



## Key messages

**Baobab commercialisation improved women's livelihoods:** The creation of Baobab Products Mozambique (BPM) transformed an informal baobab trade into a structured value chain, offering women collectors higher prices and reliable market access.

**Women's empowerment and leadership increased:** More than 3,000 women collectors have been trained and organised into networks and the Baobab Collectors Association, strengthening women's participation in decision-making, leadership, and business governance.

**Income from baobab strengthened household resilience:** In climate-vulnerable regions with limited farming opportunities, baobab harvesting has become a critical seasonal income source, helping families cope with droughts and climate shocks.

**Social norms and gender relations are gradually shifting:** Through training, literacy programmes, and community engagement, women participants now have greater control over income and household decisions, with increased respect and support from men.

**Sustainable harvesting supports climate resilience:** The value chain promotes organic certification, sustainable harvesting practices, and forest conservation, linking women's economic empowerment with environmental protection and climate adaptation

**Authors:** Andrew Kingman

## Advancing gender equity and climate resilience through baobab fruit value chains

Across rural Africa, baobab fruit has long contributed to livelihoods, particularly for women. This case study draws on more than a decade of work by the Micaia Foundation and its partnership with Baobab Products Mozambique and examines how the commercialisation of baobab fruit in northern Mozambique has strengthened livelihoods, enhanced women's agency, and contributed to climate resilience.

### Baobab value chains and women's empowerment

Nature contributes greatly to the livelihoods and wellbeing of communities. It provides non-material security like sense of place, learning and inspiration, and also offers a variety of ecosystem services, such as regulation of air quality, climate, while offering protection from climate hazards. It also offers material contributions like food, fuel and water. Non-timber forest products (NTFP) play an important and often critical role in the lives of rural people, providing medicine, food and sources of income. In many parts of Africa, it is women who are responsible for NTFP harvesting and primary processing. Mostly, NTFP trade is conducted informally and has low value in commercial terms, so that women's role in the NTFP market and their income from the products are limited.

This reality, coupled with the growing international market for natural products for health and wellness industries, has stimulated donor- and NGO-led investments in NTFP value chains with a view to creating more value and empowerment opportunities for the women involved. One such example is baobab and baobab associated products.

Baobab is an African 'superfruit', one that has been known by local people for centuries as a source of food, medicine and fibre used for making cords and crafts. Baobab trees produce large fruits, with a powdery pulp and kidney shaped seeds. Since 2000, the naturally dry and highly nutritious pulp produced from the fruit, and the cosmetic oil pressed from its seed, have been available on the world market. In recent years, interest and demand for baobab have grown<sup>1</sup>, with many new suppliers from Africa emerging, hundreds of products launched and growing evidence of efficacy in both medical<sup>2</sup> and cosmetic applications<sup>3</sup>. While still available as a 'superfood' supplement, the powder is increasingly used as an ingredient in food manufacturing.

Although baobab trees are found in many areas of Mozambique, the Micaia Foundation's work focuses on the north of Manica Province, in Guro and Tambara districts. Baobab is one of the few sources of seasonal cash income in this dry area, where food production is limited. When Micaia started working in this area in 2012, the only market for baobab was informal traders from neighbouring countries, particularly Malawi, who avoided the formal system and paid very low prices to the women collecting baobab pulp. Micaia saw an opportunity to boost the local baobab trade by supporting access to regional and international markets and, in doing so, transforming the lives of hundreds of women.

In 2014, Micaia created Baobab Products Mozambique Ltd (BPM), the first Mozambican company to commercialise baobab. BPM had its first full season of operations in 2015, buying 60 tonnes of baobab fruit pulp and seed. According to internal BPM records, despite a very poor harvest caused by late rains in 2025, BPM still managed to buy 300 tonnes of fruit from local women suppliers. In 2026, the company aims to buy 600 tonnes of pulp and seed, enough to produce at least 60 tonnes of powder, 75% of which will be exported, resulting in higher revenue, resulting in higher revenue flows for women harvesters. Since 2016, BPM's baobab powder and oil have been certified organic, and the company has become one of the leading producers of high-quality baobab powder in Africa.

Careful measures have been taken to ensure that the expansion of baobab harvesting is sustainable. Collectors are trained to gather only larger fruit, leaving small and damaged fruit in the forest where the pulp will be eaten and seeds left to germinate. With the growing trade, BPM is now engaged in discussions with provincial authorities about collaborating on a baobab planting programme in community-managed forest zones designated for conservation, where agriculture will be excluded. BPM and Micaia have also established a monitoring programme, using 51-hectare plots to track patterns in fruit availability and gather data on land-use change in the context of climate change.

