Darwin Initiative Main & Extra: Final Report

To be completed with reference to the "Project Reporting Information Note": (https://www.darwininitiative.org.uk/resources/information-notes/).

It is expected that this report will be a **maximum of 20 pages** in length, excluding annexes.

Submission Deadline: no later than 3 months after agreed end date.

Submit to: BCF-Reports@niras.com including your project ref in the subject line.

Darwin Initiative Project Information

Scheme (Main or Extra)	Main
Project reference	29-014
Project title	Improving community sustainable natural resource management of Mount Mulanje
Country(ies)	Malawi
Lead Organisation	Botanic Gardens Conservation International
Project partner(s)	Mulanje Mountain Conservation Trust (MMCT), WeForest, TRAFFIC, FairWild, Forestry Research Institute of Malawi (FRIM)
Darwin Initiative grant value	£469,116
Start/end dates of project	June 2022 to June 2025
Project Leader name	Alex Hudson
Project website/blog/social media	https://www.bgci.org/our-work/projects-and-case-studies/ miombo-restoration-sustainable-use-in-malawi
Report author(s) and date	Alex Hudson (BGCI), Ane Zabaleta (BGCI), Annelies Andringa-Davis (BGCI), Bryony Morgan (TRAFFIC), Katrina Mole (TRAFFIC), Kate Chanthunya (MMCT), Jamal Rowe-Habbari (FairWild), Mathews Daniel Tsirizeni (WeForest), Jones Matemvu (WeForest)

1 Project Summary

The biodiversity challenges surrounding and within the Mount Mulanje Biosphere Reserve are linked to the following local socio-economic issues: few income earning opportunities, insufficient farms for a large rural population, and a reliance on mountain resources for livelihoods. Deforestation and degradation have resulted from fuelwood use, logging, and agricultural conversion, including within the reserve. The miombo (*Brachystegia* spp.) woodland directly neighbouring communities has been impacted the most from fuelwood and farming, whilst logging also impacts the Afromontane systems in the upper reaches of the mountain.

As resources are depleted, less is available for livelihoods and extreme weather events impact local communities much more significantly (cyclone Freddy in 2023 caused severe erosion and landslides with lives and homes lost and complete communities washed away). Landscape restoration and rehabilitation is needed to revert this situation.

These problems are not unique to Mount Mulanje and occur across the 2.5 million km^2 range of African miombo. BGCI in collaboration with MMCT, and with 3 years of WeForest financial and technical support, identified the gradual local increase of the fuelwood harvesting and impacts of habitat conversion to farmland over seven years in two Darwin Initiative funded projects concerning the conservation of the Critically Endangered Mulanje Cedar tree (*Widdringtonia whytei* - projects 26-017 and 23-026).

This project aimed to develop sustainable livelihoods options from native plants and fungi from Mount Mulanje Biosphere Reserve as alternatives to practices that damage mountain ecosystems, reducing biodiversity and livelihood opportunities. It focussed on 27 villages (9,227 households and Ca.42,900 people) that are involved in the management of two reserve co-management blocks (Kazembe and Tchete – see Annex 5.1), that have a remit to be sustainably managed for biodiversity and people (see figure 1). The project partners worked with businesses and local communities to access markets for native plant and fungi products, including completing FairWild certification application.

A community co-operative and a social enterprise has been established and supported to manage market opportunities, and degraded, co-managed land is being restored including through protection activities and replenishing over-exploited economic species in the most degraded areas.

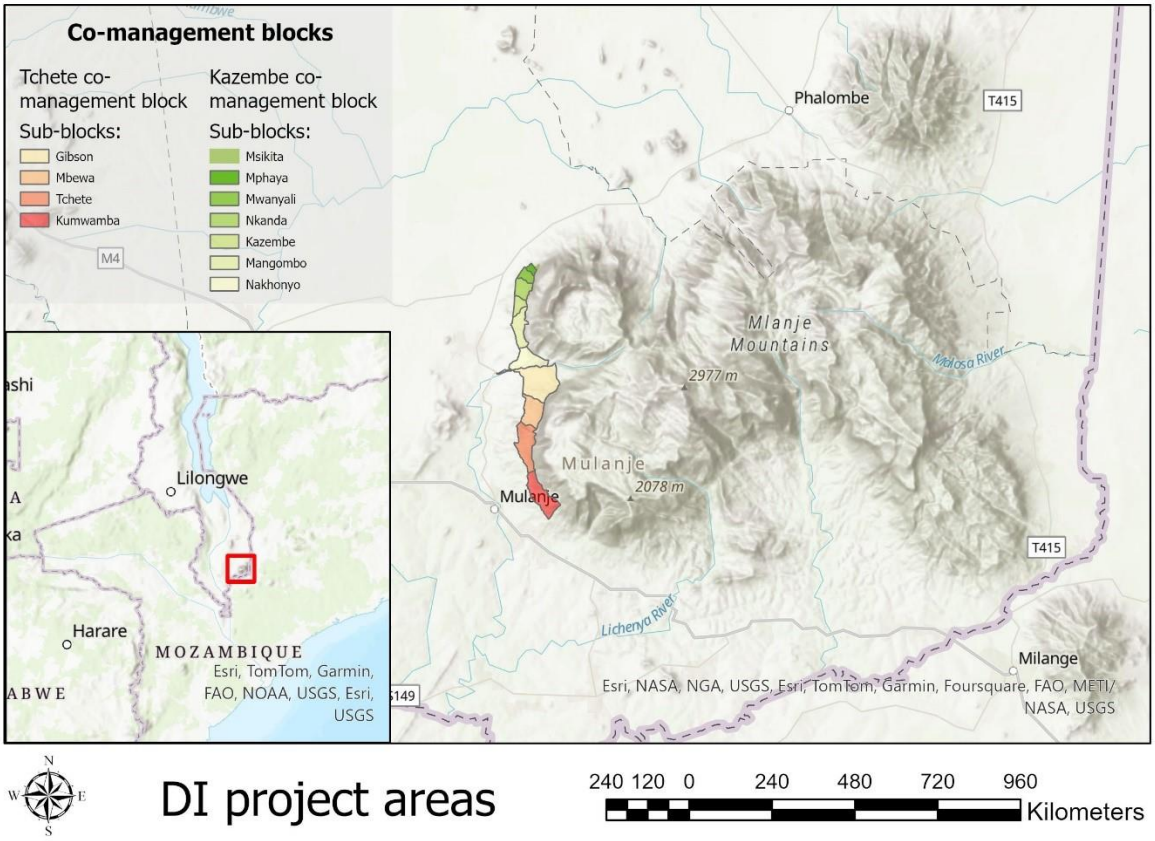


Figure 1: Map of Mulanje and the 2 co-management blocks (and their sub-blocks) within which project activities are taking place

2 Project Partnerships

A steering committee guided the project meeting every 6 months, (see section 3.1 activity 1.1). Separate management meetings, including Forest Sector meetings (now Forestry Resource Platform), were also held between the main project partners: BGCI, MMCT, WeForest and

FairWild (See Annex 5.2). Partners also work collaboratively through working groups focused on different project components, including a restoration group (See example minutes in Annex 5.3) and an education group (see example minutes in Annex 5.4). The latter includes members of the Wildlife Environment Society of Malawi (WESM) due to their involvement in education and awareness raising of conservation in around Mount Mulanje.

WeForest developed an MoU with the Department of Forestry, signed in 2024. WeForest have also signed five-year MoUs with Malawi University of Science and Technology (MUST) to facilitate long term ecological data collection (see section 3.1) and WESM to promote environmental education in the landscape both in schools and communities (see section 3.1). WeForest has helped to establish a local leader's "Chiefs forum" to engage on local issues and support community-led law enforcement initiatives in Kazembe and Tchete (see section 3.1).

FairWild provided support to the project through various international experts:

- Cathy Sharpe – miombo mycologist who works with community harvesting groups in Zimbabwe did the fungi risk assessment (see section 3.1)
- Luke Heller - Business Development Associate, supported business development.
- Dr Valdon Smith - Senior Technical Adviser, certification expert and regular consultant for FairWild Foundation certification assessments (support visits in 2023 and 2024)
- Dr. Marcin Kotowksi - fungi expert, developed the risk analysis methodology and indicators to assess the sustainability of wild harvest of fungi resources.

Cathy, Luke and Dr Smith travelled to Malawi in year 2 to strengthen connections with the project partners, advise on fungi identification and management, and the documentation that is needed to pass FairWild certification (management plan, sustainable harvesting protocols, harvester training plans etc. - see Annexes 5.5 and 5.6).

TRAFFIC provided technical input and aligned the project with their programme of work on sustainable trade, identifying opportunities to maximise the impact of the Darwin funds (see section 4.4).

Project partner MMCT, with BGCI support, has been in communication with four further experts regarding fungi and business developments:

- Professor Paul Thomas from Mycorrhizal Systems Ltd – provided protocol to develop chanterelle inoculation trial (see Annex 5.7)
- Caroline Jacquet from Bio-Innovation Zimbabwe (BIZ) –advised on product development (e.g. recipes and value-addition trials); Cost-Benefit analysis of NTFPs; collector group constitutions, sustainable collection guidelines and Business Plans.
- Gus Le Breton, ethnobotanist from the African Baobab Alliance (and African Plant Hunter) –advised on resource assessment approach, target species selection (based on experiences elsewhere), Research and Development procedures and value-addition options for *Parinari curatellifolia* and *Uapaca kirkiana*
- Owen Martin-Jones, Director of Mayankho Community organisation, Mulanje – supported training of vulnerable women (provided venue) and remains available to support those who wish to start a business (See section 3.1 Output 3).

A team of restoration experts from BGCI's network – the Centre for Ecological Restoration, part of the Global Biodiversity Standard (GBS) project (DAREX001) – supported the restoration monitoring with the GBS methodology. This involved fieldwork with training of researchers and students from the MUST and collaboration with Museums of Malawi and the Forestry Research Institute of Malawi (see section 3.1 Output 5).

In the first two years of the project, it was realised that there were some collaborative challenges between MMCT and WeForest so an in person visioning workshops was facilitated by the project leader (see Annex 5.8) with roles and responsibilities agreed and documented following this (see Annex 5.9). The latter helped to defined lines of reporting on finances and which institute led areas of activities within the Darwin Initiative project.

In a final review workshop in March 2025, SWOT analysis and stakeholder analysis were done by partners and the steering committee group (see Annex 5.10 and sections 5 and 9).

MMCT and WeForest both remain in the Mt Mulanje area and will collaborate beyond the project. TRAFFIC will also seek to stay in contact with partners in Malawi to share guidance materials and resources developed under other projects that may be beneficial to their work.

BGCI, TRAFFIC and FairWild will continue to work together including replicating successes from this project in Nepal and helping to explore possibilities for dual TGBS and FairWild certification in Mt Mulanje in future. They will continue to collaborate around the organisations shared missions to promote the conservation and sustainable use of wild plants and fungi.

3 Project Achievements

3.1 Outputs

Output 1. The opportunities for sustainable use and market potential of at least 10 local plant and fungi species assessed - **achieved**

At there project outset, there was no information on local markets and opportunities for native plant and fungi species.

MI 1.1 – achieved: The steering committee met twice a year, 6 times in total during the project (See MoV 1.1a: in Annex 5.11).

MI 1.2 – achieved: Initial assessments for 11 species were completed by a market analysis consultant (March/April 2023), including assessment of firewood and charcoal value chains, who then produced a strategy report for the selected fruits and fungi (see MoV 1.2a: Annex 5.12 and 5.13). An analysis of the costs and incomes received from the sales of new products towards the end of the project is also shown in section 9 below.

MI 1.3 – achieved: The market maps for 10 native plant species, 3 fungi species and charcoal prior to product development is found in the Kadale market analysis reports (see MoV 1.3a: Annex 5.12). Most of the native plant and fungi markets are small and localised without any reach into higher end markets and no processing. Current native plant product sales were assessed, with *Uapaca kirkiana* the most sold, then *Syzygium* spp. and *Annona senegalensis* third. The consultant suggested potential for increasing sales of fresh produce through either:

1. current functioning informal market chains for fruits and fungi.
2. selected small and medium retailer in Blantyre/Limbe.
3. higher end hotels to offer guests traditional Malawian foods/ use in special events.
4. small and medium processors of products (e.g., juices, dried fruits/fungi with option for grinding into powder, and cooked frozen fungi).

They also highlighted that social enterprises and co-operatives can be challenging in Malawi and recommended working with collectors directly to support them with practical harvesting and aggregation issues. These were incorporated into the Inde Mulanje strategy (see Output 4).

Across four markets in Mulanje and three in Thyolo, the report also provided charcoal prices as a guide for incomes needed from alternatives (although likely increased – see section 3.3):

1. Very small jumbo - between MK150-200.
2. Small jumbo (ca. 700g) - MK300 (noted since devaluation – see section 14: MK400).
3. Medium jumbo at MK500 (noted since devaluation: MK700)
4. 50 kg flat bag between MK6,000-8,000
5. 50 kg extended bag between MK11,000-12,000
6. 90 kg flat bag between MK12,000-14,000

MI 1.4 – achieved: The market strategy report (MoV 1.4a: Annex 5.13), highlighted the challenge of shelf life and suggested product options. Kate Chanthunya, MMCT Project co-ordinator, carried out trials to improve shelf life and add value to 6 target species (see Annex 5.14). Five improved methods for storage and preservation of shelf life tested were:

1. Drying/dehydrating (all target species)
2. Salting /lactofermentation (*Flacourtia indica*)
3. Glaceing/ Candying (*Garcinia buchananii*)

4. Naturally fermented vinegar (all species, to add value to byproducts)
5. Shrubs (immersed in a vinegar and honey solution) (*Flacourtia indica* but may still be tried on the other species)

Nine new products that were developed in the project are (see figure 2 and 3):

1. Wild fruits energy bites
2. *Garcinia buchananii* chewy squares
3. *Garcinia buchananii* and honey cordial
4. Dried and toasted mushroom seasoning powder
5. *Uapaca kirkiana* fruit skin powder
6. Roasted and salted *Parinari curatellifolia* nuts
7. *Flacourtia indica* nibbles
8. *Parinari curatellifolia* fruit roll
9. Naturally fermented vinegar

Figure 2: New products: energy bites and Garcinia chewy squares

Figure 3: New products and community story labelling: Nthema (*Flacourtia indica*) nibbles and Masuku (Uapaca kirkiana) fruit skin powder.

Seven advertising options in the final year used to promote the new products were:

1. Displays and table at sustainability festivals (see figure 4)
2. Social Media: Instagram, Facebook, TikTok
3. WESM and Mountain Club Newsletter inserts.
4. Display shelves at retail partners (e.g. Healthify health shop).
5. Wild Days at local restaurants/cafes with menu items showcasing wild ingredients.
6. Stalls at Farmers Markets and School Fairs – give samples and sell products and connect with a loyal customer base.
7. Website development (see Inde Mulanje website)

Figure 4: Kate Chanthunya at her stall at SustainFest, on Oct 11 2024 in Lilongwe (left); Newly developed products (right)

MI 1.5 – achieved: In July 2023, a species selection workshop was held with 10 stakeholders from 6 institutes. Information on markets and availability of the species and their productivity was used to score each species to narrow down the list to 5 species for development in the project (see MoV1.5a: Annex 5.15). The species selected in the workshop were (MoV 1.5b):

1. Masuku (*Uapaca kirkiana*)
2. Mushrooms (*Cantharellus* spp.)
3. Nanyole (*Syzygium cordatum*)
4. Maula (*Parinari curatellifolia*)
5. Nthema (*Flacourtia indica*)

During community meetings and collection trials it was realised that when referring to 'Nanyole' people included the exotic *Syzygium* species planted in the landscape outside of the reserve (it has the same common name and similar fruits). *S. cordatum* is more restricted and subject to pests (see section 6) so it was decided to change to *Garcinia buchananii*.

Output 2. FairWild assessment carried out for 5 plant species and fungi species to identify gaps in knowledge to achieve FairWild certification - **achieved**

At the start of the project, no native plant or fungi species in Malawi had FairWild certification, and the fungi FairWild certification methodology was in development.

