHS AND SUCCESSES OF TSIMOKA

Tangible results of biodiversity conservation in Oronjia

The association has managed to maintain and even strengthen the successes of its interventions since its creation:

- All identified threats have been significantly reduced. For example, the number of charcoal kilns has been significantly decreased from 52 in 2012 to zero in 2022 (Table 1).
- Forest restoration is progressing. This regeneration can be demonstrated by the total basal area of tree trunks per hectare, which, in a series of replicated plots, has increased from 16.1 m² in 2012 to an average of 18.32 m² over the past four years, indicating a balanced and healthy forest stand.

Tsimoka has succeeded in drastically reducing the threats, in particular charcoal burning and the collection of wild yams. These threats are no longer an issue in the PA.

— A funder

Table 1 Evolution of pressures in the Oronjia PA since the Tsimoka intervention

Pressure indicators in the Oronjia PA	2017	2018	2019	2020	2021	2022
Number of charcoal kilns	4	3	0	15	2	0
Density of wild yam (<i>Dioscorea</i>) collection pits	0.98	0.89	0.82	0.15	0.14	0.09
Clearing for cultivation (in ha)	0.15	0.94	0.67	0.34	0.25	0.075
Number of fire points	0	0	0	0	1	0

Tangible results have been achieved in informing and documenting species conservation.

— Un partenaire

Operational reliability of Tsimoka

- As a reliable manager and expert, the MBG has facilitated access to funds and vouched for the association, particularly in financial management, procedural manuals, and partnership management.
- Under the effective leadership of the Chairman, management decisions were taken with the communities, based on the results of ecological monitoring conducted by local agents.

⁵ The basal area is an indicator of competition between trees and a measure of stand quality. More broadly, it provides information on the general condition and health of the forest stand.

Benefits for local communities through dynamic agroforestry practices

- Starting from the third month of applying dynamic agroforestry, agricultural production begins to emerge. Households can thus benefit from a regular flow of food and additional income.
- This agricultural method is popularized:
 - > Agroforestry was developed in collaboration with 40 beneficiary farmers living around the Oronjia Protected Area and more than 800 other beneficiaries across the country.
 - > Dynamic agroforestry has allowed each household to diversify its diet and generate \$55 per month, compared to \$20 previously.

Success story in dynamic agroforestry:

- A family living on the outskirts of the Oronjia PA experienced a profound transformation in their livelihood. In 1995, water was scarce, and the surrounding population had to travel 3 km to collect water.
- As of 2014, when this family began practicing dynamic agroforestry, a series of positive changes occurred, such as the availability of agricultural products and improved soil fertility.
- In 2019, access to water was restored, enabling the development of rice paddies and wells once more.
- This family has also taken up fish farming.

The success of dynamic agroforestry is one of the cornerstones of the creation of the Tsimoka association.



TSIMOKA'S ORGANIZATIONAL CHALLENGES AND WEAKNESSES

To remain independent and effective, Tsimoka must establish clear governance, strengthen human resource skills, and enhance external communication in adequation to its scale-up strategy.



Tsimoka receives numerous requests for collaboration to promote dynamic agroforestry in other regions of Madagascar. However, the association needs to be strategic in guiding its intervention choices regarding approaches, targeted partnerships, and key areas.



There is a lack of clarity in the separation of powers between the decision-makers at the MBG and the executive team at Tsimoka. An exit strategy defining the roles and responsibilities of each party is necessary to ensure a smooth transition towards the association's independence.



Currently, Tsimoka lacks qualified human resources to achieve the desired scale-up of its programs.



Tsimoka lacks an external communications strategy:

- Absence of a functional website, limiting the association's online visibility;
- Lack of coordination in information dissemination, absence of social media presence, and irregular sharing of the association's updates.

OPPORTUNITIES

Scaling up Tsimoka's expertise: disseminating ecological rehabilitation techniques

- Tsimoka has acquired proven expertise in ecological rehabilitation, a highly sought-after skill for the conservation of Madagascar's dry forests.
- These dry forest restoration and dynamic agroforestry techniques play an essential role, not only in conserving these ecosystems, but also in supporting the livelihoods of the surrounding communities. By sharing and promoting these approaches, Tsimoka has the opportunity to reinforce its impact in terms of the conservation and sustainable management of the country's natural resources, while contributing to the food security of local populations.