The commercialisation of the Mozambican baobab value chain by BPM occurred alongside, and built upon, donor-funded work by Micaia Foundation aimed at maximising opportunities for women collectors and ensuring they are environmentally sustainable and durable. This is important because when commercialisation and expansion of a value chain take place, the role and opportunities for women may change, as has been seen in the shea nut industry in many countries<sup>4</sup>.



*Weighing the Baobab fruit, Photo credit: Micaia*

Men who previously dismissed the importance of NTFP collection and processing become more inclined to seize the opportunity and claim the associated rewards.

While women may still secure basic financial gains – such as better prices and more reliable market access – this alone does not guarantee economic empowerment. True empowerment requires transformation in the opportunities women can claim for personal, social and economic growth. This includes greater influence in household decision-making, not only financial but also social, such as decisions about girls' education; having their voices heard in community affairs; and the freedom to pursue learning and work opportunities outside the home. This broader understanding of women's empowerment, embedded within efforts to build climate-resilient communities, has underpinned Micaia Foundation's work in the baobab value chain.

The importance of building greater resilience cannot be overstated. The dry northern zone of Manica Province is highly susceptible not only to droughts but also to other extreme weather events such as storms and cyclones. In an area where food production is already strained by climate and soil quality, increasing climate volatility further intensifies burdens and heightens vulnerability. Women, who are responsible for feeding their families, are particularly affected.

In this context, diversification of economic livelihoods, primarily through expanding the baobab value chain, has emerged as a key strategy for building resilience.

At the same time, this approach promotes greater awareness of the need for sustainable natural resource management. Such awareness is critical in tackling the widespread forest clearing driven by illegal logging and the expansion of family farms.

## An inclusive business model for women

BPM was set up to create a fairer, more lucrative market for the women who collect and sell baobab fruit and pulp each year. The company deploys several strategies as part of its approach. First, it ensures that despite growth in the value chain and increasing financial returns, women remain squarely at the centre of the business. It does this by only buying from women and by ensuring that women have the knowledge and operational systems to meet the requirements of the commercial value chain. These requirements include maintaining strict fruit quality standards (only intact fruit with no cracks to reduce pest risk), following organic handling practices to avoid contamination, and keeping clear records so fruit can be traced back to the source village if any issues arise.

In 2025, BPM trained and registered 3,298 women as collectors of baobab fruit. While participation is open to all women, BPM – working in collaboration with Micaia – has prioritised outreach to women who are particularly vulnerable to the impacts of climate change. Notably, nearly 20% of these women are heads of household, many of them widows.

Annual training sessions equip women with essential knowledge on sustainable harvesting practices and the core requirements of the organic certification system. As part of the certification process, Ecocert of South Africa conducts yearly audits where dozens of collectors from selected villages are interviewed to assess their understanding of organic harvesting and fruit-handling standards. This rigorous process forms the foundation of BPM's business model.

The second strategy adopted by BPM is the establishment of a network of Lead Collectors. These women, chosen by their peers, serve in each of the current 35 villages where BPM purchases fruit. They play a vital coordinating role, supporting training and learning among collectors and ensuring the smooth operation of the harvest and buying process. Crucially, their responsibilities include supervising the weighing, receipting and payment procedures. For this reason, it is essential that each group of women has a Lead Collector they trust.

The third element of BPM's strategy is to pay what amounts to a 'fair trade' price for whole baobab fruit. Unlike the informal trade – where women extract pulp and seed and are paid by volume – BPM purchases whole fruit directly from individual women and pays by weight. This represents two significant shifts: recognition of the value of whole fruit; and a transparent, measurable system of payment. BPM also offers a substantially higher price than informal traders. Informal traders typically pay around 50–75 meticaï for a bowl of pulp and seed weighing about 10–11 kg, while BPM buys whole fruit at around 9 meticaï per kilogram. As roughly 20–22 kg of fruit are needed to produce that amount of pulp and seed, this equates to about 180–200 meticaï for an equivalent quantity, meaning BPM's effective price paid directly to women collectors is around two to three times higher.

An internal 2019 survey conducted by Micaia and BPM revealed that 70% of women collectors considered the annual baobab harvest and sale increasingly important, citing improvements such as the role of Lead Collectors and BPM's buying agents, the use of scales, annual training and registration, and the higher price. By 2025, a follow-up survey found that 100% of respondents viewed the harvest as increasingly important and vital to their livelihoods. This growing importance may reflect the expansion of BPM's operations since 2019, the rise in prices, or the broader context in which climate volatility is making agriculture increasingly precarious. Accordingly, the sale of baobab fruit has become a critical source of resilience for rural women.