MI 2.1 – achieved: During the project, FairWild risk assessments were completed for 6 plant species (all 'low risk') and 3 fungi (*Cantharellus platyphyllus*, *C. miomboensis* and *C. congolensis*) around Mt Mulanje by a team from TRAFFIC and FairWild (see MoV 2.1a: Annex 5.16). A sustainable collection guidelines manual was produced for all species (see MoV 2.1c: Annex 5.6), in collaboration between MMCT and FairWild, that was then used to train 278 harvesters (196 women), including 10 women with prior knowledge of edible fungi trained in the new fungi protocols (see Annex 5.17).

Trial harvest results are shown in table 1 (MoV 2.1b). For some species, availability was restricted in one of the two harvest years and hence low or nothing was harvested – e.g. *Parinari curatellifolia* in year 3*;* and *Uapaca kirkiana* and mushrooms in year 2 (see section 6)

Table 1: Trials harvest fruits purchased in years 2 and 3 of the project. Note: amount per Kg paid was increased in the second year following calculations of costs of products and potential sale prices once products were developed.

Project year	Species	Amount harvested (Kg)	Cost – MWK (GBP£)
2023-2024	*Garcinia buchananii*	35.3	[redacted]
	Flacourtia indica	196.7	
	Parinari curatellifolia	345	

	Totals	577	[redacted]
2024-2025	*Garcinia buchananii*	179.9	
	Flacourtia indica	159.5	
	Parinari curatellifolia	17.5	
	Uapaca kirkiana	90	
	Mushrooms	148	
	Totals	594.7	
Grand totals		**1,165.7**	

MI 2.2 – achieved: Resources assessment fieldwork between MMCT, the Department of Forestry and local community forest block community members to map the plants of the target species was done involving 21 community members (15 women) (see MoV2.2a and 2.3a: Annex 5.18). GPS co-ordinates were taken to create distribution maps (see figure 3). This highlighted that many species were only available with harvestable resources in less disturbed co-management sub-blocks, verified by the results from the biodiversity survey in Output 5.

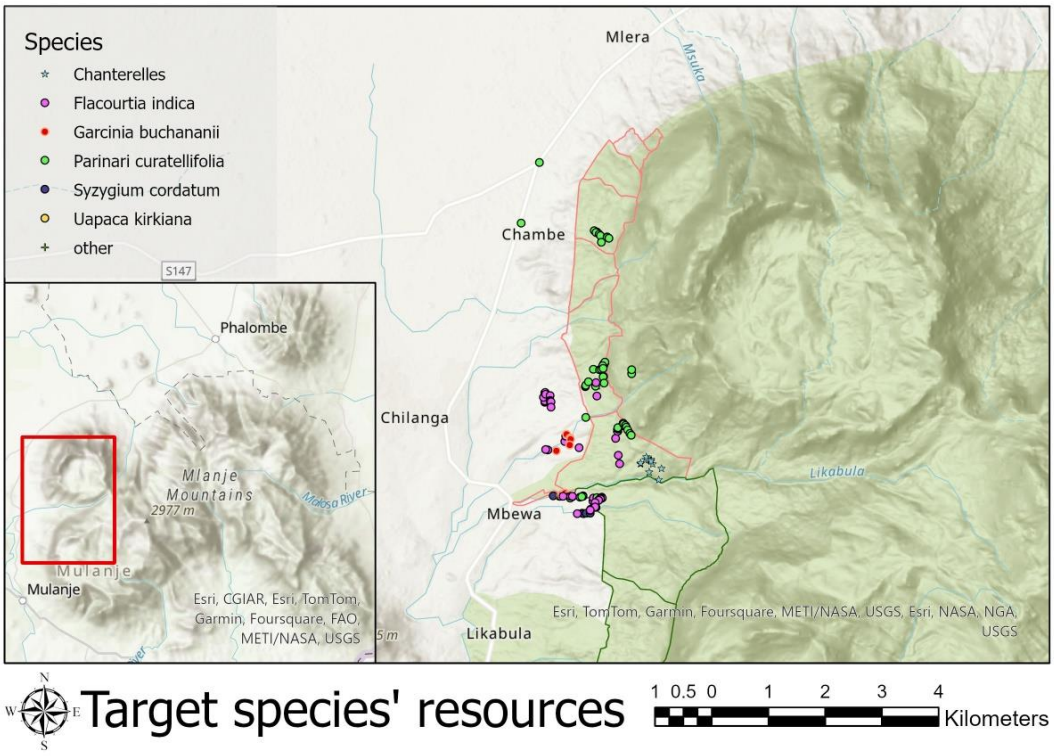


Figure 3: map of resources for the project target species

In the final workshop report (see MoV 2.2b and 2.3b: Annex 5.10), the steering committee group highlighted that understanding of the resources available against the potential demand from products produced is a knowledge gap that needs to be understood better in the future.

MI 2.3 – achieved: A management plan, with the support of FairWild, was documented for the social enterprise, Inde-Mulanje (see Annex 5.5), used for the FairWild standard assessment.

MI 2.4 – achieved: The revision of the FairWild Standard was completed by FairWild Foundation in parallel to this project, with version 3.0 published in December 2023. Indicators / recommendations for auditor training for fungi were also developed (see Annex 5.20), which were confirmed following a round of peer review by experts from FairWild's fungi technical working group – Dr. Gregory Mueller (Chief Scientist and Negaunee Vice President of Science,

Chicago Botanic Garden, USA, and Chair of the IUCN/SSC Fungi Conservation Committee) and Dr. Danna Leaman (Co-Chair of the IUCN/SSC Medicinal Plant Specialist Group (MPSG)); and were piloted in the project in Year 3 (see Annex 5.16).

: The final audit was carried out in 2025 for value chains of products from the five selected species (See MoV 2.4a: Annex 5.21) with the certification processing withheld until outcome of a safeguarding investigation undertaken from April-July 2025 (see section 11).

Due to the work of the project, MMCT is also listed on the FairWild potential operators website for supply of the target fruit species.

Output 3. At least 1 community co-operative established with 4 business centres (with at least 320 community members, 50% female) and trained to cultivate, harvest and process products from the 5 selected target species, and >10,000 households with raised awareness of the importance of sustainable management practices to biodiversity and people – **mostly achieved**

At the project start, no co-operative of business centres existed in Mulanje focused on native plant and fungi products and there was no system or training on sustainable harvesting and processing of native plant and fungi resources locally. The awareness of the importance of sustainable management practices to biodiversity and people in communities was also not understood, until a baseline survey was carried out, as described for MI 3.5 below.

MI 3.1 – achieved: The Malawian Ministry of Industry and Trade (MIT) was engaged to support the co-operative developments in year 2. Originally the project planned to establish 5 co-operatives, each for different wild products, however the government lead advised that one cooperative be established instead of 5 to cover all wild harvested produce, with four business centres (one for each Group Village Head area), so the target was changed (see section 6). Sensitization meetings were held in 4 villages (see MoV 3.1a: Annex 5.22), with co-operative training undertaken with three hundred and twenty local people (reported 75% women – see MoV 3.1b in Annex 5.23). No list of full attendees was recorded or any pre and post surveys undertaken to measure the understanding of the participants (MoVs 3.2b and 3.2c)

In the final year, it was realised that just 87 people joined the co-operative and was felt that the co-operative was not the right vehicle to have between collectors and a social enterprise, so it was decided to work directly with wild harvesters instead (see section 6).

MI 3.2 – achieved: Eleven members of the Chole Farmers' Cooperative Management Committee were elected in November 2023 (see MoV 3.2a in annex 5.23). There is also a Supervisory Committee with three members, and each Business Centre has a registered 11-member committee. The co-operative was registered with the government on 2nd February 2024 (see MoV 3.2d: Annex 5.24) so it can access benefits from the MIT in the future. The members showed an interest in other agricultural crops and the group will be supported by MMCT/Inde Mulanje in the future towards that goal.

MI 3.3 – partially achieved: In 2024 Two hundred and seventy-five community members (193 women), roughly 10 from each village (between 8 and 12), selected by the FBCs, were trained in sustainable harvesting of target species. In 2025, 3 more fruit collectors (all women) from Nakhonyo and Mangombo requested the fruit collection training and were trained and received collector cards, and 12 mushroom collectors (10 women) were trained, once the new FairWild protocols were confirmed. All those trained – 290 community members (206 women) became the registered collectors that can sell to Inde Mulanje and be FairWild compliant (see MoV 3.3a: Annex 5.17).

However, the incomes received did not reach annual incomes mentioned from firewood for most collectors within the project. From sales just under 100 people earned in total just under 3,000,000 Malawian Kwacha (£1,364), with a maximum of 174,000 MWK (ca. £79) earned by one collector and a minimum of 700 MWK (ca. £0.32). 54 (47 women) became more regular sellers earning 89% of the total (see figure 5). Each of these people earned over 14,000 MWK (ca. £6.40) from sales, whilst 3 earned over the target 134,854 MWK.

Figure 5: *Flacourtia indica* fruit collectors at the Likhubula purchase station [left]; Ferester Wyson (L) and Asigere Matimati (R) showing *Ximenia caffra* and *Garcinia buchananii* harvests [middle]; and Mercy Molen showing her *Garcinia buchananii* harvest [right]

The final socio-economic survey discovered that non-trained community members received incomes indirectly when some registered collectors paid them smaller amounts from the funds they received when purchased by the project (see sections 6 and 11). Sixteen survey respondents (14 women) reported selling fruits, and one female respondent reported selling mushrooms who were not trained and registered collectors. This brings the total number of people receiving incomes to 71 (62 women) from the purchase of fruits and mushrooms.

MI 3.4 – partially achieved: The project co-ordinator, Kate Chanthunya, organised alternative livelihoods training options for women in communities throughout the second and third years of the project (see MoV 3.4b: Annex 5.25, Mov 3.4c: table 2 and figure 6). However, the incomes received within the project timeframe did not exceed the annual incomes target from firewood of MK134,854. It is expected that with further support connecting these women to markets larger incomes could be received but the target within the project alongside the new native species product developments was a challenge (see section 6).

Table 2: alternative livelihoods training undertaken during the project

Training event	**Date(s) of training**	**Number of attendees (women)**	**Number earning (women)**	**Average incomes (MWK)**
Beeswax solar extraction and product demonstration	03/2023	14 (3)	5 (2)	MK8000 per kg 5kgs = MK40,000 per person
Beeswax candle workshop	21/11/2024	46 (46)	TBD	TBD
Paper production / briquette production	18/09/2024	74 (74)	18 (18)	MK3000 per person
Weaving and Embroidery Skills	18/02/2025	38 (37)	3 (3)	TBD MK5000 per person
Soap making	19/12/1024	64 (64)	2 (2)	MK9000 per person
Total		**236 (225)**	**28 (25)**	


Figure 6: Workshops for candle making (left), paper making (middle) and sewing (right)

MI 3.5 – mostly achieved: The project implemented a wide-ranging public awareness campaign with 7 activities (see table 3 and MoV3.5a: Annex 5.26). Activities were designed and refined using Behaviour-Centred Design (BCD) and guided by findings from baseline and mid-term KAP surveys, ensuring activities addressed real barriers to behaviour change. This included the development of a slogan for materials "Titeteze Miombo Yathu" – "Protect our miombo".

Table 3: Public awareness activities undertaken in the project and related information

Activity	Description	Date (s)	Number of people reached
Radio programmes	Ten radio programmes were aired twice on Mzati Radio, alongside jingles played nearly 200 times, ensuring messages on forest laws and sustainable practices reached households across the region	Nov 2024 – Feb 2025	~ 308,000 people listened to the programs. ~ 100,000 people participated in the programs through SMS and phone calls
Village head training and chief's forum	Village heads were trained and supported to lead conservation-focused community meetings, and a Chiefs' Forum was established to sustain dialogue on biodiversity and resource protection.	Dec 2023 – Feb 2024	Trained: 26 village heads (13 women); Chiefs' forum: 31 chiefs (12 woman)
Porter's race	The project sponsored 50 runners (25 women). An awareness stand was organised, distributing project leaflets and stickers, and to have discussions with community members. The event was attended by approximately 2,000 people.	23rd July 2024	~ 2,000
School essay and art contest	'My Miombo' themed art (primary) and essay (secondary) competition launched, following environmental education sessions in schools.	Jan-Feb 2025	400 students and 20 teachers
Mobile van	Conducted in 8 areas, to promote messages, jingles, and directly engage community members. The van visited markets and village centres and also distributed project leaflets and t-shirts.	25-28 Oct 2024	~2,500
Guided nature walks	Two guided walks were organised to engage secondary school students and teachers in forest ecology, impacts of unsustainable fuelwood and talk about the importance of protecting the Miombo.	2 Nov and 7 Dec 2024	82 (32 women): 56 students (26 females) 6 wildlife club matrons 10 patrons 5 VNRMC members
Youth club talks	Awareness sessions on the importance of protecting the Miombo were held within five youth environmental clubs.	13 Dec 2024	5 clubs represented (65 students)

Figure 7: Awareness raising workshops in schools and after school clubs

The public awareness campaign was assessed through Knowledge, Attitudes and Perceptions (KAP) surveys carried out in October 2023 (baseline – 1,019 households), May 2024 (mid-term review survey – 251 households) and March 2025 (end of project – 1,003 households - see MoV 3.5a: Annexes 5.26 and 5.27).

It is estimated that around 1,360 households in the target communities received a raised awareness of the importance of biodiversity and sustainable use of natural resources (see Annex 5.26). The radio campaign and business developments also impacted Malawian society outside of Mulanje with Mzati radio stating 308,000 people listened to the programmes. Households outside of the target communities will also have been impacted through word of mouth and interactions at events like the porters' race and mobile van.

To assess changes 12 indicators were selected - 8 from the 2023 baseline and 4 from the 2024 mid-term review. The baseline and endline surveys included both target and non-target communities (see Annex 5.27), but the mid-term review covered only a smaller sample of target households, so disaggregation was not possible for that dataset.

Six of the eight 2023 baseline indicators showed better changes in target communities versus non-target – for two the change was in the wrong direction, however the movement in the wrong direction was less in the target communities (4.8%- and 4.6% smaller in each). Three of the four 2024 mid-term review indicators showed a bigger percentage of the target communities with more positive results than non-target communities (differences of 11.7%, 27% and 29.9%).

While only 2 indicators met the 20-percentage-point target (rather than 6), the results indicate a promising campaign that, if scaled up, could enhance sustainable resource management in local communities.

Output 4. A social enterprise established, and people trained and supported to formalise and certify the value chains of 5 plant or fungi taxa – **mostly achieved**

Prior to the project no social enterprise was operational in the Mulanje area, providing livelihood support through product processing and connection to higher end markets, particularly for value chains for native plant and fungi products.

MI 4.1 – achieved: Social Enterprise workshops were held in 2023 with various project stakeholders (Department of Forestry, WeForest, BGCI, TRAFFIC, FairWild, Forest Research Institute of Malawi, a co-management community representative) and DMT Consult (the project socioeconomic survey consultant). Presentations from similar projects were given, by Andrew Kingman from Micaia social enterprise in Mozambique, and Alexander Kay from Satemwa tea and coffee estate in Malawi, a FairTrade and Rainforest Alliance certified organization for their work with smallholder famers locally. The structure and functioning of a social enterprise as a business model was presented and discussed (see MoV 4.1a: Annex 5.28).

Engagement workshops were also held with community leadership in August 2023 (see Annex 5.22). At this it was realized that it was too early to have in depth dialogue about the social enterprise since leaders quickly wanted to know the income benefits likely, which were not concrete, and it was difficult to put across the risk and uncertainty so there was a relational risk in raising expectations too much and too early.

Results from the initial market surveys (see Output 1) were also incorporated into the social enterprise strategy so that it worked directly with collectors to support them with practical

harvesting and aggregation issues, instead of trying to organise processing through the co-operative since challenges for the co-operative were realised (see section 6).

MI 4.2 – achieved: A feasibility study was also included (see MoV 4.2a: Annex 5.30), whilst this did not identify a specific business incubator (lead partners found it difficult to identify a relevant organisation with good experience for this), FairWild Foundation has acted as an incubator through provision of training and support to staff at MMCT (see section 4.5) and with the development the management plan for the Social Enterprise (see MoV 4.2b: Annex 5.5). They also supported:

- Provision of guidance and generic template for collectors' contracts
- Provision of guidance on establishing fair pricing mechanisms

MI 4.3 – mostly achieved: Following the workshops, a Social Enterprise, called "Inde Mulanje" was registered, a limited by guaranteed company, by MMCT (see MoV 4.3a: Annex 5.31). Matched funding was received from the Bridging private finance and conservation towards the 2030 action targets (BRIDGE) - An Initiative by RedLAC and CAFÉ – to support three employees, and construction of a processing facility for local natural products, including wild collected produce as well as honey and other agricultural produces.