Diversified funding sources ranging from climate change mitigation to income generation

- Tsimoka contributes to the fight against climate change by offering solutions adapted to ecosystems:
 - > Restoration of degraded dry forests in and around protected areas, and in community conservation areas;
 - > Dynamic agroforestry practices with farmers and local communities with the necessary land and resources.
- These initiatives provide Tsimoka with a variety of sources of funding, from biodiversity conservation to the promotion of income-generating activities and adaptation to climate change.

EXTERNAL THREATS

Administrative challenges in addressing offenses affecting the protection and management of the Oronjia PA

- The Oronjia forest, which plays a crucial role in local economic activities and livelihoods, faces various pressures such as charcoal production and agricultural clearing. These threats compromise the conservation of biodiversity and natural resources. Additionally, delays in addressing offenses and gaps in regional governance hinder forest protection and strain the efforts of the Oronjia PA communities and the Tsimoka team.

Climate challenges affecting ecological rehabilitation

- Climatic changes threaten the ecosystems undergoing restoration. Extreme weather events, such as prolonged droughts and violent storms, have increased 5-fold over the last 50 years.



VISION

In Madagascar, natural ecosystems are restored, and local communities live in harmony with nature.

MISSION

Accelerate ecological rehabilitation in Madagascar to contribute to the protection of biodiversity and the improvement of living standards for local communities.

VALUE PROPOSITION

Tsimoka adopts an innovative and proven approach to ecological rehabilitation in Madagascar, focusing on dynamic agroforestry and forest restoration.

PROBLEM STATEMENT

The destruction of natural habitats leads to the loss of biodiversity and ecological functions on which local communities depend.

ORGANISATIONAL VALUES

Collaboration

Through effective collaboration with local stakeholders, environmental organizations, and protected area managers, we are making progress towards our shared mission.

Future generations

We work in ecological rehabilitation to ensure the well-being of future generations through our actions.

Transparency

We operate with complete transparency in all our decisions.

Commitment

We are committed and responsible in fulfilling our mission.

TSIMOKA INTERVENTION PILLARS

- Guarantee the management and good governance of the Oranjia PA with local communities, to continue experimenting and innovating with dynamic agroforestry techniques and dry forest restoration.
- Develop strategic partnership with PA managers and community conservation areas to scale up these two techniques.
- Ensure ecological rehabilitation to restore ecological functions.

THEORY OF CHANGE

Through co-management with local communities, Tsimoka has begun experimenting with and developing ecological rehabilitation in and around the Oronjia PA. This has led to short-term effects in dynamic agroforestry within natural landscapes and progressive results in dry forest restoration.

The Oronjia PA plays an essential role in showcasing Tsimoka's successes and learnings in developing these two techniques, and serves as a site for ongoing experimentation aimed at improving the protocols established for ecological rehabilitation.