*Weighing the baobab fruit, photo credit: Micaia*



Women carrying baobab harvest, photo credit : Micaia

## Transforming the wellbeing of women collectors

Beyond building a core business, perhaps the most effective strategy of transformation has been BPM's partnership with Micaia Foundation. This has led to significant change in socio-economic dynamics at a household level;

The baobab-rich communities of Guro and Tambara districts are not only economically poor and highly vulnerable to climate change, but they are also extremely socially conservative. In these communities, polygamy is common – men often have four or five wives – and child marriage, though illegal in Mozambique, remains prevalent. When Micaia first began engaging seriously with the baobab value chain in 2014, it became clear that women faced significant challenges. Men frequently appropriated the money women received from traders and attempts by women to resist or challenge this practice often provoked violent responses.

Transforming such social and cultural systems takes time. While BPM focused on building the baobab value chain and securing customers, Micaia worked with women collectors and their communities on a range of individual and community development issues. Between 2018 and 2022, Micaia implemented a capabilities programme that facilitated non-formal learning on a wide range of topics, including domestic violence, polygamy, family nutrition and environmental health. Women in each village were trained to lead the sessions, initially with baobab collectors and later expanding to the wider community. Discussions were rich and engaging, often drawing men on the periphery of the circle to listen in.

Building on this foundation, Micaia also introduced literacy and numeracy classes. At the outset, fewer than 5% of women could write their names and very few understood written numbers, relying on family members to confirm the figures.

Today, nearly all registered collectors can write their names, and many are able to read receipts issued by BPM's agents after fruit is delivered and weighed. The capabilities programme was also critical in positioning women at the forefront of community-level natural resource management planning. Given the contribution forests provide for diversifying livelihood options, women are now actively challenging leaders to halt the practice of opening new fields by cutting and burning forest areas, and they are eager to take up opportunities to learn about and adopt climate-resilient farming methods.

## Enhancing collective voice and engagement with power

Micaia also facilitated the German development agency, GIZ, to establish and support the development of the Baobab Collectors Association (BCA). Alongside the Lead Collector system, each village has a representative who participates in this legally registered association, which now serves as the collective voice of women baobab collectors across the two districts.

BPM is committed to working with this emerging association. It took several years to get the Association ready for registration – on the one hand reflecting low levels of literacy, and on the other the social pressures on women to remain in the home as subservient wives and mothers. In due course, BCA is set to receive a 20% ownership stake in the company. In the meantime, BPM and the Association collaborate closely in planning the annual harvest, and BPM is developing a formal benefit-sharing agreement to support the Association's operations and core functioning.

The idea of women independently running an association covering two districts, travelling on their own to meetings and training workshops, was challenging for many men to accept. To enable such participation, Micaia worked closely with male community leaders, explaining the purpose and structure of training and meetings and securing their support. Women were encouraged to bring their youngest children to residential training sessions, which reassured husbands who felt their wives would be less susceptible to impropriety in this external setting. Wherever possible, women trainers and facilitators were engaged.

The Baobab Collectors Association serves not only as a platform for women to engage with and participate in the operations of BPM, but also as a representative body through which they are increasingly able and willing to advocate for their rights and interests. In one famous case, a corrupt local government officer attempted to impose a 'sack tax' (equivalent to 15 cents) on every sack of fruit bought by BPM in the area controlled by the officer. BPM refused to pay, citing its annual payment of taxes to the provincial government that gave it the right to collect the harvested fruit, as prescribed by law.

The local government officer said that she would block BPM from buying fruit in the area. Hearing this news, the Association's representative in the village sent messages to her peers in all the villages in the affected area. The following day, all the representatives arrived in the village and converged on the local government office, where they staged a 'sit-in' and refused to leave until the officer withdrew her demand for a 'sack tax'.

In time, the association will own 20% of BPM, giving women, through their representatives, an active role in the company. In the meantime, BPM is discussing a benefit-sharing agreement and a package of support to sustain the Association's core functioning in 2025-2026. BPM's management team also meets with the Association's leadership to plan the annual harvest and report on market conditions, with information communicated back to all collectors through the Lead Collector network. In these ways, the women are directly involved in the planning and implementation of BPM's field operation around the annual baobab harvest.