The product processing facility was supposed to be completed during the final year of the project; however, this was delayed due to finance and funding issues. If this had been completed it would have allowed for improved facilities to process and staff to carry out more processing and storage. The delays meant that the project team adapted to update the existing small facilities at MMCT offices (installation of new water station for cleaning, storage and benches, and space for drying equipment) to still improve processing capabilities within the project and develop a larger number of products for sales tests. Despite the full staff not being employed through the delayed matched funded project, the Darwin Initiative project did support an intern to work on raw materials purchases and product processing for the last 3 months of the project and a business consultant from Zantchito Entrepreneurship was employed to train him in business developments, including business plans (see MoV 4.3b: Annex 5.32).

It was also decided that the co-operative was not the best institute to act between the social enterprise and harvesters and so efforts were put on supporting the harvesters directly (see section 6).

MI 4.4 - achieved At least 1 new product developed from 1 or multiple of the 5 selected species that add value to them by Q2 year 3.

Products were developed and tested and businesses engaged by Kate Chanthunya (see figures 2 and 3) in the project. The 5 top that have been sold and have documented processing instructions are:

1. Wild Bars – with dried pieces and cordial of *Garcinia buchananii* and *Flacourtia indica*
2. Nthema Nibbles – made from dried pulp of *F. indica*
3. Garcinia Chewy Squares – leather strips made from *G. buchananii* fruit pulp
4. Garcinia cordial – made from *G. buchananii* strained liquid from fruit leather pulp
5. Wild mushroom seasoning and dried whole mushrooms

Following the market analysis guidance, samples of processed fruit, nut and mushroom products of 4 target species were sent high end market options. A number showed an interest in products (see video in section 10):

- Malawian Health shop "Healthify", Blantyre, interested in selling energy bars (See Annex 5.33);
- Local high-end lodges and restaurants (e.g. a chef interested in mushrooms – see Annex 5.34),
- Satemwa tea estate assessed use of *Garcinia buchananii* dried samples in tea (see Annex 5.35).

Dried fruit products (powders, snack bars and a dried and toasted mushroom seasoning powder) received positive feedback, either alone or as ingredients in other products, including with sales at market events. At the farmers' market in Blantyre MK136,500 (ca. £62) was made from the sale of 7 products on 1st March 2025 (see table 4).

Table 4: Product sales from farmers' market in Blantyre on 1st March 2025

Product	Price per product (MK)	Number sold	Total income (MK)
Garcinia + honey Cordial	5,000	5	[redacted]
Frozen mushroom	5,000	1	
Garcinia chewy squares	2,000	13	
Mushroom pickle	8,000	1	
Masuku powder	2,000	1	
Wild bar	2,500	21	
Mushroom seasoning powder	3,000	6	
Total			

In the final year, MUST carried out nutrition research on the raw fruits and mushrooms as well as processed items (see MoV 4.4a: Annex 5.36). This showed these products could be useful dietary additions of Iron (*Cantharellus* spp.) and vitamins C (all) and A (*Garcinia buchananii* and *Uapaca kirkiana*) (see section 3.2 - table 8).

MI 4.5 – achieved: For Inde-Mulanje, the new social enterprise, through matched funding, a financial plan for the organisation, with project incomes for different products and expenses (see MoV 4.5a – Annex 5.37); logo and branding guidelines were produced for various products, including wild harvested fruit products (see MoV 4.5b: Annex 5.38). With FairWild support a management plan for wild harvested products has also been developed (see Annex 5.5), along with a broader business plan for Inde-Mulanje (see MoV 4.5c: Annex 5.39).

Further cost analysis was also completed for native products based on the harvests, product development and sales seen in the project, summarised in section 9 below.

Output 5. 1000 hectares of degraded co-managed land under restoration and cultivation with useful native plants and fungi to benefit people and biodiversity – **mostly achieved**

MI 5.1 – achieved: Two co-management block plans have been developed following consultation, led by WeForest, with local stakeholders, and local government (see MoV5.1b: Annex 5.1). These align with the Malawi Forestry Policy (2016) and Forestry Act (1997, 2020). They describe the current situation of the blocks and define activities to improve the sustainable management of the resources within.

MI 5.2 – mostly achieved. Target native species for propagation for their economic value were selected following initial ethnobotanical studies, including a non-Darwin Initiative funded Master student study on local firewood preferences Kent (see Annex 5.40). A desk review compiled important scientific data on factors – e.g. wood density, speed of growth, ability to coppice and formation of nitrogen fixation root nodules – to further decide which species to target. Finally, some confirmation meetings were run with target communities by WeForest and this information used to select 8 species for collection and propagation in 2023 (see table 5):

Table 5: Final selected fuelwood species list and relevant seed collection data provided by FRIM.

Botanical name	Local name	Seed Type	Flowering period	Maturity period	Fruit/seed maturity indicators
Afzelia quanzensis	Msambamfumu	Orthodox	Oct- Nov	Apr-Aug	Green to dark brown/black
Breonadia salicina	Ntonya/ Chonya	Orthodox	Nov-Mar	Jul-Oct	Green/brownish

Bridelia micrantha	Msopa	Recalcitrant	Oct- Dec	Jan-Apr	Green/blackish
Burkea africana	Mkalati	Orthodox	Aug- Nov	Apr-Oct	Green/light brown
Dichrostachys cinerea	Dulankhwangwa	Orthodox	Oct-Jan	May-Sept	Brown
Faurea saligna	Thethere		Aug-Feb		
Pericopsis angolensis	Mwanga	Orthodox	Sept-Nov	Jan-Apr	Green/brownish
Sterculia quinqueloba	Msetanyani	Orthodox	Jan-Apr	Sep-Dec	Green/brown

Seed collection and nursery management training was first delivered to MMCT, and WeForest staff in 2023 by the Forestry Research Institute of Malawi (see Annex 5.41). This was followed by training 12 local community members (7 women) by FRIM in December 2023; 7 community members (3 women) in May, 2024; and 24 (12 women) in August 2024. In total, 43 community members were trained (22 women) (see MoV 5.2a: Annex 5.42) and recruited to collect seeds of native plants for propagation. Two nurseries managed by MMCT initially raised seedlings of the species and these were then transferred to 3 community nurseries that WeForest supported to establish in 2024, that were looked after until planting (see MoV 5.2c: Annex 5.43). Following challenges with propagation of some species, in the final year it was also decided to target *Uapaca kirkiana, Khaya anthotheca* and *Brachystegia* species since they are also valued species locally.

In the supported nurseries, 20,936 seedlings of 9 species were able to be propagated and raised to be healthy and planted in the project. The remaining plants needed for planting were then sourced from other nurseries growing plants locally in Mulanje or Phalombe districts, or from furter afield in Blantyre so that in total 31,495 seedlings of 17 species were sourced for planting.

If the seedlings sourced, 8,027 were used to plant *In situ* in two sub-blocks identified as degraded and key sites for enrichment planting (see table 6 and Annex 5.44). This increased planting than initially planned was done because the WeForest team wanted to test planting as a trial in 5 hectares, needing a larger number of seedlings. They wanted to understand the best options to inform future planting in other areas beyond this project.

Table 6: Native species planted

Tree species out planted	Mphaya sub-block	Nsikita sub-block	Total
Burkea africana	**316**	**-**	**316**
Pericopsis angolensis	**2,603**	**875**	**3,478**
Brachystegia spp.	**901**	**494**	**1,395**
Afzelia quanzensis	**385**	**838**	**1,223**
Dichrostachys cinerea	**171**	**-**	**171**
Dodonaea viscosa	**380**	**-**	**380**
Sterculia quinqueloba	**-**	**775**	**775**
Parkia filicoidea	**-**	**7**	**7**
Erythrophleum suaveolens	**-**	**49**	**49**
Breonadia salicina	**-**	**130**	**130**
Bauhinia petersiana	**25**	**43**	**68**
Annona senegalensis	**-**	**1**	**1**
Other species	**30**	**4**	**34**

Totals	**4,811**	**3,216**	**8,027**

MI 5.3 – mostly achieved: WeForest initially supported 50 lead farmers (26 women) and over 1,490 follower farmers (1,108 women) to raise seedlings of four exotic species outside of this Darwin Initiative project. Partners agreed to incorporate native plants in the second half of year 2, with the project targets updated and so Miriam Moyo, WeForest, engaged 15 of the trained farmers (9 women), with 375 follower farmers, to assess interest in native species and select which to plant in 2023/2024 (see MoV 5.3a: Annex 5.45). A further 22 lead farmers (14 women), with 430 follower farmers were supported in the final year so that a total of 37 lead farmers (23 women), with 805 follower farmers, were trained to plant native plants in agroforestry systems.

Of the 31,495 seedlings sourced in the project, 23,468 of 12 species were planted in the two years on 938 farmers land for agroforestry use (see table 7).

Table 7: Species planted in agroforestry on farmers land this from December 2023-March 2024 and December 2024-March 2025

Botanical name	Year planted	Seedlings planted in agroforestry
Cordyla africana	2023/2024	52
Khaya anthotheca	2023/2024	1,854
Tamarindus indica	2023/2024	545
Ziziphus mauritiana	2023/2024	81
2023/2024 total		2,532
Khaya anthotheca	2024/2025	2,770
Dichrostachys cinerea	2024/2025	2,059
Burkea africana	2024/2025	2,652
Brachystegia spp.	2024/2025	320
Pericopsis angolensis	2024/2025	6,062
Afzelia quanzensis	2024/2025	2,958
Bridelia micrantha	2024/2025	1,324
Sterculia quinqueloba	2024/2025	2,329
Breonadia salicina	2024/2025	462
2024/2025 total		20,936
GRAND TOTALS:		**23,468**

MI 5.4 – achieved: In year 2, in the target Kazembe and Tchete co-management blocks, approximately 12km of firebreak was maintained and in year 3 a further 100.139km was maintained, with support of 468 local community members (282 women) (see Annex 5.46). Prescribed burns were carried out each year in the early dry season (June to September) with 211.75 hectares burned in year 2 (see Annex 5.47) and 261.2 hectares burned in year 3 (see Annex 5.46). In total 112.139km of firebreaks were established and maintained in the project, with prescribed burns covering 311.89 hectares of the 1,481 hectares in the two co-management blocks.

MI 5.5 – achieved: The Centre for Ecological Restoration (CERK), Kenya, from BGCI's Ecological Restoration Alliance of Botanic Gardens supported the establishment of new Permanent Monitoring Plots (PMPs) using the Global Biodiversity Standard in March 2024. This included support of other Malawian biodiversity experts:

- Entomology - John Chipeta from The Museums of Malawi.
- Ornithology - Tamara Chirwa, supported by Tiwonge Gawa from MUST.
- Botany - Steven Mphamba from FRIM.

Twelve plots were set up during their visit, and the WeForest team established 11 more plots later in the year so that 23 in total have been established. This provides a baseline understanding of the biodiversity across the co-management blocks and shows the well know regenerative capacity of miombo, with high diversity of plants found in even the most degraded co-management blocks. The blocks in the North are heavily degraded, and no mature trees (Mphaya) and those in the South with standing forest remaining (Nakhonyo and Gibson) (see MoV 5.5a: Annex 5.48).

From assessment in 2025 of PMPs previously established by WeForest in 2020 in just three co-management sub-blocks, the diversity of trees across all three sites decreased whilst the diversity of regenerants decreased slightly in two sites (Mangombo and Nakhonyo) and increased in one (Mbewa) (see MoV 5.5b: figure 8). It was not possible to set up external counter factual for these to show if there was a lesser loss than in sites that didn't have interventions. With this project having started in 2022 and becoming more active from 2023 onwards, a lag time before biodiversity improvements would be expected considering the difficult and complex socio-economic scenario and high population density.

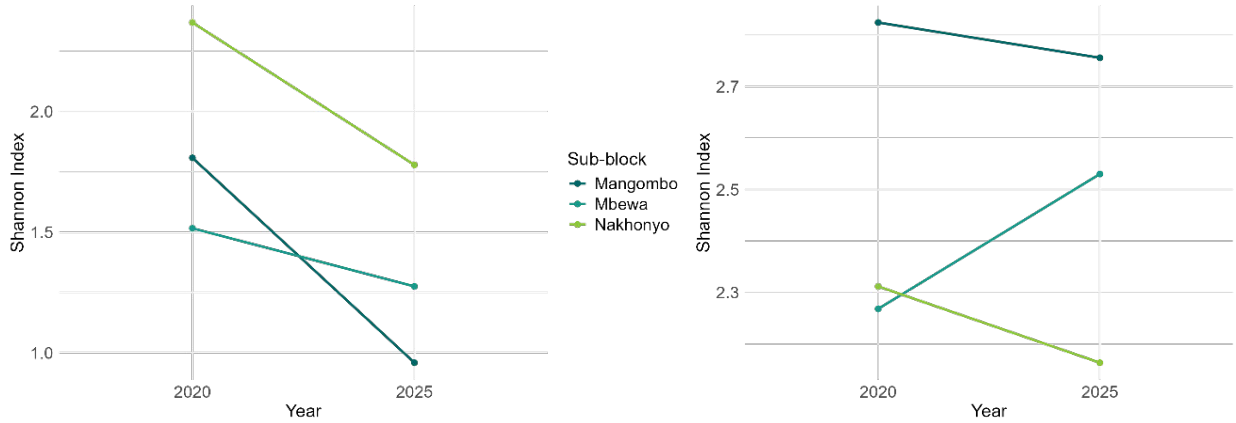


Figure 8: Shannon Index changes from data collected across 4 plots (12 in total) in each of 3 co-management sub-blocks (Mangombo, Mbewa and Nakhonyo). The left chart shows the data from all trees in plots (i.e. individuals over 30cm CBH). The right chart shows the data from all regenerating tree species (i.e. under 30cm CBH)

MI 5.6 – mostly achieved: In the final year, two of the most degraded sub-blocks (Mphaya and Nsikita) were chosen for more intensive silvicultural practices to promote regeneration (see MoV 5.6a: AO). In 8 hectares this included slashing to suppress weeds, spot weeding to minimize competition with other vegetation and to prevent fire and thinning where three or more samplings grow from one stump. In five hectares native plants were also planted (see table 6). The full 30 hectares was not achieved due to a conflicting and concurrent climate smart agriculture project which drew community members into it so that we could not involve enough people to do the silvicultural practices in more than 8 hectares.

3.2 Outcome

MI 0.1 – achieved: following recommendations from a market analysis consultant nine value chain opportunities were identified and tested (see MoV 0.1a Annexes 5.12 and 5.13; and Annex 5.14). Larger harvests in year 3 and the provision of equipment for processing bigger quantities (dryer) and storing raw materials (e.g. freezers) meant that products could be tested with markets to gauge which products had most interest to select a top five (see section 3.1)

The FairWild team and consultants helped to develop the sustainable collection guidelines and collector training materials aligned with the FairWild Standard, as well as a business management plan (see sections 2 and 3.1). These were used to train 278 community members (196 women). This led to the final audit being completed (see MoV 0.1b: Annex 5.16), to be finalised, pending an investigation needed after the project conclusion (see sections 11 and 6).

MI 0.2 – achieved: A new co-operative, the Chole Cooperative with four Business Centres has been registered with 4 business centres – Chambe, Matwika, Thcete and Mandanda (see MoV

0.2c: Annex 5.24; and section 3.1 – Output 3). Native economic species were collected propagated, raised in local nurseries and provided to farmers to use in agroforestry planting in the final year (see section 3.1 activities 5.3-5.4).

MI 0.3 achieved: In the project, with matched BRIDGE funding support, Inde Mulanje Social Enterprise was registered (see MoV 0.3a: Annex 5.24; and section 3.1). More than 9 new products were developed and tested with various markets, including packaging options and freezer storage with positive market connections with 4 market (short the target 5 by 1 opportunities): a top Blantyre chef for fungi; Blantyre farmers market for various products; Healthify food store for wild bars; and Satemwa tea estate for fruit tea options (See MoV 0.3b in section 3.1, table 4 and MoV 0.3c: Annexes 5.33, 5.34 and 5.35).