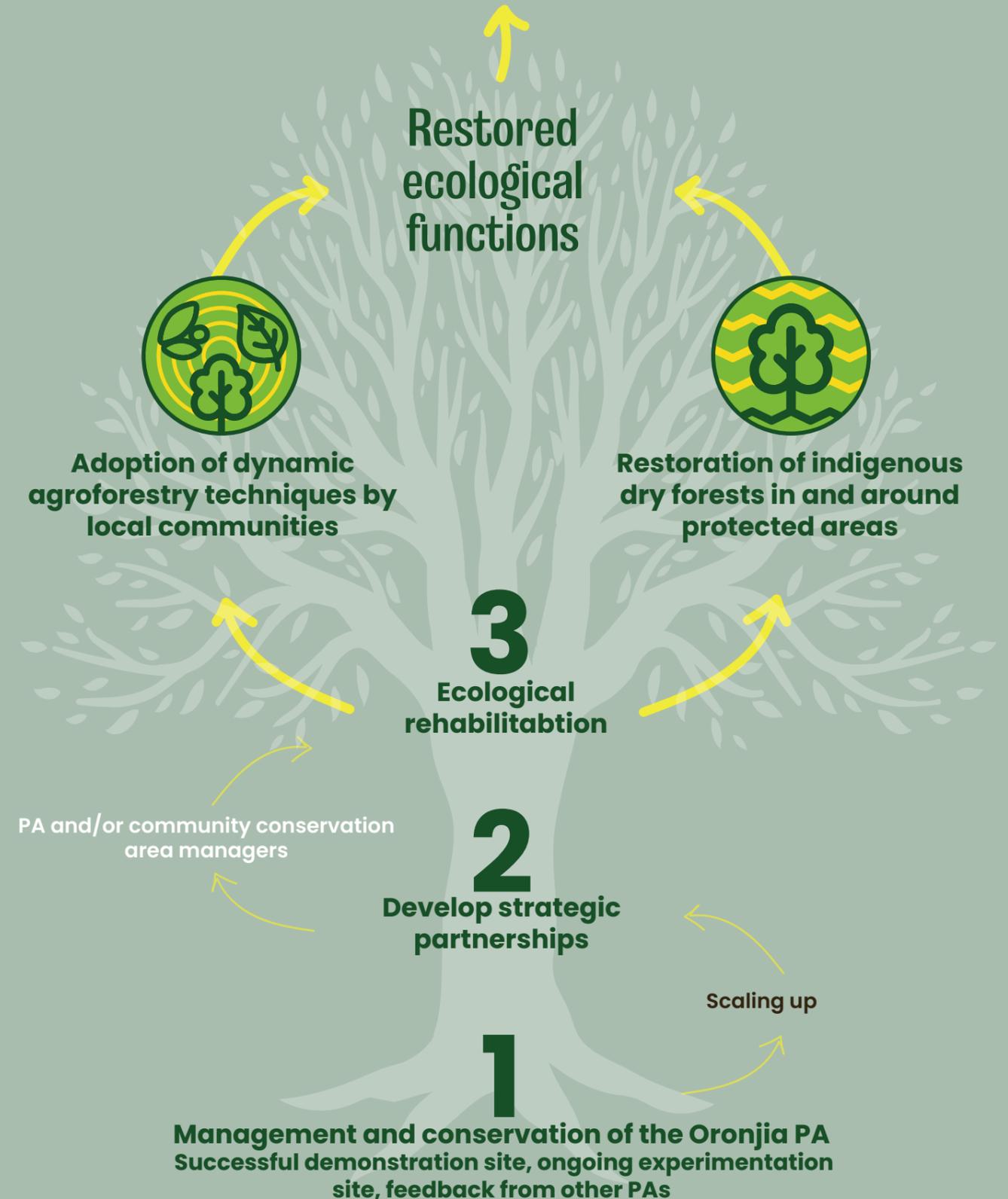
To accelerate the rehabilitation of ecological functions in Madagascar, the association envisions a large-scale expansion strategy.

This strategy involves creating partnerships with PA managers and environmental organizations, with a particular focus on dry regions with dry or hot ecosystems. These managers are encouraged to implement both ecological rehabilitation techniques.

The integration of these two approaches by PA managers leads to optimal results in rehabilitating ecological functions, contributing to the improvement of both biodiversity and the living conditions of local communities.



Improved biodiversity and living standards of local communities





GOALS AND KEY ACTIONS

Goal 1

Share dry forest restoration techniques in Madagascar’s PAs to improve the state of biodiversity and ecosystem services for local communities.

Indicators



Mobilize 10 PA managers



Objectives

- 1 Create partnerships to replicate the Oranjia dry forest restoration protocol on other sites according to Tsimoka’s criteria, and strengthen existing collaborations and partnerships.
- 2 Train interested site managers in the protocol, by updating the methods used and appropriate, and by conducting training sessions for PA managers.
- 3 Ensure the monitoring and support of partners’ restoration activities, updating or adapting monitoring protocols, developing a monitoring plan, and providing advice and recommendations to partners.

Goal 2

Promote dynamic agroforestry practices among the communities surrounding the PAs.

Indicators



2,000 farmers



25 organisations or protected area managers



+50% or +100%
increase in revenue increase in agricultural products

Objectifs

- 1 In collaboration with PA managers or community conservation area managers, map stakeholders and actors to secure Tsimoka’s interventions in Madagascar.
- 2 Create and strengthen collaborations with local communities surrounding the PAs for the introduction of dynamic agroforestry, by identifying local communities, conducting a preliminary audit of potential local communities, and formalizing collaboration with the communities.
- 3 Provide training on dynamic agroforestry to communities and farmers, updating the protocols and methods used and appropriate.
- 4 Accompany and monitor the beneficiaries to achieve better results by updating the community monitoring protocols (through data collection and verification of the application of techniques), developing a monitoring plan, and providing advice and recommendations to the beneficiaries.

Partnership strategy and success criteria for Tsimoka’s interventions

Tsimoka’s interventions are based on partnerships with key stakeholders, such as PA managers, local associations, and environmental organizations. The association works closely with regional authorities and local communities to secure land rights and employs specialized consultants to improve its methods through ecological research.