## Shifting roles and responsibilities

After ten years, surveys by Micaia and independent researchers show the impacts on women of their involvement in a commercial value chain for baobab on fair and equitable terms, supported by broader empowerment measures. There were three main findings:

1. Almost all collectors acknowledge that the local perception of baobab collection has changed since BPM began buying fruit, and that as collectors they feel more respected.
2. Within households, women report being consulted more often on decisions such as family investments and household priorities.
3. A BPM survey in 2019 found that 95% of women were involved to some extent in decisions about how their income was used. A repeat survey conducted on a larger sample in 2025 found that 100% of women reported being involved.



Fruit harvesters waiting to transport the fruit, photo credit : Micaia

**Table 1: Women's role in decision-making since BPM entered the market**

Role in decision-making over use of money	Number 2019	Percentage 2019	Number 2025	Percentage 2025
Woman with sole responsibility	28	44.5	30	25
Responsibility shared with husband	32	50.8	90	75
Husband with sole responsibility	3	4.7	0	0

**Table 2: Changes in decision-making roles since BPM entered the market**

Women’s role in decision-making over use of money	Number 2019	Percentage 2019	Number 2025	Percentage 2025
No change since start of trade with BPM	35*	56.5	0	0
More involved	26	42	120	100
Less involved <sup>3</sup>	1	1.5	0	0

*\*It is worth noting that of the 35 women who in 2019 reported no change in decision-making, 26 were already controlling their own money.*

In 2025, 89% of women reported retaining more money than in the past, despite the growing value of the trade. This is very important because the value of the trade has increased so much since BPM entered the market. When the trade was very small and the returns to collectors were limited, some men were not interested. Now, however, with much higher returns, men have taken note. The fact that so few women are losing out despite the growth in trade volume and returns highlights the increasing agency of the women, reflected in their ability to make strategic economic decisions, negotiate better market terms, control income, and influence trade networks and household livelihoods.

Survey results also indicate changing attitudes among men. In 2019, 46% of married women reported improved behaviour from their husbands. By 2025, this figure had risen to 90%.

Most women (17 out of 28 comments) talked about being encouraged by their husband to participate in the baobab trade. While this may appear a modest shift, the fact that trading with BPM means the women hold the contracts and earn income directly, suggests men’s growing acceptance of their wives’ changing roles. A few women even talked about how their husband’s behaviour was changing outside the household, with one woman linking the extra money from baobab with the fact that her man had stopped drinking.

## Emerging learning informing future work

**Access to markets and improved economic livelihoods is not sufficient on its own to transform gender relations.**

As the baobab value chain expanded, both women and men stood to benefit. In the early stages of commercialisation, men sometimes benefitted more than women, particularly where existing power relations within households remained unchanged. Some women found ways to retain a portion of their earnings, but it was more common for husbands to take control of the income. As the scale and value of the trade grew, however, this situation began to change, highlighting that market access alone is not enough, but can create conditions for change when combined with other interventions.

**Work on creating economic livelihood opportunities needs to go hand in hand with investments in building confidence and encouraging agency.**

Micaia Foundation’s capabilities programme played a critical role in enabling women to better understand their rights, reflect collectively on social norms, and begin to challenge the cultural status quo.

This programme augmented improved economic livelihoods with social and learning opportunities, including literacy and numeracy, which enabled women to engage more confidently with markets, institutions and their own households.

Importantly, these changes were neither rapid nor uniform; progress varied across communities and households, underscoring the need for sustained engagement.

**Transformation in gender relations, especially in deeply conservative communities, takes time.**

In Guro and Tambara districts, resistance to change was often strongest among older men and women. Evidence from surveys and community engagement suggests that the most visible shifts in household decision-making and mutual respect tended to occur among younger families. At the same time, there are clear examples of women using their increased confidence and collective strength to take a stand on issues such as early marriage and environmental degradation. These experiences point to the importance of long-term approaches and realistic expectations when working on gender equality in such contexts.

**Men cannot and should not be sidelined in efforts to transform gender relations.**

Neither BPM nor Micaia has sought to exclude men from involvement in the baobab value chain. Over time, many men – particularly younger men – have become more supportive of their wives’ participation, assisting with tasks such as transport and recognising the contribution of baobab income to household wellbeing. In the context of a labour-intensive, seasonal activity, baobab harvesting has increasingly become a family endeavour. Ensuring that women remain in the lead, both economically and organisationally, while engaging men constructively, has helped reduce conflict and foster greater acceptance of women’s changing roles.