Nutrition research was carried by MUST on 17 different sample types from 6 species (from fruits of *F. indica*, *G. buchananii*, and *U. kirkiana*; and dried mushrooms of *Cantharellus platyphyllus, C. congolesis*, and *C. miombensis*). Numerous food parameters were investigated – vitamins, minerals, phytochemicals, heavy metals, and compositions of water, fat, fibre, ash, energy, sugar and pH (see Annex 5.36). The results of key parameters for healthy diets, and that are often missing in diets in Malawi are shown in table 8.

Table 8: Summary nutrition analysis (see per product data in Annex 5.49) for the test done on target fruit and mushroom species, showing results for key subset of vitamins and minerals. Adult Recommended Daily Allowances for men and women shown at the end for comparison. Note: variability plus or minus variability has been removed from values in the table

Product	**Vitamin A (Retinyl palmitate mg/g)**	**Vitamin C**	**Calcium (Ca mg/g)**	**Iron (Fe mg/g)**	**Zinc (Zn, mg/g)**
Garcinia buchananii range	1.090 - 35.960	4.237 - 57.443	1.975-2.897	0.094 - 0.312	0.002- 0.004
Uapaca kirkiana ranges	1.257 - 15.310	3.30 - 27.930	1.569 - 2.202	0.151- 0.238	0.002- 0.004
Flacourtia indica ranges	0 - 12.770	3.080 - 47.600	2.412 - 3.881	0.150 - 0.588	0.003 - 0.004
Cantharellus platyphyllus	9.870	74.483	1.248	1.649	0.013
Cantharellus miombensis	9.047	45.010	1.276	2.441	0.008
Cantharellus congolesis	9.540	28.863	2.518	1.837	0.010
Adult RDAs					
Men	700mcg	90mg	1000-1200mg	8mg	11mg
Women	600mcg	75mg	1000-1200mg	18mg	8mg

MI 0.4 – partially achieved: In the project a total of 503 people (419 women) received training in 5 alternative livelihoods activities (see section 3.1 outputs 2 and 3). A further 34 people (14 women) were also trained to collect and process native seeds from which they then received MK11,000 per day taking the total trained in income opportunities to 537 people (433 women).

The baseline socio-economic report (see Annex 5.50) showed that mean annual incomes from firewood sales was MK134,854 and so this was set as the target for income generation.

In the project, three harvesters earned over MK170,000 from fruit and/or mushroom sales; three earned over MK100,000, but not as much as the target; and 80 earned under MK100,000 (from MK700 to MK93,500). Purchases were restricted to control harvest quantities for new product trials due to the early nature of developments and the need to test markets. In the final year, per Kg sale prices were set between MK3,500-5,000 with mushrooms the highest and *Flacourtia indica* lowest. Per harvest incomes ranged from MK2,000 to 78,000 (for 0.4Kg and 15.6Kg of mushrooms respectively), with a mean income per harvest of MK14,739 (Ca. £6.20).

The same fruit collectors reported they can earn between 2,000–3,000 MK for a full day collecting firewood, starting early in the morning, whereas the fruit harvests took between 3-5 hours of a day and so the income per unit time was greater for fruit harvesting than firewood collection (MoV 0.4a and 0.4b).

MMCT project coordinator, Kate Chanthunya, developed a sales forecast analysis that shows a potential Net income of MK6,090,172 (ca. GBP£2,648) from sales at farmers' markets in Blantyre, from wholesale to restaurants and shops, and from self-driven sales in for the rest of the year (see MoV 0.4c: Annex 5.51). This includes 7 new products (4 from fruits and 3 from mushrooms) with markups of around 200% for retail and 150% for wholesale. These figures also include the prices of the fruits and mushrooms in the calculated cost price and so considers potential profitability beyond the Darwin Initiative project.

Therefore, despite the income targets not being reached for the planned 200 community members, there is strong evidence that continued support and expansion of these new markets is feasible and could provide the target incomes for more community members in the future. This would provide a viable alternative to firewood harvesting for incomes.

MI 0.5: almost completely achieved: In total, the 1,481 hectares of woodland in the co-management blocks have received extra protection in the project: forest scouts (see Annexes 5.52 and 5.53, and section 11) have provided protection from overharvesting in all 1,481 hectares; 8 hectares of the most degraded areas have been intensively weeded and managed, and 5 hectares planted; and 311.89 hectares were prescribe burnt to reduce annual fire damage in the heat of the dry season (see section 3.1 – Output 5). These activities have been done to reduce biodiversity loss when continued beyond the project, as WeForest is to continue.

The biodiversity of the sites has been assessed and recorded using Permanent Monitoring Plots, both pre-project and newly established. This includes 23 new baseline plots set up in all 12 of the co-management sub-blocks using the Global Biodiversity Standard methodology, investigating plants, birds and insects, that will be repeated in 2029 (See MoV 0.5b – Annex 5.48). Plots WeForest established in 2020 in 3 sub blocks were re- investigated, which showed a reduction in plant diversity in all but natural regeneration in one sub-block since 2020. WeForest will continue monitor these to understand the impact of activities on plants and plant communities annually.

In total 23,468 individuals of 12 native species were planted in agroforestry with 938 farmers with 8,027 of 12 species planted in restoration sites within the reserve. The number planted for agroforestry did not quite reach the planned 25,000 (see table 7 in section 3.2). This was partially because of some propagation difficulties in the final year and because a backup supplier in Blantyre reneged on supplying 2,000 seedlings of native plants, without communicating early to the WeForest team so that they could identify alternative sources.

3.3 Monitoring of assumptions

Risks and assumptions were monitored throughout the project during steering committee meetings, partner co-ordination meetings and through planned M&E activities: socio-economic survey, market analysis, biodiversity assessment fieldwork.

For assumptions about native species value chain development, national businesses and markets were identified that showed interest in native plant and fungi products in the project (see Annexes 5.33, 5.34 and 5.35 and table 4 in section 3.1). Community members, including leaders (VNRMC, FBCs etc.), stayed engaged and positive towards the wild harvest of native

plants and fungi. Resources assessments (see section 3.1 – Outputs 1 3 and 5) have shown viable supplies of the target species, if not evenly split across the co-management blocks due to varied degradation - an exception was *Syzygium cordatum,* that was swapped out as a target (see section 6 and 3.1 – Output 1). At the final project review workshop, it was felt expanding the social enterprise to fill a future larger demand may require larger supplies from other miombo areas in Malawi (see Annex 5.10). A business incubator was not identified with similar experiences with wild product development, but FairWild and numerous other advisers provided a lot of support (see sections 2 and 3.1 – Output 4).

For international markets, it was realised that the assumption these would be available within 3 years was not possible since some of the miombo species are unknown in Western markets, where there would be more demand for sustainable and fair-trade products, and these would require legal/regulatory support before they could be exported. It was therefore decided to reorientate towards domestic markets. However, the management team did connect with businesses in Europe and South Africa that showed interest in longer term plans, which the team will continue to build on following the project.

For assumption about understanding fuelwood markets, it was also possible to gauge the incomes received from fuelwood from the market analysis work (see section 3.1 – Output 1), however it was noted prices increased (e.g. MK14,500 from 11,000-12,000 for 50kg extended bag), partially due to a currency devaluation in 2023 (see section 13). The socio-economic surveys gave further insight, with the final survey coinciding with project leader's final visit to Malawi, in which enumerator, Charles Kayenda, introduced him to an informal market and sellers expressed the lack of alternatives as a driver and higher value of native plant charcoal (see figure 9). This showed the ease to identify and speak with charcoal sellers, important for future strategy developments against fuelwood impacts as a key contributing stakeholder.

Figure 9: Informal market in community area around the mountain in which charcoal sellers congregate to sell to transporters who take the bags to urban areas.

For the assumption that the co-operatives were a good vehicle for engaging community members in wild harvest value chains, it was realised these were not good a group to carry out processing activities and it is better to work directly with harvesters, processing in the social enterprise facilities (see Annex 5.12 and 5.13 and section 6). However, the co-operative has 87 members who have paid membership, so it remains to support agriculture endeavours in the future.

Restoration strategies and practices were agreed between partners after debates about what was best in year 2 (see section 5). Repeat assessment of Permanent Monitoring Plots (PMPs) showed that so far, the restoration practices being employed have not led to increases in plant biodiversity since 2020 (see section 3.2 – Output 5), however it was not possible to assess counterfactual plots to see if the decrease was different – i.e. less – and the economic situation from 2023 has increased charcoal impacts nationwide, including on miombo woodland in protected sites (see section 13). Extra TGBS PMPs were established and new partnerships

with MUST and the Museums of Malawi for future monitoring to ensure biodiversity impacts can be measured (see section 2, and section 3.1 activity 5.5).

Despite the increase in charcoal production, charcoal producers are a small segment of local society and so it is still felt the pathway to change holds true - increasing community protection through raised awareness, income benefits and strengthened decision making. Further support to the establishment of alternative livelihoods is needed to continue gains and scale up. WeForest and MMCT will remain in Mulanje to do this to an extent, however the wild harvested new products may require further support to reach other areas of miombo woodland, with new communities and local partners to support Inde-Mulanje, the social enterprise, to develop these value chains further beyond the project (see section 9).

3.4 Impact

The project's planned impact was "Plants and fungi from 7,500ha of miombo woodland surrounding Mount Mulanje are restored, managed and used sustainably by local communities creating biodiversity conservation and economic benefits".

A key contribution the project was to inform WeForest of the invasive potential and dangers of some of their target agroforestry species, and get them to incorporate native species into their planting mixture (see section 3.1).Whilst they planted many more exotic trees in communities, native planting was also done with communities and farmers closer to the reserve to protect the reserve from the impact of future invasive escapes. WeForest has already started to work in Phalombe with communities, replicating the learnings from this project, covering 2,994.5 hectares, and they will continue to support for at least another seven years, incorporating the learning from this project in how they implement things.

For restoration of the reserve, the project was able to support the planting of native saplings in the most degraded co-management blocks, as well as improve protection from harvesting activities with a three-pronged approach: education and awareness raising; community protection and sustainable management; and alternative livelihoods development. The final socio-economic and KAP surveys showed the positive impact on perceptions (See section 3.1 Output 3 and Annexes 5.27 and 5.54). Assessment of trees in PMPs established in 2020 and reassessed in 2025 showed that diversity decreased since 2023 (See section 3.1 - Output 5).

Further monitoring plots established in March 2024 show good regeneration of miombo species, even in the most degraded plots (see section 3.1 - Output 5). This involved many Malawian stakeholders (see section 2), who can repeat monitoring in 5 years to assess impacts and achieve TGBS certification if a positive change in biodiversity.

Poverty, and a lack of employment opportunities and land, drive land conversion and overexploitation of miombo resources for fuelwood, degrading swathes around Mount Mulanje. The baseline socio-economic survey showed average monthly household incomes (MK36,389) are below the countries minimum wage target (MK50,000) and low incomes from native plants (MK1,100 monthly - see section 5 and Annex 5.50). 32 harvesters earned over MK36,750 from fruit and mushroom sales, above the average monthly household income, and 85 sellers earned over MK1,100, representing increase incomes to prior to the project from native plants and fungi. Considering the sales forecast (see section 3.2) social enterprise profits could be made to maintain the prices paid to harvesters, creating a sustainable opportunity with a bit more support to the value chain establishment (see section 9).

4 Contribution to Darwin Initiative Programme Objectives

4.1 Project support to the Conventions, Treaties or Agreements

There has also been policy interaction regarding the use of native plants and ABS under the Nagoya protocol of the CBD. Kate Chanthunya, MMCT had communications with Malawi's National Focal Point, Ms Martha Mphatso Kalemba from the Malawian Environmental Affairs Department, on the requirements for the shipping of raw plant material to a cosmetic laboratory (Botanichem) in South Africa for testing. An ABS application form for this has then been

completed in readiness for the potential transport and research although this was not done in the project (see Annex 5.55). No policy has been directly altered by this project. Ms Mphatso and Ethel Chikondi (also from the Environmental Affairs Department) both joined the final project assessment workshop in March 2025 (See Annex 5.10).

4.2 Project support for multidimensional poverty reduction

The project beneficiary groups are defined in tables 9 and 10 below.

Table 9: Project beneficiaries that received monetary benefits each project year.

Beneficiary group	Monetary benefits received (Number of women in brackets)				
	2022-2023	2023-2024	2024-2025	Total	Expected
Fruit and mushroom collectors	0	48 (28)	45 (39)	86 (61)	270
KAP survey enumerators	0	14 (4)	12 (6)	24 (9)*	14
Seed collectors	0	12 (7)	43 (22)	43 (22)	12
Resource assessment: community members	0	23 (12)	2 (2)	23 (13)	21
Resource assessment: forestry officer and FBC chairs	0	3 (1)	2 (0)	3 (1)	3
Social enterprise workers (infrastructure not ready by project end)	0	0	1 (0)	1 (0)	35
Vulnerable firewood collectors	0	0	28 (25)	28 (25)	150
Totals	**0**	**100 (52)**	**133 (94)**	**202 (131)**	**505**

*Two people (one women) took part in both KAP surveys, so the total does not equal exactly the sum across the two years

Table 10: Project beneficiaries and non-monetary benefits they received each project year.

Beneficiary group	Non-monetary benefits received (Number of women in brackets)				
	2022-2023	2023-2024	2024-2025	Total	Expected
Fruit collectors – sustainable harvest delivered by MMCT	0	42 (30)	236 (166)	278 (196)	271
KAP survey enumerators - survey and use Kobo Collect delivered by MMCT and BGCI	0	14 (4)	12 (6)	24 (9)*	14
Seed collectors –seed collection training	0	12 (7)	31 (15)	43 (22)	24
Co-operative members (incl. administrative) – Co-operative Member training delivered by MIT	0	320 (240)	0	320 (240)	320
Leadership groups (VNRMC, FBC, Village heads, Group Village Heads) – restoration leadership, early burning and patrolling delivered by WeForest	0	186	468 (282)	468 (282)	350

Farmers (Agroforestry) – propagation, planting and management delivered by WeForest	0	390	879 (696)	879 (696)	780
Farmers (Agroforestry) – received native tree species					
Vulnerable firewood collector women	0	0	218 (218)	218 (218)	300
Community members – indirectly receiving knowledge from trained leaders	0	Ca. 42,900	Ca. 42,900	Ca. 42,900	Ca. 42,900
Totals	**0**	**963 - +42,900**	**1,844 (1,383) - +42,900**	**2,230 (1,663) - +42,900**	**2,085 - +42,900**

*Two people (one women) took part in both KAP surveys, so the total does not equal exactly the sum across the two years

An increased understanding of the benefits of biodiversity, the negative impacts that result from fuelwood overexploitation and other options were also a goal of the project. The project team connected with WESM (see section 2) in the creation of the education working group (see Annex 5.4 for minutes) that has been using the rare methodology (https://rare.org/) to design education and awareness raising pilot program that is people centred. Public engagement activities under the project successfully raised awareness about the importance of Mount Mulanje and its miombo woodlands, laying the groundwork for long-term behaviour change.

4.3 Gender Equality and Social Inclusion (GESI)

GESI Scale	Description	Put X where you think your project is on the scale
Not yet sensitive	The GESI context may have been considered but the project isn't quite meeting the requirements of a 'sensitive' approach	
Sensitive	The GESI context has been considered and project activities take this into account in their design and implementation. The project addresses basic needs and vulnerabilities of women and marginalised groups and the project will not contribute to or create further inequalities.	X
Empowering	The project has all the characteristics of a 'sensitive' approach whilst also increasing equal access to assets, resources and capabilities for women and marginalised groups	
Transformative	The project has all the characteristics of an 'empowering' approach whilst also addressing unequal power relationships and seeking institutional and societal change	

The project exceeded targets for women involvement in training with 83% of 503 people trained. Skills gaps were identified during community meetings with the village heads for the alternative livelihoods training for women. Women have also been main income beneficiaries for wild fruit and mushroom harvests and alternative livelihoods options and of the 202 people receiving monetary benefits, 66% were women. In the final project socio-economic survey, it

was noted the project achieved a strong gendered outcomes but also a safeguarding concern was raised (see section 11 and Annex 5.10)

In the Mulanje area, customary systems are matrimonial, so land and resources pass through the women, however, men still have power within households for income generation activities, as primary earners and decision makers. It was learnt during the project that one community concern is men from outside villages marry into families to access resources, like woodland for charcoal production, and leaving families once this has been exploited therefore the awareness raising activities including messages about this (see Annex 5.26).