- The success and security of Tsimoka’s interventions are based on the following criteria:
- Governance Structure: partners should have either Natural Resource Management Transfer agreements with local communities or temporary or permanent decrees for PAs or management delegation for community conservation areas. Partners should have a clear governance structure within their organizations.
- Prior to any intervention, Tsimoka ensures the following:
 - > Assessment of household food needs, consideration of timber or firewood needs, and ideally cash crops;
 - > Land security, avoiding land conflicts, and ensuring legal protection of the land through customary or legal rights.

Goal 3

Continue experiments and innovations in the management of the Oronjia PA to improve ecological rehabilitation techniques.

Indicators

Through research activities at partner sites and Oronjia, Tsimoka will develop a new protocol that is more cost-effective and even more efficient.



Objectives

- 1 Ensure the management and conservation of Oronjia to maintain and continue on-site research and experiments through co-management with the community and local partners (ecological monitoring, community development, PA control and surveillance), ecological rehabilitation and reforestation, information, education and communication with communities, and pressure management.
- 2 Continue research into new techniques, by capitalizing on the knowledge acquired in dynamic agroforestry and dry forest restoration (from partners and Oronjia), by conducting new experiments at the Oronjia site, and updating protocols and other tools in place.
- 3 Improve Tsimoka’s technical skills by assessing Tsimoka’s competency needs, providing training to teams, and updating and refreshing Tsimoka’s technical skills.

Goal 4

Set up a robust monitoring and evaluation system to communicate results on ecological rehabilitation.

Indicators

By 2030, a database of Tsimoka’s achievements will be available.



Objectives

- 1 Implement a monitoring, evaluation, and learning system by creating a database of partners and beneficiaries and analyzing the data for adaptive management and continuous improvement.
- 2 Consolidate the results of experimentation and experience at Oronjia and other sites
- 3 Communicate the techniques of dynamic agroforestry and dry forest restoration and the conservation results of Oronjia by establishing a communication strategy, revitalizing Tsimoka’s external communication channels, and publishing Tsimoka’s results in scientific journals and mass media.



ORGANIZATIONAL NEEDS FOR IMPLEMENTATION

Budget and fundraising

Tsimoka faces a lack of funds necessary to ensure its operations, compounded by donors' reluctance to support a relatively young association. To overcome these challenges, the association plans to strengthen its communication by highlighting its successes and unique strengths that set it apart from other organizations. Additionally, the association intends to develop a fundraising strategy to cover its operational costs and achieve its mission.

It also plans to raise funds through partnerships with other PA managers who wish to implement their ecological rehabilitation techniques. By adopting such measures, Tsimoka aims to convince donors of the effectiveness of its actions and the value of collaborating with it.

Budget projection table for 2024–2030 to achieve the Tsimoka mission

Year	2024	2025	2026	2027	2028	2029	2030
Employees	\$45,751	\$96,077	\$105,685	\$116,253	\$127,878	\$140,666	\$154,733
Programmes	\$70,327	\$124,444	\$207,000	\$268,000	\$292,000	\$350,000	\$400,000
Administration	\$14,444	\$21,778	\$24,889	\$26,222	\$27,556	\$27,556	\$30,000
Capital investment	\$42,222	\$20,000	\$22,000	\$22,000	\$21,778	\$22,000	\$22,000
Total	\$ 172,745	\$262,299	\$359,573	\$432,475	\$469,212	\$540,222	\$606,733

Organizational structure

Tsimoka faces various organizational challenges that impact internal communication, role clarity, and decision-making structure. Priority will be given to clarifying the association's governance towards the MBG in order to improve management systems and internal procedures.

To clarify hierarchical relationships and responsibilities, Tsimoka's organizational chart will be updated. In addition, the recruitment of Human Resources and Monitoring & Evaluation managers is being considered, or alternatively, the reinforcement of the skills of the current team, with a clear allocation of responsibilities.

In the field of communications, a manager will be hired to ensure effective management of the association's internal and external communications.



Communications

- Tsimoka will implement a robust communication strategy to effectively address communication needs. This strategy aims to increase the association's visibility, regularly inform stakeholders, and intensify the search for new strategic partners.
- As a priority, Tsimoka plans to revitalize its website to share its activities and successes.

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This strategic plan was developed with the facilitation of Maliasili Initiatives, and the support of the UK government through the Darwin Initiative Fund.