**Women are acquiring market knowledge and business leadership skills, not just getting a fair price for their produce.**

Although it remains a work in progress, BPM’s commitment to involving women collectors more deeply in its operations and governance has created new leadership opportunities. Women have gained a deeper understanding of how the value chain and markets function, and some have participated in visits to BPM’s production facilities and in national and international workshops, where they have shared their experiences directly.

This form of empowerment complements personal confidence and economic gains and is central to sustaining longer-term change.



Women collecting baobab fruit under the tree, photo credit : Micaia



Baobab fruit, photo credit : Micaia



Weighing the baobab fruit, photo credit : Micaia

## The way forward

BPM will continue to look for opportunities to expand markets for baobab powder and oil, both internationally and in Mozambique. The inclusive nature of the business, and its social and environmental impacts, are critical to success in an increasingly competitive market.

The partnership between BPM and Micaia Foundation has been central to securing gains for women beyond improved prices alone. Such partnerships should be encouraged and supported by donors and investors. Micaia Foundation will continue to lead national advocacy efforts to influence the implementation of Mozambique's Forest Law, ensuring stronger community engagement in NTFP value chains and greater benefits for local communities.

Despite important gains, gender equity and social inclusion are far from achieved. A long-term perspective and sustained commitment remain essential, and institutions and policies should align to support long-term action on gender equality in the context of developing climate resilience.



*Fruit harvesters waiting to transport the fruit, photo credit: Micaia*

**Author:** Andrew Kingman (Micaia Foundation)

**Reviewers:** Lucia Scodanibbio (CDKN Learning Lead), Mairi Dupar (CDKN Senior Technical Advisor), Nadia Sitas (CDKN EbA Lead) and Patricia Bamanyaki (CDKN GESI Lead)

**Editors:** Cris Robertson (CDKN Knowledge Translation and Outreach Lead) and Robin Heuermann (CDKN Knowledge Translation Project Manager)

## Endnotes

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<sup>1</sup> Meinhold, K. and Darr, D. (2022) 'Keeping up with rising (quality) demands? The transition of a wild food resource to mass market, using the example of baobab in Malawi', *Frontiers in Sustainable Food Systems*, 6, p. 840760. doi: [10.3389/fsufs.2022.840760](https://doi.org/10.3389/fsufs.2022.840760).

<sup>2</sup> Badu, M., Thompson, P.T. and Boamah, V.E. (2025) 'In vivo anti-inflammatory activity, acute toxicity profiling, and sub-acute toxicity profiling of extracts from the fruit pulp and seeds of African baobab (*Adansonia digitata* L.)', *Scientific African*, 27, p. e02615. doi: [10.1016/j.sciaf.2025.e02615](https://doi.org/10.1016/j.sciaf.2025.e02615).

<sup>3</sup> Komane, B.M., Vermaak, I., Kamatou, G.P.P., Summers, B. and Viljoen, A.M. (2017) 'Beauty in Baobab: a pilot study of the safety and efficacy of *Adansonia digitata* seed oil', *Revista Brasileira de Farmacognosia*, 27, pp. 1–8. doi: [10.1016/j.bjrp.2016.07.001](https://doi.org/10.1016/j.bjrp.2016.07.001).

<sup>4</sup> Elias, M. and Arora-Jonsson, S. (2017) 'Negotiating across difference: gendered exclusions and cooperation in the shea value chain', *Environment and Planning D: Society and Space*, 35(1), pp.107–125. doi: [10.1177/0263775816657084](https://doi.org/10.1177/0263775816657084).

### About CDKN

The Climate and Development Knowledge Network (CDKN) is a global Southern-led programme founded in 2010. The programme is managed by [SouthSouthNorth](#), and implemented in partnership with [Fundación Futuro Latinoamericano](#) and [ICLEI South Asia](#). CDKN works to improve the wellbeing of the most climate-affected people in the Global South, especially marginalised groups, through transformative climate-resilient action. We work in partnership with the public, civil society and private sectors to mobilise knowledge, leadership and capacity in the Global South from local to global levels.

### About the Micaia Foundation

[Micaia Foundation](#), set up in 2009, is an operating foundation, using donor funding to implement a range of projects mostly in three contrasting landscapes where we focus our long-term work. Increasingly, the Foundation is moving to balance project implementation with other activities including encouraging community philanthropy. The Foundation is using its own funds and support from local donors to award scholarships and make small grants to support community actions. At local and national levels, we engage in convening people, organisations, and networks around issues that are core to our mission and which a decade of work has given us a great body of experience and knowledge.



[www.cdkn.org](http://www.cdkn.org)

[cdkn@southsouthnorth.org](mailto:cdkn@southsouthnorth.org)

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