In all elements of the project, engagement with community groups and village heads in the design of activities has been important: agroforestry, restoration protection, education and awareness, livelihoods. A lot of engagement happened in the first half of the project to inform decisions for the rest of the project: species selection for wild harvesting and fuelwood for agroforestry, preferred agroforestry methods, social enterprise opinions and expectation, mapping of resources.

Youth were identified as a second vulnerable group and specific education and awareness activities were targeted at them. Many young people are unaware of the severe environmental challenges facing their region and activities like a guided nature walk and miombo awareness sessions for youth environmental clubs they gained understanding of these issues and become empowered to speak out as active ambassadors for conservation.

4.4 Transfer of knowledge

TRAFFIC has sought to transfer knowledge generated by the project in different ways:

- A restoration practitioner toolkit was developed by TRAFFIC with funding from CCI's Endangered Landscapes and Seascapes Programme (ELSP) and TGBS, led by BGCI (DAREX001) that (see section 10):
    - the Mt Mulanje project directly influenced the development of the practitioner toolkit. The species selection matrix used during the project's species selection workshop informed the development of the species use assessment and market assessment sections of the practitioner toolkit.
    - Included a project case study developed exploring how the project has integrated sustainable use principles into the forest restoration and management objectives for the target sites.
- Project experience also fed into development of the conceptual framework for "Wild Harvest Improvement Projects" (WHIPs), funding from the Darwin Initiative's Innovation fund (DARNV013). Experience from the Mt Mulanje project reinforced how long-term approaches to wild harvesting enterprise development and market access are necessary to help vulnerable and disadvantaged communities reach sustainable harvesting standards, and that different frameworks may help to engage industry actors where longer pathways to certification are needed. TRAFFIC's experience with the project has influenced thinking about what types of frameworks may be needed.

FairWild has also transferred knowledge to the MMCT team in Malawi to support the business developments. FairWild certification experts supported the following:

- Increased understanding of organic certification, and product processing and quality control aspects of wild harvest operation (8 – 14 October 2023)
- Development of the management plan for the wild harvesting operation, using the new template that had been developed for FairWild Standard version 3.0.
- Provided guidance and generic template for collectors' contracts establishing fair pricing mechanisms.

From the BGCI network, the team from CERK trained WeForest and MMCT staff, working with other biodiversity experts in March 2024 in the methods to establish PMPs, using The Global Biodiversity Standard (DAREX001) (see section 3.1 – Output 5).

A radio campaign was carried out to transfer knowledge to the local communities and a wider audience (see section 3.1 – Output 3 – table 3), which included messages based on the awareness raising strategy that included lessons learnt from engagements with target co-management block communities.

4.5 Capacity building

No in country partners staff saw an increased in their status nationally, regionally or internationally during the project.

5 Monitoring and evaluation

Logframe changes were agreed in December 2024 to change targets (see Annex 5.56). This followed project learning that natural regeneration could offer a more cost-effective way to regenerate the miombo following debate between the project partners combined with the evidence from the TGBS surveys done in March 2024 (see section 3.1 – Output 5).

M&E for each project component was owned by the in country partner that led the project activities in that area, with BGCI support: WeForest led M&E for the agroforestry and co-management block restoration, with BGCI connecting to the Global Biodiversity Standard for updating PMPs (see section 3.1); MMCT led M&E of livelihoods development and the educational outreach components of the project, including implementing the KAP survey, with BGCI support on survey designs and electronic data capture. Information was shared at steering committee meetings, and project working group meetings (restoration, education).

An external evaluation of the project impact on communities was carried out by socio-economic consultants (see Annex 5.50 and 5.54). This concluded that the diverse activities in the project appeared to influence behaviour and perceptions positively, although the livelihoods models need further work and refinement to achieve the goals of sustainability and reducing degradation. The final report highlighted a need for improved monitoring and evaluation structures and co-ordination between the partners.

These external comments aligned with the project management team's learning (see Annex 5.10), confirming that longer support is needed when establishing new market systems, with native plants, with new organisational structures to support value chains (e.g. the social enterprise). It also aligned with the results from the KAP survey which suggested a positive impact from the outreach campaign (see section 3.1 – Output 4).

6 Lessons learnt

Electronic data capture Using KoboToolbox forms to collect data across project activities has made collection and analysis more efficient. All in country partners did this, whether to assess plants in the field or local community members opinions in the KAP survey.

Economic species resource assessment lessons: When deciding target economic species, both community consultations and fieldwork are important to assess the interest, knowledge, and resource availability. In consultations, some species were described as not abundant – *Parinari curatellifolia* and *Flacourtia indica* – and others abundant - *Syzygium cordatum* – however field assessments showed the opposite. The economic incentive of the purchase trials facilitated members to find more of *P. curatellifolia* and *F. indica*. For *S. cordatum*, it was realised that respondents grouped exotic *Syzygium* species because they are all called Nanyole and the wild *S. cordatum* was found to have low productivity because of pests and they are difficult to harvest often found riverside so fruits fall into water.

When doing resource assessments, working with previously identified knowledgeable community members improved the exercise efficiency and empowered people to value their knowledge for successful management of the natural resources.

Co-operative lessons: In year 2, it was realised that co-operative establishment is expensive, requiring government protocol and MTI experts for sensitisation and training. The membership fee required to join then holds people back from joining, especially when considering new innovative markets, like those of wild fruits, and the currently small incomes. Value addition opportunities at that level within communities are also difficult with wild fruit and mushroom perishability requiring a dedicated building with running water and electricity (for freezers and dehydrators) to function as a centre for the amalgamation and sale of raw products, which the co-operative could not support.

It was decided in year 3 it would be better to work directly with collectors to provide resources for the established social enterprise that had processing and storage capabilities, without a co-operative in the middle. This was also advised by the market analysis consultant, although this was report was delivered after co-operative activities with MTI had started (see Annex 5.12 and 5.13).

Communication: Hybrid meetings proved difficult without good internet connections, speakers and microphones, so that online attendees missed discussions and it was discussion between those online and those in person was difficult. Better sound equipment would make this easier.

Communication and collaboration between partners have also been a challenge in the project. Group exercises, like a long-term visioning workshop attempted to rectify this, however, high staff turnover meant this was a challenge to the project end. For example, new staff coming in to implement education and public engagement activities developed by others meant some initiatives had to be cancelled, while others like addressing sensitive topics in community meetings achieved more limited outcomes than originally expected.

Training, education and public engagement: Among the most successful initiatives were school-based activities: after-school clubs, classroom workshops, and guided nature walks inspired genuine enthusiasm among children and youth, with some expressing interest in pursuing careers in conservation. The drawing and essay competitions also generated meaningful engagement. Finally, our presence at the high-profile Porters Race was a major highlight, enabling us to widen our reach - including media outlets and local leaders - and reinforcing the value of engaging with large public events to amplify conservation messages.

Power dynamics lessons: It was learnt during the socio-economic final assessment that some registered collectors would pay others to collect for them to sell to the project, providing lower incomes to the secondary collectors. This should not have happened under the FairWild system, and the training explained this to collectors, however the poor economic situation drove this, contributing to a local safeguarding concern (see section 11).

Market access: One overall lesson learned was the length of time and resources needed to build new innovative markets when needing to select species and develop new products. The reliance on an externally matched fund for the social enterprise, Inde Mulanje, with delays added to the difficulty, although the alternative pathway for processing still allowed progress to be made still. Within this project it was realised that to deliver both the new market developments from native plant and fungi resources, alongside supporting multiple alternative livelihoods options with training and improving access to markets for producers, was difficult to do concurrently. With the resources available a more focused effort on more beneficial and marketable options would be preferable, e.g. waste paper and other materials briquette production, for use instead of fuelwood in homes or

Charcoal sellers: No charcoal sellers were directly involved in the project engagements because of expected difficulties engaging, however the final project socio-economic consultant assessment team showed this was incorrect (see section 3.3). This opens the door for more communication in the future so that they can be a part of any new project designs to mitigate charcoal impacts on miombo woodlands in Malawi. More in-depth engagement and use of co-creation methodology, with groups along the whole charcoal value chain would be beneficial, which the baseline market analysis consultant team did not do. We would recommend this for similar projects.

Fungi: The project experienced identification issues with the fungi species being targeted by the project (Chanterelles). In response to this, FairWild Foundation identified a Miombo fungi expert who could visit the site and assist with resolving the identification issues (see section 2).

The fungi expert who conducted a field visit to Mount Mulanje highlighted the importance of using native species in restoration and agroforestry noting that planting some non-native species for firewood can inadvertently introduce toxic fungi species which grow with them damaging native biodiversity and providing a potential hazard to local communities unfamiliar with them.

7 Actions taken in response to Annual Report reviews

The year 2 reviewer noted that the project has highlighted a supply risk with harvesting from wild stands in the variable production linked to climate and natural cycles. *Uapaca kirkiana*, *Parinari curatellifolia* and mushrooms were all hit by one bad year in the two years of harvesting, whilst *Flacourtia indica* and *Garcinia buchananii* both had stable supplies across the year. For these reasons product developments focused on the latter two species and wild fruit ingredients for the wild fruit bars were designed and tested to be variable depending on the availability in any given year. This may lead to ranges of wild fruit products that incorporate different ingredients and/or ingredient content based on what is seasonably available but still sticks to the flavours that consumers expect, with further market testing to confirm those.

The year 2 reviewer suggested changes to an Outcome assumption and consideration of an additional assumption, which were included in the change request agreed in December 2024.

The final comment from the year 2 reviewer was to report on a new grievance and redress system put in place. The FairWild consultant, Valdon Smith, advised on a grievance mechanism for the social enterprise (see Annex 5.57).

8 Risk Management

The main risk noted in the final year was the Safeguarding concern (see sections 6 and 11). No adaptations were taken to the project, but a fund request to use some unspent funds from the final year on an investigation was accepted, which is ongoing.

In the final year, Malawi suffered from fuel shortages towards the end of 2024, which lasted longer than in previous years. Implementation teams kept communication channels open with petrol stations to know when fuel deliveries were arriving to get in queues early so that the impacts were minimal and no adaptations were needed for the project.

9 Scalability and Durability

Important stakeholders for miombo woodland conservation across Malawi and native species value chain developments were part of the steering committee and were present at the final workshop (e.g. African Parks, the National Herbarium and Botanic Garden – see Annex 5.10). Other institutes have been communicated on project activities, such as for the provision of native species' seeds (e.g. Wells for Zoe, the Miombo Network), and these will be sent details of the final report, to try to include them in collaborative plans to expand the success to other parts of Malawi, with other organisations also engaged (e.g. Wildlife Action Group in Salima)

Local community members have shown interest in the increased use of native species (see section 10 video, and Annexes 5.27 and 5.54). The sales forecast (Annex 5.51) also shows how the project harvests could produce sufficient income for half a year to be sustainable, with calculated margins including the costs for fruit and mushroom purchases, packaging and labels (see section 3.1 – table 4 and see section 3.2). The Net cost would be available to support the social enterprise next year with fruit and mushroom, and other ingredient purchases; staff costs; energy costs; and feed into a community development fund, like FairWild premium.

The project has managed to gain support from other interested businesses in either dried mushrooms or products from some of the fruits (see Annexes and 5.33, 5.34 and 5.35). The KAP surveys showed a positive change from the project (see section 3.1 – Output 4 and Annex

5.26). These suggest that a more sustained campaign aimed at a wider audience around the mountain, in combination with new livelihoods development strategies and improved community management and governance, could contribute to local biodiversity conservation.

The website resource, to advertise the social enterprise and native plant products (see https://indemulanje.org/), will also support income generation, being editable by the social enterprise staff using a manual and videos provided. Staff at partner organisations remain in place funded by core institution funds or other projects although two individuals have decided to move on, one from MMCT and one from WeForest, since March 2025.

Blogs and news stories (see section 10) have led to communications with Sainsbury Plc because of tea suppliers they source from around Mulanje and their interest in supporting sustainable resource management in the area.

External partners, BGCI, TRAFFIC and FairWild, have also had a lasting impact on Malawian partners increasing their capacity, with local expert networks also increased. For example, BGCI connected the GBS CERK team to train WeForest and MMCT staff on the methods to establish new PMPs (see section 3.1 – Output 5); and TRAFFIC and FairWild connected MMCT with experts to build capacity to document and manage the social enterprise protocols.

With MMCT and WeForest's commitments to the social enterprise and co-management block restoration, the progress is extremely likely to endure beyond the Darwin Initiative. The direct costs of social enterprise equipment and facility upgrade at MMCT within the project will remain allowing them to continue processing wild fruits and mushrooms. When the processing facility from matched funds is completed, these capital items can be rehoused, with extra staffing to increase processing output (see section 3.1 – Output 4).

For FairWild, the project has allowed the testing of FairWild documents and approaches in the context of establishing a new social enterprise and new commercial-scale harvest operation. New tools were developed - e.g. fungi certification, heat-risk mapping tool, guidance documents on fair trade aspects including price setting and collector contracts. These lessons and tools will be applied in other projects implementing the FairWild Standard for example the Darwin Extra project "Scaling conservation of Himalayan plants and fungi through sustainable trade" (DAREX012).

TRAFFIC is committed to setting up a series of internal workshops to share lessons learned and transfer knowledge related to projects centred around sustainable use and management of plant species. This will allow TRAFFIC to link projects with similar objectives and provide opportunities for collaboration on future proposals.

10 Darwin Initiative identity

Within the project, the Darwin Initiative has been publicised in many ways, including mentioning the UK Government's contribution to the project. At training events, community meetings, and interactions with potential customers and retailers the Darwin Initiative was always mentioned as the project funder. The Darwin Initiative was always highlighted as the project funder with the logo on presentations and mentioned to the group. The Darwin Initiative logo was put on project promotional materials and new product packaging (see Annex 5.58 and figure 9) as well as T-shirts given to runners and signs for the 2024 porters race (see figure 10).

Figure 9: Designed product packaging and story board (left) and promotional stickers and leaflets (right) with the Darwin Initiative logo.

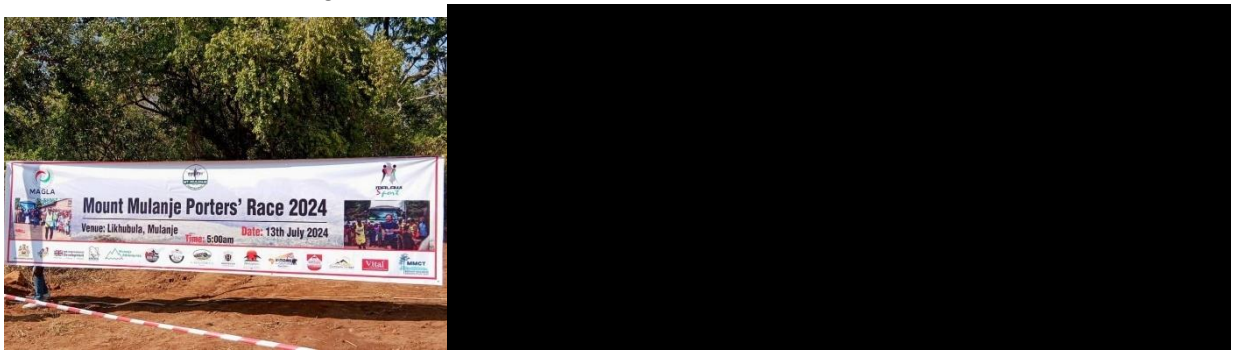


Figure 10: Porters race sign and participants with t-shirts with Darwin Initiative logo on the right side of racers' chests

As the third Darwin Initiative project in Mulanje and Phalombe districts, this continual promotion means there is a wide local recognition of Darwin Initiative in the area. For all business developments using native plants and fungi, the Darwin Project is the only driver and so is known by the communities involved as "The Darwin Project", or just "Darwin". In the restoration components, including the agroforestry activities, with WeForest using matched funding for a lot, the incorporation of native species is specifically identified as driven by the Darwin Initiative.

Messages on social media accounts of all partners; a project webpage on the BGCI site; BGCI project blogs; a video on wild fruit and mushroom harvesting, created by a volunteer videographer from Canada; and a website for the social enterprise, Inde Mulanje, all link to and pay thanks to the Darwin Initiative and UK Government for the project support:

- https://www.bgci.org/our-work/projects-and-case-studies/miombo-restoration-sustainable-use-in-malawi/
- https://www.bgci.org/news-events/mount-mulanje-on-fire/
- https://youtu.be/YHXJhV64Ek4?feature=shared
- https://www.indemulanje.org

The partnerships with other Malawian institutions like MUST and WESM as well as government officials (e.g., ABS National focal point) mean that other Malawian conservation, research and government institutes are also more aware of the Darwin Initiative and the UK Government's support given to Malawi. Shorter communications with other restoration practitioner institutes, like Wells for Zoe, African Parks and Cabi have extended this even further.

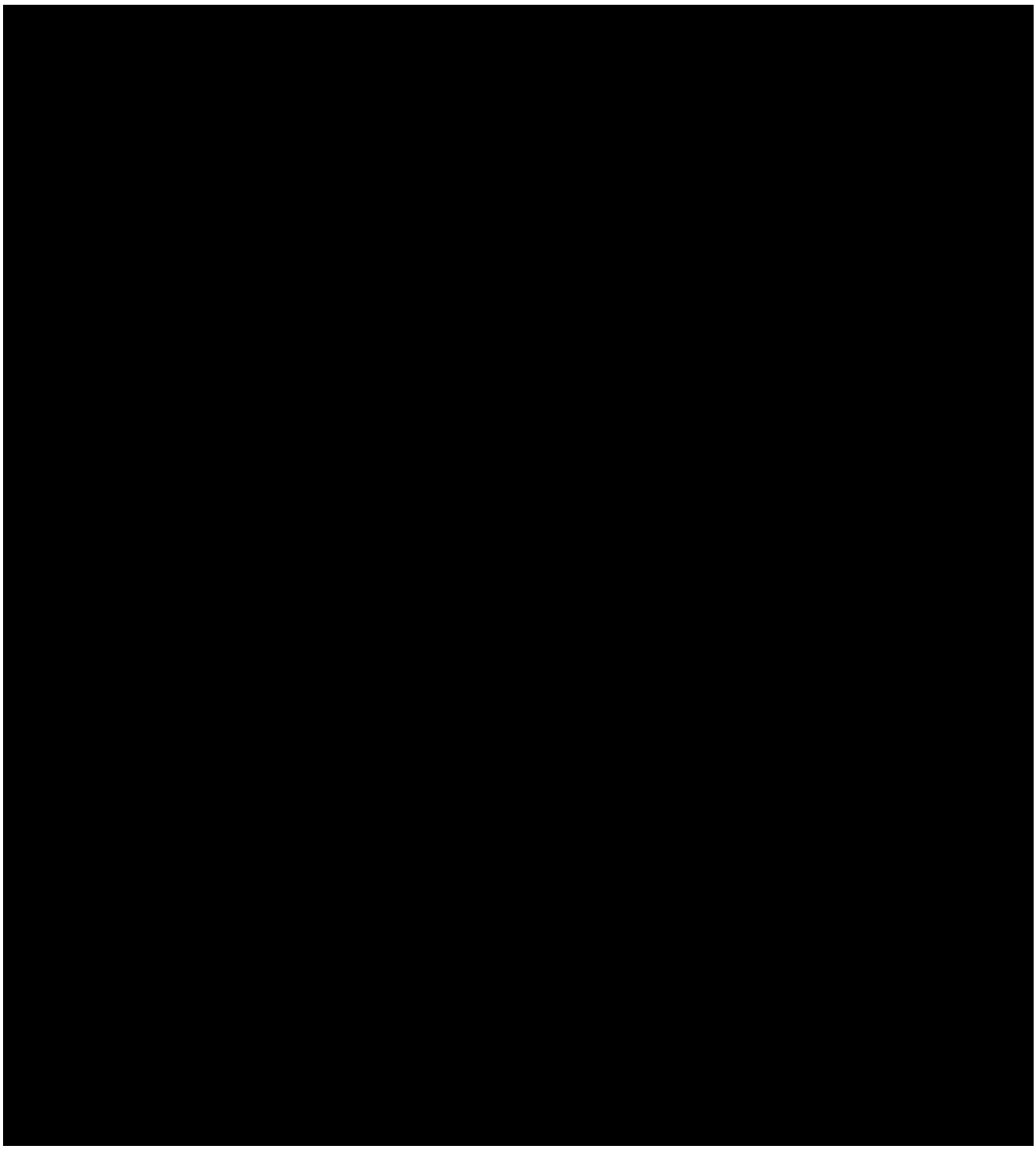
A case study on the project was also developed and published using resources from TRAFFIC's sub grant on the Global Biodiversity Standard (DAREX001) in relation to newly published "Guidance for restoration practitioners", which also includes a reference to Darwin Initiative funding and the Darwin Initiative logos:

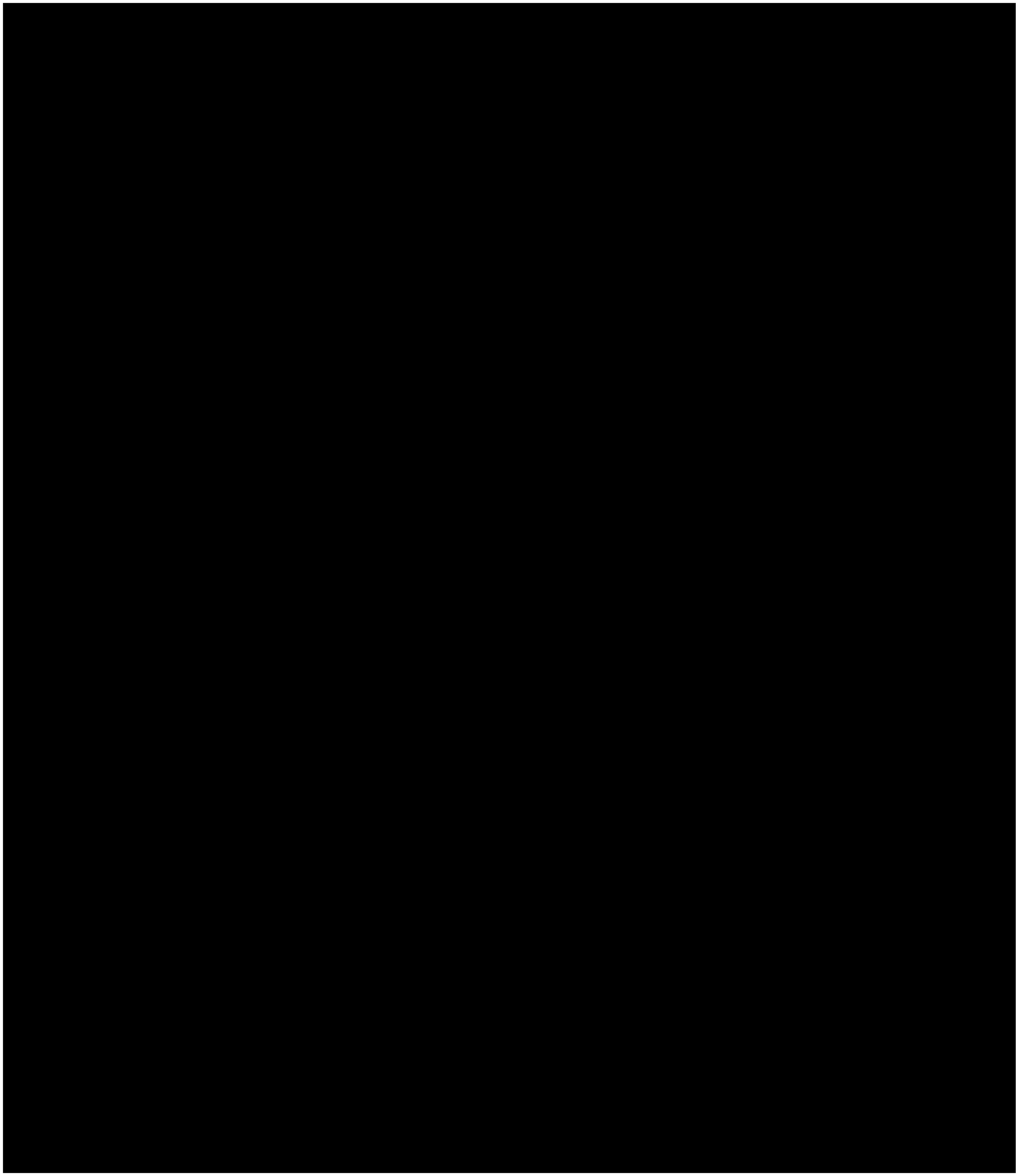
- Toolkit for restoration practitioners
- Abridged version of case study online
- Full case study (to be published within a package of mentoring materials for TGBS assessors and practitioners will include credit to the Darwin Initiative - see Annex 5.29)

A webinar was held on 3rd June 2025 to launch this toolkit for restoration practitioners; a recording is available on the toolkit website referenced above.

A news story was also published on Mongabay about the project and past projects ongoing in Mt Mulanje and the project has been featured in TRAFFIC's Charity Commission report (p.14), available from the Charity Commission website as an example of the type of work that TRAFFIC does to engage with harvesting communities, although these do not refer to the Darwin Initiative or UK Government specifically.

11 Safeguarding





12 Finance and administration

12.1 Project expenditure

Project spend (indicative) since last Annual Report	2024/25 Grant (£)	2024/25 Total actual Darwin Initiative Costs (£)	Variance %	Comments (please explain significant variances)

Staff costs (see below)	[redacted]			
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				
TOTAL	30000	13,498		

Note: The investigation is ongoing during the report development and so some of the figures may change slightly when the final claim Excel and Word files are submitted at a later date.

Staff employed (Name and position)	Cost (£)
-	
TOTAL	

Capital items – description	Capital items – cost (£)
-	
TOTAL	

Other items – description	Other items – cost (£)
-	
TOTAL	

12.2 Additional funds or in-kind contributions secured

Matched funding leveraged by the partners to deliver the project	Total (£)
BGCI staff time to support investigation – Alex Hudson, project leader [redacted]	[redacted]
MMCT investigation support – MK1,500,000	
WeForest investigation support – MK684,000	

TOTAL	[redacted]

Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project	**Total (£)**
-	
TOTAL	

12.3 Value for Money

BGCI's overhead and staff rates are less than other equivalent NGOs' staff whilst achieving a lot in projects through project direction, provision of expert training from the BGCI network and leading scientific investigations and project monitoring. External staff rates elsewhere start at £400/day, whilst key implementing BGCI staff have been £250/day. Standard inflation costs year on year are also often 5% whereas in this project just 2% was added annually.

Within the project, there were difficulties with MMCT finance systems, exacerbated by changing finance staff twice in the project. During this, BGCI supported project staff to set up a separate expense monitoring system, which ended up being used to track expenses throughout the project.

For capital item purchases (industrial dryer, cooking and processing equipment, storage freezers), multiple shops or quotes were investigated, in Malawi or abroad. For the dryer, it was necessary to import, and the final selection decision was based on cost, including the supplier locality (coming from South Africa), as well as the suppliers experience providing to other African countries (e.g. Dryers for Africa has provided dryers to 25 African countries - https://www.dryersforafrica.co.za/Projects.html). These costs would have been very challenging to afford in the Malawian context without the Darwin Initiative and Bridge project support.

Similarly, for workshops and project meetings, either partner facilities were used or if these could not accommodate the events, then three quotes for Mulanje options were received before deciding which to use (see example of final workshop quotes in Annex 5.19).

The project's implementation also catalysed further funding for MMCT/Inde Mulanje to support construction and staffing of a new processing facility that will house much of the purchases and allow scaling up of the processing operations, for a bigger impact in the future. Considering the capital costs already spent from these two projects, when the processing facility is completed, the cost for upscaling the native wild fruit and mushroom value chains will require less financial support, mainly to deliver training and transport of raw materials, with partnering an established intermediary business instead of starting something a new to keep those costs down and so reduce the cost per beneficiary beyond the project.

With 202 income beneficiaries, the cost per income beneficiary from the project was £2,322, decreasing to £210 per non-monetary beneficiary. With these beneficiaries in the majority women, this has reached some of the most vulnerable of Malawi (see section 4.3).

When just considering the wild harvesting beneficiaries and project costs this is equivalent to £286 per income receiving wild harvester and £89 per beneficiary trained in sustainable wild harvesting. With £21,408 for the capital item costs (87% of costs), which would not be required for expansion, the per beneficiary cost is likely to reduce significantly, even with an increase to transport costs due to nationwide distances that could be considered for other Malawian miombo woodland.

13 Other comments on progress not covered elsewhere

Currency devaluation in November 2023 has impacted the project by altering the value of the £ against the Malawian Kwacha, but also by impacting the livelihoods of people in Malawi. The latter, combined with the extreme weather events has led to increased use of natural resources, and in particular woodlands for charcoal production, across the country,

considerably increasing encroachment and land conversion. Continued logging, charcoal production and firewood collections was seen throughout the project, although not as drastic as seen in other parts of the country (e.g. Michiru Mountain Conservation Area, close to Blantyre - https://wesm.mw/2025/04/14/michiru-mountain-community-scouts/).

During the project, because of difficulties with international markets, it was decided to focus more on product developments for national markets (see section 3.3). However, internationally some connections were made at the Cape Town Natural and Organic Expo in South Africa (March 2024) and the Union for Ethical Biotrade conference in Holland (October 2024), but the provision of test products of raw materials was not possible in the project to provide official commitments and letters of interest.

14 OPTIONAL: Outstanding achievements of your project (300-400 words maximum). This section may be used for publicity purposes.

I agree for the Biodiversity Challenge Funds to edit and use the following for various promotional purposes (please leave this line in to indicate your agreement to use any material you provide here).

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
				Yes / No
				Yes / No
				Yes / No
				Yes / No
				Yes / No

Annex 1 Report of progress and achievements against logframe for the life of the project

Project summary	Progress and achievements
Impact Plants and fungi from 7,500 ha of miombo woodland surrounding Mount Mulanje are restored, managed and used sustainably by local communities creating biodiversity conservation and economic benefits	The project impacted WeForest, and their long-term strategy in the area to consider native plants in agroforestry instead of exotics / potential invasives and how they increase biodiversity through patrols, fire management and planting (see section 3.1). WeForest will apply lessons learnt to benefit biodiversity in Phalombe covering another 2,994.5 hectares of co-management blocks, taking the total area, they are working in to 4,475.5 hectares in the next 7 years. Although re-assessment of trees in PMPs established in 2020 showed that plant diversity decreased in 2025 (See section 3.1 - Output 5), new plots establish across all co-management sub-blocks using TGBS methodology, along with relationships with FRIM, MUST and Museums of Malawi to track biodiversity impacts in a wider area across plants, birds and insects. The final socio-economic and KAP surveys showed a positive project impact on perceptions (see section 3.1 Output 3 and Annexes 5.27 and 5.54). Initial baseline monitoring of new PMPs showed good regeneration of miombo species, even in the most degraded plots (see section 3.1 - Output 5) suggesting continued campaigns that influence behaviour change to reduce impacts on the co-management blocks could have a real impact on biodiversity around Mt Mulanje. The baseline socio-economic survey showed average monthly household incomes (MK36,389) below the countries minimum wage (MK50,000) and low incomes from native plants (MK1,100 - see section 5 and Annex 5.50). 32 harvesters earned over MK36,750 and 85 earned over MK1,100 in the project. Considering the sales forecast (see section 3.2) social enterprise profits could be made to maintain the prices paid to harvesters, creating a sustainable opportunity (see section 9).
Outcome 500 hectares of miombo woodland being restored and 25,000 trees of at least 10 economically important native plants planted on 500 farmer's land as part of varied agroforestry practices benefiting biodiversity and supporting >10,200 people's livelihoods	In the project patrols have been carried out in the 1,481 hectares of co-management blocks the project targeted with 311.89 hectares. Hectares prescribed burnt to protect the areas from intense fire and overharvesting. 23,468 seedlings of 9 native economic species were planted with 938 farmers in agroforestry. 145 people also received incomes from the project, 3 of which were also involved in agroforestry taking the total number of households with livelihoods impacts to 1,080 people. With average family sizes shown to 4.74 (see Annex 5.50) this suggests the project supported around 5,119 people.
Outcome indicator 0.1: 5 value chain opportunities identified by the Q2 year 2 and collection practices aligned to the FairWild Standard by the project end.	Achieved: 9 new products were developed and tested with various markets, including packaging options and freezer storage (see section 3.1 – Output 1). A FairWild audit was completed for 5 value chains (See MoV 0.1b: Annex 5.16), to

	be finalised based on the findings of the investigation needed at the project conclusion (see sections 11 and 6).
Outcome indicator 0.2: 1 new co-operative with 4 business centres formed with local communities that are officially registered with the government by the end of year 2.	Achieved: A new co-operative, the Chole Cooperative with four Business Centres has been registered (see MoV 0.2c: Annex 5.24; and section 3.1 – Output 3).
Outcome indicator 0.3: A social enterprise formed by the end of year 1, with at least 1 new product in research and developed by Q2 year 3 (including storage and packaging), and markets connected for 5 products from economic native species by the project end.	Mostly achieved, short by 1 market connection: A social enterprise was established and register, Inde Mulanje, with business management plan produced (see MoV 0.3a: Annex 5.24; Annex 5.5 and section 3.1 – Output 4). Nutrition research was also completed by MUST on 6 species (see Annex 5.36 and section 3.2 – table 8). Positive market connections made with 4 market options (See MoV 0.3b in section 3.1 - table 4 and MoV 0.3c: Annexes 5.33, 5.34 and 5.35).
Outcome indicator 0.4: 500 people trained on alternative income opportunities, 200 receiving incomes from alternative livelihoods that exceed incomes from firewood (MK134,854) by the project end.	Partially achieved, target for incomes not met: In the project a total of 503 people (419 women) received training in 5 alternative livelihoods activities (see section 3.1 outputs 2 and 3). A further 34 people (14 women) were also trained to collect and process native seeds from which they then received MK11,000 per day from the project taking the total trained in income opportunities to 537 people (433 women). 133 (101 women) received incomes in the project, however, only 3 received over the target income from firewood sales in the last year of the project.
Outcome indicator 0.5: 500 ha of miombo woodland being protected to allow natural regeneration and baseline biodiversity understood across the degradation gradient with 25,000 trees of at least 10 target native economic species planted in 780 farmers' land by the project end.	Mostly achieved, agroforestry planting target missed by 1,532 plants with restoration planting exceeded by 7,627: 31,495 seedlings of 17 native economic species were collected propagated, raised in local nurseries and planted in restoration sites (8,027 of 12 species) and with 938 farmers in agroforestry (23,468 of 9 species) in the project and (see section 3.1 - Output 5).
Output 1: The opportunities for sustainable use and market potential of at least 10 local plant and fungi species assessed	
Output indicator 1.1: Project steering committee established in year 1, to guide and monitor project progress meeting biannually throughout the project.	Achieved: The steering committee met twice a year, 6 times in total during the project, including a final project review workshop in March 2025 (See Annex 5.10 and MoV 1.1a: in Annex 5.11).
Output indicator 1.2: National and international markets for products from 10-15 short-listed native economic species understood by end of year 1.	Achieved: Assessments for 11 species were completed by a market analysis consultant (March/April 2023), including assessment of firewood and charcoal value chains, and then produced a strategy report for the selected fruits and fungi (see MoV 1.2a: Annex 5.12). An analysis of the costs and incomes received from the sales of new products towards the end of the project is also shown in section 9.

	International markets were not persuaded in the project in the end due to challenged, although contacts were made for future opportunities to develop (see sections 6 and 13).
Output indicator 1.3: Maps of current local value chains for 10-15 short-listed native economic species, firewood and the charcoal industry produced identifying actors in the chain doing collection, processing, transport, and sale by end of year 1.	Achieved: The market maps for 10 native plant species, 3 fungi species and charcoal prior to product development is found in the Kadale market analysis reports (see MoV 1.3a: Annex 5.12). Most of the native plant and fungi markets are small and localised without any reach into higher end markets and no processing. Charcoal prices learnt are shown in section 3.1 – Output 1.
Output indicator 1.4: At least 5 methods of improving storage, 5 new products, and 5 ways of advertising to increase the value of all or a subset of the 10-15 short-listed native economic species shown by end of year 1.	Achieved: Kate Chanthunya, MMCT Project co-ordinator, trialled many new product development options to add value to 6 target species (see Annex 5.14). Five improved methods for storage and preservation or shelf life were tested; 9 new products developed and 7 forms of advertisement and sales (See section 3.1 – Output 1).
Output indicator 1.5: 5 native economic species selected for sustainable development by Q1 year 2.	Achieved: In July 2023, a species selection workshop was held to share information on markets and the availability of species and their productivity and to score them to narrow down the list to 5 targets for development in the project (see MoV1.5a: Annex 5.15 and the selected list, MoV 1.5b, in section 3.1 – Output 1). Following selection one species was also swapped for another due to lessons learnt on abundance (see section 6).
Output 2: FairWild assessment carried out for 5 plant species and fungi species to identify gaps in knowledge to achieve FairWild certification	
Output indicator 2.1: Sustainable harvest protocols for 5 selected species produced by the end of year 2.	Achieved: A sustainable collection guidelines manual was produced for all species (see section 3.1 Output 2 and MoV 2.1c – Annex 5.6), in collaboration between MMCT and FairWild.
Output indicator 2.2: Maps of the distribution and abundance, and gaps in knowledge of current practices of 5 selected species produced by Q3 year 2.	Achieved: Following resource assessment fieldwork, involving 21 community members (15 women), maps of the target species were produced, (see MoV2.2a and 2.3a – Annex 5.18 and section 3.1 – Output 2 – figure 3). Many species were only available with harvestable resources in less disturbed co-management sub-blocks. The final workshop report (see MoV 2.2b and 2.3b – Annex 5.10), highlights that understanding the resources against the potential demand for products needs to be understood to develop scaling up strategies (see section 9).
Output indicator 2.3: 1 management plan for the social enterprise produced with all relevant documentation for FairWild certification by Q3 year 3	Achieved: A management plan, with the support of FairWild, was documented for the social enterprise, Inde-Mulanje (see Annex 5.5), used for the FairWild standard assessment.
Output indicator 2.4: 5 selected species audited or pre-audited by FairWild, including innovative new audit for fungi by the project end.	Achieved: The final audit was carried out in 2025 for value chains of products from the five selected species (See MoV 2.4a - Annex 5.21) with the certification

	processing withheld until outcome of a safeguarding investigation undertaken from April-July 2025 (see section 11). Due to the work of the project, the new social enterprise, Inde Mulanje, is listed on the FairWild potential operators' website for supply of the target fruit species.
Output 3: At least 1 community co-operative established with 4 business centres (with at least 320 community members, 50% female) and trained to cultivate, harvest and process products from the 5 selected target species, and >10,000 households with raised awareness of the importance of sustainable management practices to biodiversity and people	
Output indicator 3.1: At least 320 Community members (50% female) selected through the Forest Block Committee to be involved in the co-operative by Q2 year 2.	Achieved: The Malawian Ministry of Industry and Trade (MIT) supported this and initially held Sensitization meetings in 4 target villages (see MoV 3.1a – Annex 5.22), followed by co-operative training with 320 local people (ca. 75% women) (see section 3.1 – Output 3 and MoV 3.1b in Annex 5.23). In the year 3, just 87 people had joined the new Chole Farmers' Cooperative co-operative, and it was felt the co-operative was not the right vehicle between collectors and a social enterprise, so it was decided to work directly with wild harvesters instead (see section 6).
Output indicator 3.2: At least 10 co-operative members understand co-operative management and administration and can access benefits from the Ministry of Industry and Trade with 1 new co-operative registered by the end of year 2.	Achieved: Eleven members of the Chole Farmers' Cooperative Management Committee were elected in November 2023 (see section 3.1 - Output 2 and MoV 3.2a in annex 5.23). The co-operative was registered with the government on 2nd February 2024 (see MoV 3.2d – Annex 5.24) so it can access benefits from the MIT in the future.
Output indicator 3.3: 250 community members (50% female) trained to sustainably harvest target species and using sustainable harvesting/ processing methods for selected native economic species by Q3 year 3 with at least 60 of these gaining incomes that exceeds annual incomes from firewood (MK134,854) by the project end.	Mostly achieved, target for incomes not met: 278 community members (196 women) were trained to sustainably harvest wild plant and fungi resources aligned with the FairWild Standard (see sections 3.1 – Output 3 and Annex 5.42). 71 people (62 women) received incomes from harvests, although 17 (14 women) were not officially trained, with just 3 earning more than the target income within the project timeframe.
Output indicator 3.4: 300 single-headed household vulnerable women from firewood head-loading background – work in small production groups each making one of following - soaps, oils, polishes, creams, candles, etc for local marketing / sales by the end of year 2 and at least 140 of these receiving incomes that exceeds annual incomes from firewood (MK134,854) by end of project	Partially achieved, target number of women and for incomes not met: In the project alternative livelihoods training with three options was delivered with 236 people (225 women) (see MoV 3.4b - Annex 5.25 and Mov 3.4c: section 3.1 – Ouput 3 - table 2 and figure 6). 28 (25 women) of these received incomes within the project but these did not exceed the annual incomes target from firewood of MK134,854. Further support to connect with relevant markets in the future could help to realise this.
Output indicator 3.5: The understanding of the importance of biodiversity to livelihoods, and ways and benefits of sustainable use increased at least 20% at	Mostly achieved, indicator 20% point differences were not reached for all indicators: Using a Behaviour-Centred Design approach seven public awareness activities were carried out in the project (see section 3.1 – Output 3 – table 3 and MoV3.5a - Annex 5.26). Knowledge, Attitudes and Perceptions (KAP) surveys

EOP of at least 6 of 12 indicators identified in a baseline survey carried out in Q1, year 2 in Mulanje and Phalombe.	were carried out in October 2023 (baseline), May 2024 (mid-term review survey) and March 2025 (end of project - see MoV 3.5a - Annexes 5.26 and 5.27) to assess the impact using 12 selected indicators - 8 from 2023 baseline and 4 from the 2024 mid-term review. For the 2023 baseline indicators, the change seen in target communities versus non-target was improved in the target communities for six indicators, but none reached a 20-percentage point difference; for the 2024 mid-term review indicators, three of the four showed a much bigger percentage of the target communities with more positive results than non-target communities with differences of 11.7%, 27% and 29.9% points. Overall, two of the indicators reached the target of a 20-percentage points difference rather than 6 (see section 3.1 – Output 3).
Output 4: A social enterprise established, and people trained and supported to formalise and certify the value chains of 5 plant or fungi taxa	
Output indicator 4.1: Recommendations from local mountain stakeholders, including community members, produced for how the social enterprise should be developed and managed by end of year 1	Achieved: Workshops with various stakeholders, including local community leadership about the social enterprise took place in 2023. The structure and functioning of a social enterprise as a business model was presented and discussed (see section 3.1- Output 4 and MoV 4.1a: Annex 5.28; and Annex 5.22). Results from the initial market surveys (see section 3.2 - Output 1 and section 6)
Output indicator 4.2: Business incubator supporting the social enterprise by Q2 year 2	Achieved: FairWild and its consultants acted as a business incubator for the social enterprise, Inde Mulanje, providing training and support to staff (see section 4.5) and helping with the development of the management plan (see MoV 4.2b: Annex 5.5). They also provided guidance on a generic template for collectors' contracts and how to establish a fair pricing mechanism.
Output indicator 4.3: Social enterprise infrastructures supporting the co-operative to benefit from new opportunities from the selected native plant and fungi species by end of year 2.	Mostly achieved, working with co-operative strategy changed and matched funding delays reduced processing and sales impact: Inde Mulanje was registered, a limited by guaranteed company, by MMCT in 2023 (see MoV 4.3a: Annex 5.31). Matched funding was to support three employees, and construction of a processing facility for local natural products, including wild collected produce. This was delayed so that by project end the facility, and extra staff were not in place. Instead, the project updated the existing small facilities at MMCT offices to provide larger processing and storage in the final year, as well as an intern to work on raw materials purchases and product processing for the last 3 months of the project and a Malawian business consultant to support (see MoV 4.3b: Annex 5.32). This meant more products were able to be made and sales tested in markets (see section 3.1 – Output 4 – table 4) It was also decided that the co-operative was not the best institute to act between the social enterprise and harvesters and so efforts were put on supporting the harvesters directly (see section 6).

Output indicator 4.4: At least 1 new product developed from 1 or multiple of the 5 selected species that add value to them by Q2 year 3.	Achieved At least 9 new products were developed and tested with added value and businesses engaged (see figures 2 and 3) in the project. The 5 top that have been sold and have documented processing instructions are shown in section 3.1 – Output 4, one of which incorporates two target species into a cereal bar.
Output indicator 4.5: Business plans developed for the co-operative and the social enterprise, including marketing plans and branding guidelines by the end of the project.	Achieved: Two business plans, a financial plan and logo and branding guidelines have been produced for Inde Mulanje (see MoV 4.5a: Annex 5.37; MoV 4.5b: Annex 5.38; see MoV 4.5c: Annexes 5.5 and 5.39).
Output 5: 1000 hectares of degraded co-managed land under restoration and cultivation with useful native plants and fungi to benefit people and biodiversity	
Output indicator 5.1: A restoration strategy for degraded collaborative management areas created following engagement with 19 co-management Village Natural Resource Management Committees, local plant scientists, and expertise from WeForest and the Ecological Restoration Alliance by end of year 1.	Achieved: Two co-management block restoration plans have been (see section 3.1 – Output 5 and MoV5.1b: Annex 5.1). These involved engagement with numerous stakeholders in Malawi, including community leaders, government and project partners.
Output indicator 5.2: 50 community members (50% women) collecting seeds of at least 8 target economic species and delivering them to 4 local nurseries to propagate at least 25,000 seedlings for planting in agroforestry and 400 individuals for restoration planting trials by January 2025	Mostly achieved, fewer community members involved than targeted: 43 community members (22 women) were trained (see MoV 5.2a: Annex 5.42) and recruited to collect seeds of native plants for propagation. Two nurseries managed by MMCT and 3 community nurseries that WeForest supported in 2024 (see MoV 5.2c: Annex 5.43) raised 20,936 seedlings of 9 with 10,559 of 8 species sourced from other nurseries in Mulanje, Phalombe or Blantyre (see section 3.1 – Output 5)
Output indicator 5.3: 500 community members (50% women) trained to plant and manage 25,000 plants of at least 8 agroforestry species on their land Q2 year 3.	Mostly achieved, slightly fewer trees planted in agroforestry: WeForest, engaged and trained 37 lead farmers, with 805 follower farmers, to assess interest in native species and select which to plant (see MoV 5.3a: Annex 5.45). Of the 31,495 seedlings sourced in the project, 23,468 of 12 species were planted on 938 farmers land for agroforestry use (see section 3.1 – Output 5 - table 7).
Output indicator 5.4: 100km of firebreaks established and 400 hectares under prescribed burns to protect parts of the 1,481 hectares from fire impacts by October 2024 to improve natural regeneration beyond the project.	Mostly achieved, total area prescribe burnt was slightly under target: In total 112.139km of firebreaks were established and maintained with prescribed burns covering 311.89 hectares of the two co-management blocks (see Annexes 5.46 and 5.47). 472.95 hectares was burnt in the two years but overlap of some burnt areas across the two years mean the total area burnt was less.
Output indicator 5.5: Baseline biodiversity assessment completed, and 20 permanent monitoring plots established for monitoring of restoration strategy impacts beyond the project by December 2024.	Achieved: 23 plots were established across all the 12 co-management blocks using The Global Biodiversity Standard methodology, collecting baseline data on plants, birds and insects. A report describing the biodiversity across the landscape was produced (see MoV 5.5a: Annex 5.48). This data and the institutional partnerships formed will use these plots to monitor biodiversity change beyond the project.

Output indicator 5.6: 30ha of highest degraded blocks receiving intensive natural regeneration support (weeding etc.) by December 2024	Mostly achieved: Two of the most degraded sub-blocks (Mphaya and Nsikita) were chosen for more intensive silvicultural practices to promote regeneration (see MoV 5.6a: AO). In 8 hectares this included slashing to suppress weeds, spot weeding to minimize competition with other vegetation and to prevent fire and thinning where three or more samplings grow from one stump. In 5 hectares native plants were also planted (see section 3.1 – Output 5 - table 6).

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	SMART Indicators	Means of verification	Important Assumptions
Impact: Plants and fungi from 7,500ha of miombo woodland surrounding Mount Mulanje are restored, managed and used sustainably by local communities creating biodiversity conservation and economic benefits (Max 30 words)			
Outcome: 500 hectares of miombo woodland being restored and 25,000 trees of at least 10 economically important native plants planted on 500 farmer's land as part of varied agroforestry practices benefiting biodiversity and supporting >10,200 people's livelihoods (Max 30 words)	0.1 5 value chain opportunities identified by the Q2 year 2 and collection practices aligned to the FairWild Standard by the project end. 0.2 1 new co-operative with 4 business centres formed with local communities that are officially registered with the government by the end of year 2. 0.3 A social enterprise formed by the end of year 1, with at least 1 new product in research and developed by Q2 year 3 (including storage and packaging), and markets connected for 5 products from economic native species by the project end. 0.4 500 people trained on alternative income opportunities, 200 receiving incomes from alternative livelihoods that exceed	0.1a Results of survey of sustainable use opportunities of 10-15 native economic species in 2022 0.1b FairWild audit or pre-audit results for 5 target native economic species 0.2a results of pre and post knowledge surveys of co-operative members to assess understanding of sustainable harvesting and processing 0.2b disengagement monitoring and analysis reports 0.2c government co-operative registration records 0.2d co-operative agreements with VNRMCs to sustainably manage land 0.2e. Nursery & plant distribution records. 0.3a Social enterprise registration	Businesses identified nationally and internationally remain interested in using raw materials in value chains for their products Community members stay engaged in co-operatives and/or wild harvesting of native plants Restoration practices identified and employed lead to greater biodiversity of degraded co-managed areas Economic returns from damaging practices (charcoal or firewood) remain stable Businesses identified nationally and internationally remain interested in using raw materials in value chains for their products at a price that makes the production of these wild

	incomes from firewood (MK134,854) by the project end. 0.5 500 ha of miombo woodland being protected to allow natural regeneration and baseline biodiversity understood across the degradation gradient with 25,000 trees of at least 10 target native economic species planted in 780 farmers' land by the project end..	0.3b New products with improved storage and durability. 0.3c business agreements for products 0.4a Survey results of charcoal and firewood value chain highlights incomes produced from 1 hectare conversion to charcoal/firewood. 0.4b Survey results of income from sustainable production from 1 hectare of land with selected native economic plants. 0.4c Market prices for goods from the selected native economic plants. 0.5a forest cover survey results 0.5b biodiversity survey results	goods economically viable for the local communities.
Output 1 The opportunities for sustainable use and market potential of at least 10 local plant and fungi species assessed	1.1 Project steering committee established in year 1, to guide and monitor project progress meeting biannually throughout the project. 1.2 National and international markets for products from 10-15 short-listed native economic species understood by end of year 1. 1.3 Maps of current local value chains for 10-15 short-listed native economic species, firewood and the charcoal industry produced identifying actors in the chain doing	1.1a Steering Committee minutes. 1.1b Monitoring and evaluation reports. 1.2a Market analysis report, including costs, potential incomes, multi-year cashflow and return on investment.	Community members involved in markets for native species, charcoal production and firewood collection players can be engaged so that valuation estimates can be made. Mitigated by ethnobotanist (and partner organisations) being already well known to the communities.

	collection, processing, transport, and sale by end of year 1. 1.4 At least 5 methods of improving storage, 5 new products, and 5 ways of advertising to increase the value of all or a subset of the 10-15 short-listed native economic species shown by end of year 1. 1.5 5 native economic species selected for sustainable development by Q1 year 2.	1.3a Value chain mapping reports that describe the actors involved from harvest to final customer sale. 1.4a Value addition reports that describe the opportunities for improved handling and storage, product development, and advertising. 1.5a Species selection workshop report detailing the evidence and reasons for species being selected or not 1.5b List of native economic species selected.	
Output 2 FairWild assessment carried out for 5 plant species and fungi species to identify gaps in knowledge to achieve FairWild certification	2.1 Sustainable harvest protocols for 5 selected species produced by the end of year 2. 2.2 Maps of the distribution and abundance, and gaps in knowledge of current practices of 5 selected species produced by Q3 year 2. 2.3 1 management plan for the social enterprise produced with all	2.1a Risk analysis reports describing species' resilience to harvesting pressure and classification (at low, medium or high risk of overharvesting). 2.1b Trials harvest regime results, 2.1c Sustainable offtake protocols. 2.2a & 2.3a Resource inventory reports produced.	Resource assessment activities do not show irretrievable losses of resources before sustainable use plans and training can be implemented. Mitigated by range of economically important species to select for further development.

	relevant documentation for FairWild certification by Q3 year 3 2.4 5 selected species audited or pre-audited by FairWild, including innovative new audit for fungi by the project end.	2.2b & 2.3b Resource assessment workshop reports highlighting knowledge gaps to understanding sustainability of management 2.4a FairWild certification awarded and/or pre-audit internal report with recommendations, publication of fungi pilot results.	
Output 3 At least 1 community co-operative established with 4 business centres (with at least 320 community members, 50% female) and trained to cultivate, harvest and process products from the 5 selected target species, and >10,000 households with raised awareness of the importance of sustainable management practices to biodiversity and people	3.1 At least 320 Community members (50% female) selected through the Forest Block Committee to be involved in the co-operative by Q2 year 2 3.2 At least 10 co-operative members understand co-operative management and administration and can access benefits from the Ministry of Industry and Trade with 1 new co-operative registered by the end of year 2. 3.3 250 community members (50% female) trained to sustainably harvest target species and using sustainable harvesting/ processing methods for selected native economic species by Q3 year 3 with at least 60 of these gaining incomes that exceeds annual incomes from	3.1a Community sensitisation and selection meeting minutes 3.1b Co-operative members lists. 3.2a List of selected community co-operative administrators 3.2b Training attendance records 3.2c Results of pre and post training knowledge surveys to demonstrate understanding of co-operative benefits 3.2d Government registrations of new co-operatives 3.3a Training attendance records 3.3b Results of pre and post sustainable harvesting and cultivation knowledge surveys to	Community members want to work within co-operatives and with the social enterprise in newly developed value chains, rather than sell what they produce directly to local markets reducing the impact of co-operative and social enterprise elements of this project. Mitigated by explaining the benefits of co-operatives and social enterprises during community engagements. Also by monitoring the extent of, and reasons for, disengagement should this happen.

	firewood (MK134,854) by the project end. 3.4. 300 single-headed household vulnerable women from firewood head-loading background – work in small production groups each making one of following - soaps, oils, polishes, creams, candles, etc for local marketing / sales by the end of year 2 and at least 140 of these receiving incomes that exceeds annual incomes from firewood (MK134,854) by end of project 3.5 The understanding of the importance of biodiversity to livelihoods, and ways and benefits of sustainable use increased at least 20% at EOP of at least 6 of 12 indicators identified in a baseline survey carried out in Q1, year 2 in Mulanje and Phalombe	demonstrate change in understanding how resources can be managed sustainably. 3.3c Sustainable use practices survey report 3.4a. CBO Group formation documentation. 3.4b. Production / business training reports. 3.4c. Group production sales reports. 3.5a Knowledge, attitudes and practices survey reports and analysis of change.	
Output 4 A social enterprise established, and people trained and supported to formalise and certify the value chains of 5 plant or fungi taxa	4.1 Recommendations from local mountain stakeholders, including community members, produced for how the social enterprise should be	4.1a Workshop attendance records 4.1b Social enterprise recommendations report	A good business incubator can be identified that is able to support the social enterprise establishment. Stakeholders maintain sustainable value chains supporting the social

	developed and managed by end of year 1. 4.2 Business incubator supporting the social enterprise by Q2 year 2 4.3 Social enterprise infrastructures supporting 5 co-operatives to benefit from new opportunities from the selected native plant and fungi species by end of year 2. 4.4 At least 1 new product developed from 1 or multiple of the 5 selected species that add value to them by Q2 year 3. 4.5 Business plans developed for the co-operative and the social enterprise, including marketing plans and branding guidelines by the end of the project.	4.2a Feasibility analysis report, including identification of a business incubator 4.2b Business incubator support 4.3a Social enterprise documents 4.3b Training attendance records 4.3c Results of pre and post training impact surveys after conservation entrepreneurship and value chain research, development, and management 4.4a Product development research 4.4b New products developed 4.5a Marketing plans produced including multi-year incomes, cashflow and return on investment. 4.5b Branding guidelines produced 4.5c Business plans	enterprise beyond project end. Mitigated by including co-management VNRMCs as architects of sustainable approaches, and owners of the model adopted. Also mitigated by long term involvement of WeForest, who will continue to provide technical and financial support to VNRMCs in the area for at least 10 years, keeping communities engaged
Output 5 1000 hectares of degraded co-managed land under restoration and cultivation with useful native plants and fungi to benefit people and biodiversity	5.1 A restoration strategy for degraded collaborative management areas created following engagement with 19 co-management Village Natural Resource Management Committees, local plant scientists, and expertise from WeForest and	5.1a Workshop attendance records and report 5.1b Restoration strategy maps showing how different areas of target site will be restored	The impacts on biodiversity of restoration can be fully measured given the short time frame of the project. Mitigated by WeForest/MMCT's commitment to continue monitoring the biodiversity beyond the project timeframe to show change over more than 3 years. The methodology will also

	the Ecological Restoration Alliance by end of year 1. 5.2. 50 community members (50% women) collecting seeds of at least 8 target economic species and delivering them to 4 local nurseries to propagate at least 25,000 seedlings for planting in agroforestry and 400 individuals for restoration planting trials by January 2025 5.3 500 community members (50% women) trained to plant and manage 25,000 plants of at least 8 agroforestry species on their land Q2 year 3. 5.4 100km of firebreaks established and 400 hectares under prescribed burns to protect parts of the 1,481 hectares from fire impacts by October 2024 to improve natural regeneration beyond the project. 5.5 Baseline biodiversity assessment completed, and 20 permanent monitoring plots established for monitoring of restoration strategy impacts beyond the project by December 2024. 5.6 30ha of highest degraded blocks receiving intensive natural	5.2a Training attendance records 5.2b Results of pre and post knowledge surveys to demonstrate the skills taken on 5.2c Nursery stock records 5.3a Training attendance records 5.3b Results of pre and post knowledge survey on how to plant, manage and monitor planted sites 5.4a Nursery sales records 5.4b Restored land maps 5.5a Biodiversity survey reports 5.5b Results of analysis of variance and change between site types to understand the % change difference in biodiversity between site types	investigate un-restored and restored degraded areas, with a baseline before restoration, to be able to robustly evaluate relative change based on the restoration interventions.

	regeneration support (weeding etc.) by December 2024	5.6a restoration activity reports	

Activities

1.1 Establish project steering committee and meet twice yearly to discuss project progress and make adaptive management decisions as needed

1.2 Local, national and international market analysis and value chain mapping, including firewood and charcoal industries

1.3 Value addition assessment

1.4 Species selection workshop to assess which 5 species are best to take forward

1.5 List of 5 prioritised native economic plant and fungi species produced

2.1 Risk analysis conducted to identify resilience of target species to harvesting pressure

2.2 Harvesting trials carried out

2.3 Sustainable harvest protocols produced for 5 economic plant and fungi species

2.4 Resource assessment fieldwork

2.5 Resource assessment workshops

2.6 FairWild checklist applied in audit or pre-audit, including fungi assessment pilot, for all 5 economic plant and fungi species

3.1 Community groups selected to be in co-operatives based of their interest, knowledge of the species

3.2 Co-operative groups trained in cultivation, sustainable harvesting and processing methods

3.3 Co-operative groups cultivating, harvesting and processing products from economic plant and fungi species sustainably

3.4 Co-operative managers / administrators selected

3.5 Ministry of Industry trains manager / administrators and registers co-operatives

3.4 Co-operative managers / administrators selected

3.6 Baseline Knowledge Attitude and Practice (KAP) survey undertaken to assess the general populace's thoughts on conservation and sustainable use of natural resources

3.7 Conservation and sustainable use of miombo promoted, with the target species on local radio, television, in schools and at events like the yearly porters' race

3.8 Second KAP survey to assess success of public awareness campaign and highlight activities still needed

4.1 Community and stakeholder engagement workshops to understand opinions on enterprise development options

4.2 Feasibility analysis for requirements to establish enterprise, including identification of business incubator option (legal structures, registration etc.)

4.3 Business incubator supports social enterprise to become officially established

4.4 Training on conservation entrepreneurship and support to establish for enterprise team

4.5 Relevant new product research carried out to create value added products from the 5 selected species

4.6 New product(s) developed from research

4.7 FairWild training delivered

4.8 Branding and product promotion training

4.9 Business plans for the co-operative and social enterprise developed

5.1 Land use assessment workshops to assess community co-management areas

5.2 Restoration strategy designed using the target species involving community co-management communities, local scientific expertise, expertise from the Ecological Restoration Alliance of Botanic Gardens

5.3 Collection and propagation training

5.4 Propagation of target species at community nurseries 5.5 Baseline biodiversity data collected from degraded co-managed land areas

5.6 Training to plant and manage restored sites

5.7 500 hectares of co-management areas restored, including with assisted natural regeneration of native plant and fungi species

5.8 At least 500 hectares of woodlots of useful native species under cultivation

5.9 Repeat biodiversity monitoring of sites

5.10 Analyse and report on biodiversity changes

Annex 3 Standard Indicators

Table 1 Project Standard Indicators

Please see the Standard Indicator Guidance for more information on how to report in this section, including appropriate disaggregation. N.B. The annual total is not cumulative. For each year, only include the results achieved in that year. The total achieved should be the sum of the annual totals.

DI Indicator number	Name of indicator	If this links directly to a project indicator(s), please note the indicator number here	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total achieved	Total planned
DI-B03	Number of new or improved community management plans available and endorsed	5.1	Number of plans	Co-management plan		2	0	2	2
DI-A03	Number of local or national organisations with enhanced capability and capacity.	-	Number of organisations	NGO		1	1	1	1
DI-D01	Area of land or sea under ecological management	5.4	Number of hectares	Miombo woodland		211.75	261.2	311.89	500
DI-D01b	Area improved through restoration	5.4	Number of hectares	Miombo woodland		211.75	261.2	311.89	
DI-A05	Number of people in eligible countries who have completed structured and relevant training	5.3	Number of people	Women, IPLC		9	220	229	17
DI-A05	Number of people in eligible countries who have completed structured and relevant training	5.3	Number of people	Men, IPLC		6	92	98	13
DI-D03	Number of people with enhanced livelihoods	3.3 / 3.4 / 5.3	Number of people	Women, IPLC		327	485	812	
DI-D03	Number of people with enhanced livelihoods	3.3 / 3.4 / 5.3	Number of people	Men, IPLC		119	100	219	
DI-D03a	Number of people with Sustainable Livelihoods created or protected	5.3	Number of people	Women, IPLC		296	400	696	

DI Indicator number	Name of indicator	If this links directly to a project indicator(s), please note the indicator number here	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total achieved	Total planned
DI-D03a	Number of people with Sustainable Livelihoods created or protected	5.3	Number of people	Men, IPLC		95	88	183	
DI-D03b	Number of people with improved income	3.3 / 3.4	Number of people	Women, IPLC		32	87	119	
DI-D03b	Number of people with improved income	3.3 / 3.4	Number of people	Men, IPLC		24	12	36	

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the **correct template** (checking fund, scheme, type of report (i.e. Annual or Final), and year) and **deleted the blue guidance text** before submission?	Y
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	Y
Is your report more than 10MB? If so, please consider the best way to submit. One zipped file, or a download option, is recommended. We can work with most online options and will be in touch if we have a problem accessing material. If unsure, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	N
If you are submitting photos for publicity purposes, **do these meet the outlined requirements** (see section 14)?	N
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Y
Have you provided an updated risk register? If you have an existing risk register you should provide an updated version alongside your report. If your project was funded prior to this being a requirement, you are encouraged to develop a risk register.	Y
Have you involved your partners in preparation of the report and named the main contributors	Y
Have you completed the Project Expenditure table fully?	Y
Do not include claim forms or other communications with this report.	